Haley & Aldrich, Inc.
2033 Gateway Place, Suite 500
San Jose, CA 95110

Tel: 408-961.8785
Fax: 619.285-7180
HaleyAldrich.com

HALEY & ALDRICH

29 June 2009
File No. 36067-001

Ms. Alana Lee
Project Manager
U.S. Environmental Protection Agency Region 9
Superfund Division SFD-7-3
75 Hawthorne Street
San Francisco, CA

Subject: Submittal of Final Supplemental Remedial Investigation for the Vapor Intrusion Pathway, Middlefield-Ellis-Whisman Study Area, Mountain View and Moffett Field, California

Dear Alana:

Please find enclosed the Final Supplemental Remedial Investigation for the Vapor Intrusion Pathway, Middlefield-Ellis-Whisman Study Area, Mountain View and Moffett Field, California.

If you have questions regarding this document, please feel free to call.

Sincerely yours,
HALEY & ALDRICH, INC.

Elie H. Haddad, P.E.
Vice President

Enclosure

c: MEW Distribution List

C:\Documents and Settings\Ehaddad\My Documents\MEW RIFS\RI\Final\Transmittal Letter.doc

FINAL SUPPLEMENTAL REMEDIAL INVESTIGATION FOR VAPOR INTRUSION PATHWAY MIDDLEFIELD-ELLIS-WHISMAN STUDY AREA MOUNTAIN VIEW AND MOFFETT FIELD, CALIFORNIA

by

Haley & Aldrich, Inc.
San Jose, California

Locus Technologies
Mountain View, California

for

Fairchild Semiconductor Corporation
Intel Corporation
National Aeronautics and Space Administration (NASA)
NEC Electronics America, Inc.
Raytheon Company
Schlumberger Technology Corporation
SMI Holding LLC
SUMCO USA Corporation
Vishay GSI, Inc.

File No. 36067-001
June 2009

TABLE OF CONTENTS

LIST OF TABLES

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Description
106 Order	Administrative Order for Remedial Design and Remedial Action
AOI	Area of Investigation
AS	Air Sparging
ASHRAE	American Society of Heating, Refrigeration, and Air Conditioning Engineers
BAAQMD	Bay Area Air Quality Management District
bgs	Below ground surface
Cal/EPA	California Environmental Protection Agency
CD	Consent Decree
cfm	Cubic feet per minute
COC	Chemicals of Concern
CSF	Cancer Slope Factor
1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
1,2-DCB	1,2-Dichlorobenzene
1,1-DCE	1,1-Dichloroethene
1,2-DCE	1,2-Dichloroethene
EA	Endangerment Assessment
EPA	U.S. Environmental Protection Agency
ERD	Enhanced Reductive Dechlorination
EV	Enhanced Ventilation
Fairchild	Fairchild Semiconductor Corporation
Freon 113	Trichlorotrifluoroethane
FS	Feasibility Study
ft^2	Square feet
GAC	Granular Activated Carbon
HQ	Hazard Quotient
HVAC	Heating, Ventilation and Air Conditioning
Intel	Intel Corporation
IRIS	Integrated Risk Information System

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Description
LCS	Laboratory Control Sample
Locus	Locus Technologies
MEW	Middlefield-Ellis-Whisman
mg/kg	milligrams per kilogram
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
NAS	U.S. Naval Air Station
NASA	National Aeronautics and Space Administration
Navy	U.S. Department of the Navy
ND	Not Detected
NEC	NEC Electronics America, Inc.
NPDES	National Pollutant Discharge Elimination System
NRC	National Research Council
NRP	NASA Research Park
OAQPS	Office of Air Quality Planning and Standards
OEHHA	Office of Environmental Health Hazard Assessment
PCE	Tetrachloroethene or perchloroethene
PRGs	Preliminary Remediation Goals
PRP	Potentially Responsible Party
ppb	Parts per billion
QA/QC	Quality Assurance/ Quality Control
RAOs	Remedial Action Objectives
Raytheon	Raytheon Company
RGRP	Regional Groundwater Remediation Program
RI	Remedial Investigation
ROD	Record of Decision
RPD	Relative Percent Difference
RRWs	Regional Recovery Wells
SC	Sealed Conduits

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Description
SCRWs	Source Control Recovery Wells
SIM	Selected Ion Mode
SMI	SMI Holding LLC
SSD	Sub-slab Depressurization
SSP	Sub-slab Pressurization
STC	Schlumberger Technology Corporation
SUMCO	SUMCO USA Corporation
SVE	Soil Vapor Extraction
TAGA	Trace Atmospheric Gas Analyzer
1,1,1-TCA	1,1,1-Trichloroethane
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
UTL	Upper Tolerance Limit
Vishay	Vishay GSI, Inc.
VOCs	Volatile Organic Compounds
WATS	West Side Aquifer Treatment System

GLOSSARY

Name	Definition
Air Exchange Rate	Air Exchange (AE) Rate is the rate at which outside air replaces indoor air in a space. For example and AE rate of 1/hr means that outside air replaces the indoor in a space once each hour.
Background outdoor air	Background outdoor air in the context of indoor air/vapor intrusion refers to the presence of chemicals due to sources other than volatilization from the subsurface. Examples of background sources may include local industrial sources and more distant sources.
Background indoor air	Background (Indoor Air) in the context of indoor air/vapor intrusion refers to the presence of a chemical in indoor air that is contributed by a source other than vapor intrusion. Background for indoor air could be the result of indoor sources (consumer products) and/or outdoor sources (local industry, volatilizations from the subsurface, and more distant sources).
Baseline Building	A Baseline Building is a building where no vapor intrusion mitigation activities (e.g., sealing conduits/ potential pathways, HVAC system improvements etc.) have been implemented prior to indoor air sampling.
Baseline Condition	Baseline Condition is the status of a building prior to implementation of any vapor intrusion mitigation activities (including sealing conduits/potential pathways and HVAC system improvements, etc.)
Exhaust Air	Exhaust air is air that is removed from a space that is discharged to the outside.
Interim Action Level	The Interim Action Level is the indoor air contaminant concentration whereby vapor intrusion mitigations measures are required to reduce the concentrations. The Interim Action Level for TCE in indoor air at the MEW Site is 1 $\mu g/m^3$ of TCE in air for residential buildings and 2.7 $\mu g/m^3$ of TCE in air for commercial/non-residential buildings.
MEW Area	The area around Middlefield Road, Ellis Street, Whisman Road, and U.S. Highway 101 in Mountain View, California.
MEW Companies	Fairchild Semiconductor Corporation (Fairchild); Schlumberger Technology Corporation (Schlumberger); NEC Electronics America, Inc. (NEC); SMI Holding LLC (SMI); SUMCO USA Corporation (SUMCO, formerly Siltec Corporation); Vishay GSI, Inc. (Vishay, formerly General Instrument Corporation); Intel Corporation (Intel); and Raytheon Company (Raytheon)
Outdoor ambient air	Outdoor ambient air is the air surrounding a building. It is the air that enters the building through a ventilation system or infiltration through windows, doors, and other openings to the outside.

GLOSSARY

Name	Definition
Outdoor Make-up Air	Outdoor make-up air is the outdoor air supplied into the building to replace exhaust air.
Preliminary Remediation Goals (PRGs)	PRGs are preliminary cleanup goals for individual chemicals given a specific medium (soil, water, air) and land use (residential, commercial) at CERCLA sites. PRGs are used for site "screening" to help identify areas, contaminants, and conditions that do not require further federal attention at a particular site. PRGs are not de facto cleanup standards and should not be applied as such.

EXECUTIVE SUMMARY

This Supplemental Remedial Investigation (RI) report presents the results of the investigation of the potential vapor intrusion pathway into current and future buildings overlying the shallow volatile organic compound (VOC) plume at the Middlefield-Ellis-Whisman (MEW) Study Area in Mountain View, California and a portion of the former U.S. Naval Air Station (NAS) at Moffett Field (the "Site"). This RI report was prepared in response to the U.S. Environmental Protection Agency's (EPA's) 8 March 2006 request for a Supplemental Remedial Investigation/ Feasibility Study (RI/FS) to address the vapor intrusion pathway. The data collected to date indicate that there is no immediate or short-term health risk from the vapor intrusion pathway, but EPA has determined it is appropriate to amend the 1989 Record of Decision (ROD) to ensure the protectiveness of the remedy by addressing the potential for long-term exposure to VOCs through the vapor intrusion pathway.

Extensive investigations have been performed at the Site to evaluate the vapor intrusion pathway. This RI report compiles the results from the investigations performed by the MEW Companies, Navy, and NASA, provides a comprehensive discussion of the interim mitigation measures implemented to date, and discusses findings based on the large dataset accumulated during this RI process. Findings from this RI support the development of the Supplemental FS.

Between 2003 and 2006, approximately 2,800 air samples were collected from 47 commercial buildings and 31 residences at the Site. The types of samples collected at the Site included indoor air, pathway air, outdoor ambient air, background outdoor air, and quality assurance samples. The indoor and pathway air results were evaluated against: 1) Background outdoor air and outdoor ambient air concentrations; 2) Short-term health-based screening levels; and 3) Long-term indoor air preliminary remediation goals (PRGs). For the purpose of the RI, EPA used an interim action level for TCE of 1 $\mu g/m^3$ for residential occupancy and 2.7 $\mu g/m^3$ for commercial occupancy. These values were derived using EPA's provisional health protective range for TCE and the California EPA health-based screening level for long-term exposure to TCE. The background outdoor TCE concentrations calculated for this Site, based on an upper tolerance limit at the 95th percentile with 95% confidence, were 1.8 $\mu g/m^3$ (using all data) and 0.57 $\mu g/m^3$ (eliminating a subset of unusually elevated concentrations).

Approximately 2,800 air samples have been collected from 47 commercial buildings and 31 residences at the Site. The results suggest the following conclusions:

- There are no short-term health risks.
- TCE, PCE, chloroform, 1,1,1 TCA and Freon 113 were frequently detected in background outdoor air samples. TCE concentrations exceeded the interim action level of 1 $\mu g/m^3$ in 11 of 278 background or outdoor air samples.
- Most sampled buildings at the Site did not exceed long-term indoor air quality goals. Vapor intrusion resulted in indoor air concentrations exceeding long-term exposure goals at the Site where i) commercial building HVAC systems did not provide sufficient outside air exchange rate [defined as the rate at which the indoor air is exchanged with outdoor air] in all or part of the building, ii) the building had a basement or an earthen cellar, or iii) utilities provided a preferential pathway into the building enclosure. In addition, as demonstrated in one particular case, there is a potential for vapor intrusion if an HVAC system is designed to supply air through a sub-floor panel that creates a zone of negative pressure underneath the raised floor, inducing VOC migration from the subsurface, and pulling the VOCs from the sub-floor panel into the building..
- TCE is the primary chemical of concern for vapor intrusion at the Site, although other chemicals such as cis-1,2-DCE and 1,1-DCE are useful indicators to demonstrate subsurface vapor intrusion into a building. Only TCE (and in one basement both TCE and cis-1,2-DCE) exceeded EPA's long-term goals in indoor air.
- Vapor intrusion mitigation measures implemented at the Site were successful in decreasing TCE to below its interim action level in the indoor air breathing zone, with the exception of TCE concentrations in an occasionally occupied wet basement, where the

basement intercepted contaminated groundwater, and the groundwater was seeping onto the basement floor.

- The highest indoor TCE concentrations and most frequent percentage of concentrations greater than interim action level of 2.7 µg/m^3 were found in a commercial building with a basement in which there is direct contact with groundwater (644 National Avenue). Elevated concentrations were also found in a NASA building in which the ventilation system introduced air from beneath the raised floor into the building (N210).

- In commercial buildings, TCE concentrations were not detected above the 2.7 µg/m^3 interim action level when the buildings were occupied and standard building occupancy ventilation was operating properly (with the exception of some isolated maximum values that were not consistent with co-located, previous, or subsequent sample results).

- In those buildings where samples were collected both when the HVAC system was off for an extended period of time and then turned back on, samples collected when ventilation was off generally had significantly higher TCE concentrations than samples collected when ventilation was on. In a majority of cases, there was at least a 10-fold reduction in TCE air concentrations when the HVAC system is on. There is a general decrease of TCE concentrations with increasing air exchange rates.

- In general it appears that buildings overlying the higher groundwater concentrations have a higher likelihood of indoor air samples exceeding the TCE interim action level of 2.7 µg/m^3. It also appears that sampled buildings in all the groundwater concentration categories exceeded the interim action level of 2.7 µg/m^3 TCE when the building is not sufficiently ventilated.

- The TCE concentrations in indoor air were reduced after implementation of mitigation measures (i.e., sealing conduits, enhanced ventilation, and/or source control).

- In most cases there is no significant difference in measured TCE concentrations between building floors with similar ventilation conditions. When TCE exceeded the interim action level, the floor immediately above the subsurface (basement or 1st floor) had higher concentrations than the others.

- The residences showed TCE below the interim action level of 1 µg/m^3 with the exception of one residence that was found to have an indoor source of TCE, and two residences in which a single exceedance of the interim action level could not be subsequently repeated. Two unoccupied and now demolished residences in Wescoat Housing sampled in 2003 and 2004 showed TCE above the interim action level.

- Seasonal temperature variation does not appear to significantly affect measured indoor air TCE concentrations. Therefore, data collected over a variety of seasons provide an appropriate range of indoor air concentrations.

- Analyses of volatilization from the subsurface to the outdoor air indicate that concentrations in outdoor air from the subsurface are significantly lower than the interim action level, and that the small contribution does not result in outdoor air concentrations above background

Several interim mitigation measures were implemented at the Site. The following is a summary of the effectiveness of these measures:

- Sealing of open dry conduits that penetrate the sub-slab: In general, sealing dry conduits resulted in decreased concentrations of VOCs transmitted through the conduits. Percentage decrease of up to 99% was observed. In three cases where TCE concentrations were below the interim action level before sealing of conduits, TCE concentrations remained virtually the same, or increased slightly after conduits were sealed, but levels remained below the interim action level.

- Refurbishing HVAC systems to supply additional outdoor make-up air: HVAC has been shown to be an effective method to reduce indoor air concentrations by providing outdoor make-up air to the indoors. All buildings where adequate outdoor make-up air is provided to the indoors showed TCE concentrations below interim action levels.

- Installation of exhaust/ventilation systems in sub-slab structures (basements, earthen cellars) and in utility rooms: Ventilation of utility rooms and sub-slab

structures is effective in reducing indoor air concentrations to below long-term exposure goals. Installation of an exhaust system in a basement in a commercial building showed a 99% reduction in TCE concentrations on the first and second floor. However, the effectiveness of ventilation in a basement where groundwater impacted with VOCs accumulates may be limited.

- Installation of air purification systems to reduce indoor air concentrations in enclosed utility rooms: Air purification systems have been demonstrated to be effective in reducing indoor air concentrations to below the TCE interim action level in relatively small enclosed spaces (e.g., utility rooms). Percentage reduction in TCE concentrations varied between 37% (at lower TCE concentrations) and 96% (at higher TCE concentrations).

- Sub-slab pressurization: A sub-slab pressurization system installed at a new development on the Site shows that such a system would be effective in preventing vapor migration into buildings.

- Installation of vapor barriers and passive ventilation systems under homes: Indoor samples collected from a new residential development at the Site where homes were constructed with a vapor barrier and with a passive ventilation system showed TCE below the interim action level, demonstrating effectiveness of these systems under residences.

There are sufficient data available on the sampled buildings to move forward with a feasibility study. Data analysis of the sampled buildings can be used to focus the need for further evaluation, sampling or mitigation of the un-sampled buildings as part of the feasibility study. The RI recommends collection of the following additional information

- Air exchange rates were estimated from minimum economizer settings and from estimated air velocities into manual dampers. These air exchange rates can change depending on the temperature and other building parameters. Additional information on operation of the HVAC systems would be helpful in evaluating proper operational parameters for these HVAC systems.

- There are 28 commercial buildings that overlie the plume south of U.S. Highway 101 that have not been sampled. Walkthroughs of 20 of these buildings have been completed, and information has been collected on the building conditions that likely will impact the buildings' potential to have vapor intrusion. Walkthroughs of the remaining buildings should be completed.

- North of U.S. Highway 101, there are 114 buildings in the Vapor Intrusion Study Area, of which 36 commercial buildings are in what is referred to as the Navy West-side Aquifers Treatment System (WATS) area, where the Navy is addressing impacted groundwater by operating a groundwater extraction and treatment system. Seventeen additional buildings are in areas over suspected Navy sources that have not been investigated. Walkthroughs in some of these buildings have not been completed, and information on the likelihood of vapor intrusion has not been assessed. However, many of these buildings are unoccupied and scheduled to be demolished as part of NASA's redevelopment plans. Buildings that are occupied, will remain, and are planned to be occupied need to be further assessed for the potential for vapor intrusion

There are some outstanding issues on the RI:

- The Navy has declined to participate in this RI/FS process. It is not known if the Navy will implement the findings of the vapor intrusion FS and Proposed Plan in the Navy area of responsibility.

- Owners/tenants in 7 commercial buildings south of U.S. Highway 101 have denied access or did not respond to several requests for access. These buildings have been referred to EPA for further follow-up.

The Remedial Action Objectives (RAOs) for the Site established in the 1989 MEW ROD were to reduce levels of chemicals in groundwater (and chemical sources to groundwater) so that the groundwater could ultimately be used for domestic purposes. At that time, no RAOs for the vapor intrusion pathway were identified. RAOs typically specify the chemicals of concern, the exposure route and an acceptable chemical level or range of levels.

The recommended RAO for this indoor air pathway is to ensure that building occupants (workers and residents) are protected from Site contaminants by preventing the contaminants in the subsurface from migrating into indoor air or accumulating in enclosed building spaces at levels

of concern. In addition, another RAO for the Site is to reduce or minimize the source of vapor intrusion (i.e., Site contaminants in shallow groundwater), to levels that would be protective of current and future building occupants such that the need for a vapor intrusion remedy would be minimized or no longer be necessary. This RAO is not being addressed by the proposed vapor intrusion remedy; instead, it will be addressed by the groundwater remedy which is being re-evaluated in a separate feasibility study for the Site.

FINAL SUPPLEMENTAL REMEDIAL INVESTIGATION FOR THE VAPOR INTRUSION PATHWAY MIDDLEFIELD-ELLIS-WHISMAN STUDY AREA MOUNTAIN VIEW AND MOFFETT FIELD, CALIFORNIA

1. INTRODUCTION

This Final Supplemental Remedial Investigation (RI) report presents the results of an evaluation of the investigation of the potential vapor intrusion pathway into current and future buildings overlying the shallow volatile organic compound (VOC) plume at the Middlefield-Ellis-Whisman (MEW) Study Area in Mountain View, California and a portion of the former U.S. Naval Air Station (NAS) at Moffett Field. This area is also referred to in this document as the Site. The Vapor Intrusion Study Area is defined as the area over the estimated 5 µg/L TCE concentration in the shallow groundwater plume plus 100 feet buffer zone. This RI report was prepared in response to the U.S. Environmental Protection Agency's (EPA's) 8 March 2006 request for a Supplemental Remedial Investigation/Feasibility Study (RI/FS) to address the vapor intrusion pathway in accordance with EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (EPA 1988).

In the 8 March 2006 letter to the MEW Companies and the Navy, EPA determined that additional response actions are necessary to address the vapor intrusion pathway at the Site, and requested a Supplemental RI/FS Work Plan and report to address the vapor intrusion pathway into current and future buildings overlying the shallow groundwater plume. The data collected to date indicate that there is no immediate or short-term health risk from the vapor intrusion pathway, but EPA has determined it is appropriate to amend the 1989 Record of Decision (ROD) to ensure the protectiveness of the remedy by addressing the potential for long-term exposure to VOCs through the vapor intrusion pathway.

This RI report was prepared on behalf of the following entities:

- Fairchild Semiconductor Corporation (Fairchild); Schlumberger Technology Corporation (STC); NEC Electronics America, Inc. (NEC); SMI Holding LLC (SMI); SUMCO USA Corporation (SUMCO, formerly Siltec Corporation); and Vishay GSI, Inc. (Vishay, formerly General Instrument Corporation) all of which were named Respondents in the Administrative Order for Remedial Design and Remedial Action, EPA Docket no. 91-4, (106 Order) issued by the EPA (EPA 1990a);

- Intel Corporation (Intel) and Raytheon Company (Raytheon), which entered into the MEW Consent Decree (CD) with the EPA (U.S. District Court Case No. C9120275JW); and

- National Aeronautics and Space Administration (NASA)

The companies listed in subparagraphs 1 and 2 above are generally referred to as the MEW Companies.

The U.S. Department of the Navy (Navy) has chosen to not participate in the Supplemental RI/FS process at this time. It is not known at this time how the Navy plans to evaluate vapor intrusion in buildings that overlie known and potential Navy sources or in buildings overlying groundwater with VOCs on Moffett Field for which the Navy has responsibility.

The MEW Companies and NASA submitted a Supplemental RI/FS Work Plan to EPA on 12 May 2006 (Locus 2006a), and EPA provided comments on 16 June 2006. The Supplemental RI and FS reports were prepared in August and October 2006, respectively, in accordance with that work plan and EPA's comments. EPA provided comments on the Supplemental RI and FS in November 2007, and revised reports were submitted in January/February 2008 (Locus 2008a&b). This Final Supplemental RI report incorporates final revisions requested by EPA. Responses to EPA's comments are included in Appendices A and D of this report. A Final Feasibility study was prepared concurrently with this document.

1.1 Reasons and Purpose of Supplemental RI

A baseline human health risk assessment for the Site was conducted in the 1980s, culminating in the issuance, in 1988, of the "Endangerment Assessment for the Middlefield-Ellis-Whisman Site in Mountain View, California" (EA; ICF 1988). For those exposure pathways that were quantitatively evaluated in the EA, the exposure assumptions that were used are considered both conservative and reasonable in evaluating risk. The EA focused on the potential for future exposure to contamination if the groundwater and its contaminant sources were left untreated, and if that water was used for domestic purposes (e.g., drinking, showering, washing). Exposure to contamination through these pathways would contribute the greatest risk to human health if those pathways were complete.

Although groundwater at the Site is not currently used for drinking and other potable use, cleanup actions are being taken at the Site to restore groundwater to its beneficial use. Because the chemicals at the Site are primarily in the groundwater, the EA concluded that potential exposure to Site chemicals through the inhalation pathway presented negligible risks. Therefore, no Remedial Action Objectives (RAOs) for mitigating the subsurface vapor intrusion pathway were identified.

Since 1988, however, the understanding of the fate and transport of chemicals in the subsurface to the ambient air has evolved. Under certain conditions, VOCs in the subsurface could emit vapors that can migrate upward through subsurface soils and enter overlying buildings through cracks in floors or through piping conduits and other preferential pathways. In November 2002, EPA's Office of Solid Waste and Emergency Response released an external review draft *"Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils"* that focuses specifically on this pathway. EPA identified the Site as one requiring evaluation of the potential for vapor intrusion into indoor air.

In an 8 March 2006 letter, EPA indicated that additional response activities are necessary to address the vapor intrusion pathway from the commingled contaminated shallow groundwater at the Site (EPA 2006). In the letter, EPA requested the development of a Supplemental RI/FS Work Plan and Report to address the vapor intrusion exposure pathway into current and future buildings overlying the shallow groundwater contamination. The existing soil and groundwater remedy does not address the risks from long-term exposure to VOCs through the vapor intrusion pathway. All of the air data collected to date indicates that there is no immediate or short-term health concern from the vapor intrusion pathway; however, EPA concluded that there is a potential for concern due to long-term exposure to TCE through this pathway. Therefore, EPA has determined that it is necessary to amend the 1989 ROD to ensure the protectiveness of the remedy by addressing the potential for long-term exposure to VOCs at unacceptable levels through the vapor intrusion pathway. The FS is intended to

identify and evaluate a range of alternatives to ensure that VOCs in indoor air from the subsurface do not exceed EPA's long-term exposure goals.

Extensive remedial investigations have been performed at the Site to evaluate the vapor intrusion pathway into buildings in accordance with work plans previously approved by EPA (Locus 2003a; GeoSyntec 2003a; MACTEC 2003a&b, 2004; Navy 2003b). The purpose of this RI report is to compile the results from the vapor intrusion investigations performed by the MEW Companies, Navy and NASA for 39 commercial and 31 residential buildings and to provide a comprehensive evaluation of conditions under which vapor intrusion may be occurring. The report also evaluates interim mitigation measures implemented to date and discusses findings relevant to developing a Supplemental Feasibility Study (FS). The FS (Locus 2006c, 2008a, 2008b) addresses the long-term management and mitigation of potential vapor intrusion to current and future buildings at the Site by developing and evaluating alternatives to reduce health risks for occupants of buildings affected by vapor intrusion.

In 2005, EPA Region 9 established an interim TCE action level of 1 $\mu g/m^3$ for residential settings and 2.7 $\mu g/m^3$ for commercial, non-residential settings and subsequently in 2008, EPA Region 9 proposed final TCE action levels of1 and 5 $\mu g/m^3$ for residential and commercial settings, respectively)., With the TCE action levels and indoor air preliminary remediation goals for other chemicals of concern at the Site (see Section 4.2.3), EPA determined a risk assessment was not necessary to assess whether remedial action is warranted. As indicated in EPA Guidance (*Risk Assessment Guidance for Superfund Volume 1 Human Health Evaluation Manual, 1989*) the goal of the human health evaluation process is to provide a framework for developing the risk information necessary to assist decision-making at remedial sites to provide; 1) an analysis of baseline risk and help determine for action at sites, 2) a basis for determining levels of chemicals that can remain onsite and still be adequately protective of public health and 3) a basis for comparing potential health impacts of various remedial alternatives. EPA has indicated that this process will be accomplished by comparison to EPA's action levels for TCE and short-term and long-term health-based screening levels for the other Site chemicals of concern. The MEW Companies believe there are many uncertainties when these values are used to meet the objectives of the NCP regulations. Therefore, although a formal risk assessment has not been included in this report, a discussion of these items is presented.

1.2 RI Report Organization

This report begins with a discussion of the Site background and setting in Chapter 2. Chapter 3 describes the conceptual model. Chapter 4 presents the results and findings of the remedial investigation performed to evaluate the vapor intrusion pathway, and describes the interim remedial actions implemented to date. Chapter 5 includes an analysis of the key variables affecting the indoor air concentrations in the sampled buildings. It also includes an evaluation of the remedial measures implemented to address vapor intrusion. Chapter 6 includes a summary of findings and recommended Remedial Action Objectives for the vapor intrusion pathway.

2 SITE BACKGROUND AND SETTING

The Site is located in the City of Mountain View, in Santa Clara County, California and on part of Moffett Field (Figure 2-1). Previous investigations at the Site have yielded sufficient information to design and implement extensive soil and groundwater remedial activities by the MEW Companies, the Navy, and NASA. These remedial actions included separate soil and groundwater source control measures and the joint Regional Groundwater Remediation Program (RGRP). These actions were performed consistent with the EPA-issued ROD (EPA 1989a) and subsequent Explanations of Significant Differences (EPA 1990b, 1996) and EPA-approved design and operation and maintenance reports.

2.1 Site History

The area around Middlefield Road, Ellis Street, Whisman Road, and U.S. Highway 101 in Mountain View includes locations of several current and former semiconductor and other manufacturing and industrial facilities. Until 1959, the area south of U.S. Highway 101 was used for agricultural purposes, at which time the area began to be commercially developed with light-industrial facilities. Operations in this area have included semiconductor and electronics manufacturing, metal finishing, and other activities that used chemicals. While in operation, these facilities required the storage, handling, and use of a variety of chemicals, particularly solvents and other compounds in manufacturing processes. Some of the chemicals leaked or were otherwise released to the ground.

Since the 1990s, major redevelopment and reuse has occurred in the MEW Area. Several structures were demolished and new tenants occupy new office complexes. These new companies were not operating at the time of the chemical releases to the environment and are not currently involved with the investigation and cleanup activities in the MEW Area. During the redevelopment process, addresses of some former properties changed. Table 2-1 shows the former and current MEW property addresses and Figure 2-2 provides a building outline of the MEW Area. The MEW Area is currently zoned for commercial, light industrial, and residential use, and the City of Mountain View has indicated that it has no current plans to change the zoning in the MEW Area. The MEW Area is not located in an environmentally sensitive area (EPA 2004b).

The former NAS Moffett Field is located just north of U.S. Highway 101. NAS Moffett Field was commissioned in 1933, and the NASA facility opened there in 1940 as a laboratory of the National Advisory Committee on Aeronautics. The Navy operated continuously at NAS Moffett Field until it transferred most of the facility (with the exception of Navy housing – Orion Park and Wescoat Housing areas) to NASA in July 1994 (EKI 2001). The Navy is responsible under a Federal Facilities Agreement with EPA and the State of California to investigate and clean up releases on Moffett Field. NASA conducts its ongoing environmental activities pursuant to a Memorandum of Understanding between the Navy and NASA (Navy and NASA 1992). Current uses of the area north of U.S. Highway 101 overlying portions of the regional groundwater VOC plume include: military housing (Wescoat Housing) currently under residential redevelopment, Hangar One, air operations, administrative offices, various storage buildings, and historic structures. Land use is described in the NASA Moffett Field Comprehensive Use Plan (NASA 1994). There are no current plans to change ownership (EKI 2001).

Table 2-1: Former and Current MEW Property Addresses

MEW Company	Former Facility Address	Current Address
Fairchild Semiconductor Corp.	369/441 North Whisman Road (Building 19/ Buildings 13 and 23) 515/545 North Whisman Road (Buildings 1 and 2) 313 Fairchild Drive (Buildings 3 and 4) 464 Ellis Street (Building 20) 401 National Avenue (Building 9) 644 National Avenue (Building 18)	369/379/389/399 North Whisman Road 515/545 North Whisman Road 313/323 Fairchild Drive 464/466/468 Ellis Street 401 National Avenue 644 National Avenue
Intel Corp.	365 East Middlefield Road (Lots 3 and 4)	355/365 East Middlefield Road 401 East Middlefield Road
NEC Electronics	501 Ellis Street	501 Ellis Street
Raytheon Company	350 Ellis Street 415 East Middlefield Road (Lots 4 and 5)	350/370/380 Ellis Street 401/415 East Middlefield Road
SMI Holding LLC	455/485 East Middlefield Road	455/487 East Middlefield Road
Vishay/SUMCO	405 National Avenue	425 National Avenue

The regional plume is located beneath portions of NASA's Ames Research Center and NASA's redevelopment area – NASA Research Park. Future land use in this area of Moffett Field is described in NASA's Final Programmatic Environmental Impact Statement (NASA 2002). New educational, office, research and development, museum, conference center, housing, and retail spaces are planned for NASA Research Park. Plans also include the demolition of non-historic structures. Residential development may be planned over areas of the regional plume. High-density office, research and development space is also planned for NASA Research Park.

2.2 MEW Hydrogeology

Groundwater aquifers beneath the Site consist of shallow and deep aquifer systems, which are separated by a laterally extensive aquitard approximately 40 feet thick. The shallow aquifer system is generally less than 160 feet below ground surface (bgs) south of U.S. Highway 101 and generally less than 100 feet bgs north of U.S. Highway 101. Subdivisions within the shallow aquifer have been designated the "A/A1", "B1/A2", "B2" and "B3" aquifers. The regional aquitard is designated the "B/C" aquitard. The zones below the "B/C" aquitard are termed the "C" aquifer and the Deep aquifers. Groundwater flow in the shallow aquifer zone is generally to the north, while flows in the "C" and Deep aquifers are generally to the northeast. The Deep aquifers are used for drinking water supply by the City of Mountain View from wells that are located outside and upgradient of the MEW plume. The shallow and deep aquifer systems at the Site are not used for drinking water.

Table 2-2 shows approximate depths of aquifer zones and Figure 2-3 shows a typical geological cross section at the Site.

Table 2-2: Depth of Aquifer Zones

Aquifer Zone	Approximate Depth Interval Below Ground Surface
"A" [or "A/A1"]	0 to 45 feet
"B1" [or "B1/A2"]	50 to 75 feet
"B2"	75 to 110 feet
"B3"	120 to 160 feet
"C"	200 to 240 feet
"Deep"	Generally deeper than 200 feet

For the most part, the direction of the vertical gradients across the "A/B1" aquitard is upward. The locations where this is not the case, are near pumping wells in the "B1" aquifer where there are no pumping wells in the "A" aquifer.

The hydraulic gradient in the "A/A1" aquifer is approximately 0.006 feet per foot. Groundwater generally flows to the north. Slurry walls constructed at the Site locally divert groundwater around the walls. Regionally, the seasonal variation in water elevations is approximately 0.7 feet, with the high levels in the spring and low levels in the autumn.

2.3 Subsurface Remedial Investigations

Subsurface investigations were initiated south of U.S. Highway 101 in 1981. Since then, a substantial amount of groundwater and soil investigation, monitoring and remediation has been completed at the Site. This work has produced a large database containing information regarding the local geology and hydrogeology, and the distribution of chemicals in the soil and groundwater. Remedial investigation efforts have included over one thousand soil borings, soil gas collection, and thousands of soil and groundwater samples. During the investigation and thereafter, the MEW Companies, the Navy and NASA also installed over 1,200 monitoring wells to assess and evaluate the groundwater contamination and ongoing cleanup activities.

As part of the Navy's 1984 Initial Assessment Study at Moffett Field (NEESA 1984), chemicals including trichloroethene (TCE), tetrachloroethene (PCE) and petroleum hydrocarbons were found to have commingled with the regional groundwater plume. All the potential Navy source areas on Moffett Field contributing to the regional groundwater plume have not been fully investigated, however, the EPA, MEW Companies, NASA and the Navy have agreed in principle to address the plume regionally under the MEW ROD. The Navy adopted the MEW ROD through a Federal Facilities Agreement amendment in December 1993.

The NASA area on Moffett Field has been subdivided into 12 specific geographic areas of investigation (AOIs), based on historic activities within each area. Six of these areas (AOIs 1, 2, 3, 6, 7 and 9) overlie portions of the regional VOC plume. NASA is not currently under an enforcement agreement with EPA to conduct cleanup; NASA has an agreement with the Navy to clean up soil and groundwater affected by NASA operations. Areas that are not within the boundaries of the regional plume are being investigated and cleaned up by NASA under voluntary cleanup agreements with the California Environmental Protection Agency, Department of Toxic Substances Control.

The ROD identifies the following chemicals of concern in groundwater: TCE; PCE, cis -1,2-dichloroethene (cis-1,2-DCE), trans-1,2-DCE; vinyl chloride, chloroform; 1,1-dichloroethane (1,1-DCA); 1,1-dichloroethene (1,1-DCE); 1,2-dichlorobenzene (1,2-DCB); 1,1,1-trichloroethane (1,1,1-TCA); and trichlorotrifluoroethane (Freon 113)..

Figures 2-4 and 2-5 show 2005-2006 TCE groundwater concentration contours at the Site in the "A/A1" aquifer.

2.4 Subsurface Remedial Measures Implemented by the MEW Companies

Starting as early as 1982, soil and groundwater remediation programs implemented by the MEW Companies have included soil excavation and treatment, installation of soil-bentonite cutoff walls, in-situ soil vapor extraction (SVE), in-situ chemical oxidation, and groundwater extraction and treatment. Remedial actions at the Site have reduced vadose zone soil concentrations to below ROD cleanup standards and have substantially reduced the groundwater concentrations of TCE and other VOCs. For example, average TCE concentrations in groundwater have been reduced by more than 75% (Locus, 2003b). Investigation and remediation efforts have been described in detail in numerous reports and are summarized primarily in the MEW RI report (HLA 1988), the Feasibility Study (Canonie 1988), the Two-Year Evaluation (Locus 2000, 2001) and Five Year Performance Review (Locus 2003b; EPA 2004).

Extraction wells operated by the Companies for the purpose of controlling chemical sources are referred to as Source Control Recovery Wells (SCRWs). SCRWs are installed and operated by the company responsible for the source area. The following subsections describe remedial actions undertaken by the MEW Companies for control and remediation of source areas. The locations of regional and source control recovery wells and groundwater treatment systems are shown on Figures 2-6 and 2-7. Figure 2-8 shows areas where soil cleanup activities (excavation and/or SVE) were performed.

2.4.1 Fairchild Semiconductor Corporation

Fairchild has installed a total of 15 extraction wells and currently operates three groundwater treatment systems to treat the extracted groundwater. The treatment systems currently use aqueous carbon.

515/545 Whisman Road and 313 Fairchild Drive

This area is located southeast of the intersection of Whisman Road and Fairchild Drive. A slurry wall was installed in 1986 around these former facilities to limit migration of chemicals. This slurry wall is approximately 40 feet deep and is keyed into the "A/B" aquitard.

Soils requiring remediation [greater than 0.5 and 1 milligram per kilogram TCE outside and inside slurry wall enclosures, respectively] above 6 feet were excavated and aerated. On 15 September 1995, EPA approved a work plan for additional subsurface investigations in the area. The objective of the investigation was to provide data to evaluate the use of soil excavation instead of SVE at locations where previously unsaturated soils had become saturated because of the rising water table. The investigation, area-redevelopment constraints and cost analysis revealed that soil excavation and aeration were more feasible than SVE. Subsequently, after EPA's approval of the excavation plans, vadose zone soils below 6 feet were also excavated and aerated.

To control and remediate and sources in the groundwater, Fairchild currently operates 12 SCRWs both inside and outside the slurry wall.

401 National Avenue

A slurry wall was installed in 1986 around this former facility and is keyed into the "A/B" aquitard at a depth of approximately 40 feet.

In the vadose zone, soils requiring remediation in the top 6 feet were excavated and aerated in 1995. The deeper soil (from 6 feet bgs to 18 inches above the groundwater table) was remediated using an SVE system. This system consisted of 29 air extraction/inlet wells and five air-inlet wells. The extracted air was treated using a vapor phase carbon adsorption system to remove the chemicals. The system was operated from February 1996 to June 1997. Soil samples collected after the system was shutdown confirmed that the soils have reached the cleanup standards [0.5 and 1 milligrams per kilogram (mg/kg), TCE inside and outside the slurry walls, respectively].

Groundwater recovery wells in this area include four SCRWs, which are operated within the Building 9 slurry wall enclosure. Three other SCRWs have also been installed north of this facility and are the joint responsibility of Vishay, SUMCO and Fairchild.

369 North Whisman Road

In 1986 Fairchild installed a slurry wall around the former Building 19 at this property. The wall is approximately 40 feet deep and is keyed into the "A/B" aquitard.

In November 1994, the upper six feet of soil requiring remediation were excavated and stockpiled. The excavated soil was then treated by aeration. In April 1995, the soil was backfilled after sufficient testing showed that the chemical concentrations were below Site cleanup standards.

For vadose soils requiring remediation more than 6 feet bgs, an SVE system was installed and operated. The extracted air was treated using a resin adsorption system and a vapor-phase granular activated carbon adsorption system. This system operated from April 1996 until February 1997, when soil chemical concentrations were observed to be below Site cleanup levels.

Within the slurry wall, Fairchild operates seven "A" aquifer SCRWs. Outside the slurry wall, Fairchild also operates two "A" aquifer SCRWs downgradient of the slurry wall. In the "B1" and "B2" aquifers Fairchild operates three and two SCRWs, respectively.

644 National Avenue

Shallow soils exceeding cleanup standards were found in one isolated spot northwest of this building. These soils were excavated to a depth of 13 feet and aerated. One SCRW is operated in the "A" aquifer northwest of the building.

2.4.2 Vishay GSI , Inc. and SUMCO USA Corporation

Vishay and SUMCO (Vishay/SUMCO) occupied the building at 405 National Avenue. In 2001, the 405 and 423 National Avenue properties were redeveloped. The redevelopment activities included demolition of existing buildings and construction of a new two-story commercial building, along with the associated parking, drainage and utility facilities. As part of that redevelopment, the 405 and 423 National Avenue properties were combined and are now collectively referred to as 425 National Avenue. As of December 2003, the property is owned by AIRCA, LLC of Saratoga, California and is currently vacant and for sale. The final remedy included both soil vapor extraction and groundwater extraction and treatment systems.

The SVE system included one vertical vapor extraction well on the south side of the former 405 National Avenue building and four inclined dual-purpose vapor and groundwater extraction wells on the property boundary between the 401 and former 405 National Avenue properties. Vapor extracted from these wells was piped to a vapor

treatment system at 401 National Avenue and treated using granular activated carbon beds. Treated vapor from the SVE system was discharged to the atmosphere under a Bay Area Air Quality Management District BAAQMD permit. Confirmation soil sampling was conducted in January 1999. Analytical results of the soil sampling indicated that VOC concentrations in all of the samples were below the cleanup objectives specified in the ROD for soils outside of slurry walls. Following approval by the EPA of the confirmation soil sampling report, the SVE system was permanently shut down on 22 March 1999 and later decommissioned.

The groundwater extraction and treatment system includes five SCRWs on the property and three downgradient SCRWs approximately 200 feet north of the property. Onsite groundwater is extracted using one vertical well on the south side of the former 405 National Avenue property (SIL15A) and four inclined dual-purpose vapor and groundwater extraction wells (EX-1 through EX-4). The four inclined wells used for the groundwater extraction and treatment system are the same four inclined wells that were formerly used for the SVE system. The three downgradient SCRWs (GSF-1A, GSF-1B1 and GSF-1B2) are located about 200 feet north of the property and are jointly operated by Vishay/SUMCO and Fairchild as part of the source control measures of both the 401 and 405 National Avenue sites. Recovered groundwater from the SCRWs is piped to a groundwater treatment system at 401 National Avenue.

The groundwater treatment system consists of pretreatment by an ultraviolet light-hydrogen peroxide oxidation unit followed by final treatment through a shallow tray air stripper. Until December 2004, treated groundwater was discharged to the sanitary sewer under a discharge permit from the City of Mountain View. As of 31 December 2004, the treatment system discharges to the storm drain under the general National Pollutant Discharge Elimination System (NPDES) permit for sites with groundwater impacted by VOCs. Operation of the groundwater extraction treatment system is ongoing.

2.4.3 Intel Corporation

Intel occupied the property at 365 East Middlefield Road (Lot 3) from 1968 to 1981. From 1968 to 1973, Intel shared use of Raytheon's acid neutralization vault on the adjoining vacant lot (Lot 4). Intel used its own acid waste neutralization system on Lot 3 from 1973 to 1980.

In 1981, Intel's acid waste neutralization system was removed and the waste-solvent tanks were professionally cleaned. Between September 1984 and September 1985 over 4,000 cubic yards of Lot 3 soil were excavated to a maximum depth of 35 feet bgs and treated. The concrete vault containing the former waste solvent tanks was also removed as part of this source removal action.

Initial groundwater remediation began on Lot 3 in 1982 with well I-1, which was completed across the "A" and "B1" aquifers. Well I-1 was destroyed in 1984 during the Lot 3 source removal action. To remove remaining VOC mass and hydraulically control the groundwater plume, four SCRWs were installed on Lot 3 in 1985, three in the "A" aquifer and one in the "B1" aquifer. Groundwater extracted from the SCRWs on Lot 3 is conveyed to two 2,000-lbs galvanized activated carbon (GAC) vessels for treatment. Intel shut down the most upgradient "A" aquifer SCRW in 1996 with permission from the EPA.

In 2005, Intel and Raytheon commenced a three-phase pilot study that involves injecting emulsified oils in areas of relatively high concentrations of VOCs on Lot 4 (Weiss 2005). As part of the pilot study, the Lot 3 SCRWs were shut down in August 2005 with permission from the EPA. Preliminary results from groundwater quality monitoring have shown that VOC concentrations near the injection area are decreasing (Weiss 2006).

2.4.4 Raytheon Company

Raytheon occupied the properties at 350 Ellis Street from 1961 to 1977 and 415 East Middlefield Road (also known as Lot 5) from 1968 to 1983, and operated an acid neutralization vault and chemical storage yard on the vacant lot adjoining 415 East Middlefield Road (known as Lot 4, currently 401 East Middlefield Road) from 1968 to 1980.

In 1987, Raytheon installed a 100-foot-deep slurry wall around its former 350 Ellis Street facility to isolate the chemicals at the property. The wall extends through the "A" and "B1" aquifer to the upper half of the "B2" aquifer.

An SVE system was also installed at the 350 Ellis Street property and in the area immediately north of the slurry wall. This system included 135 vapor extraction wells and a vapor treatment system consisting of two 8,000-pound vapor-phase GAC units.

Raytheon operates four "A" aquifer and one "B2" aquifer SCRWs within the slurry wall enclosure area. Outside of the slurry wall, Raytheon operates one SCRW in each of the "A" and "B" aquifers. Extracted groundwater is treated onsite using an ozone/peroxide oxidation system followed with aqueous carbon.

Remedial plans prepared by Raytheon for Lots 4 and 5 provided for installation of an SVE system to remediate vadose zone soils exceeding cleanup standards. Subsequently, Raytheon performed a feasibility study that showed that SVE was not feasible because of the rising water table in the area. Additionally, Raytheon installed a "B2" SCRW north of Middlefield Road and southwest of the Raytheon slurry wall for remediation of relatively high concentrations found in that area of the "B2" aquifer. Groundwater extracted from the Raytheon "B2" well is conveyed to the Raytheon treatment system located at the 350 Ellis Street property.

2.4.5 NEC Electronics, Inc.

NEC occupied facilities at the 501 Ellis Street property. In December 1991, NEC completed remediation of vadose zone soils exceeding cleanup standards at the property. Approximately 210 cubic yards were excavated and removed for treatment and disposal.

NEC operates three SCRWs in the "A" aquifer. Groundwater extracted from the wells is conveyed to a treatment system consisting of three 180-pound granular activated carbon vessels. The treated effluent is discharged to Stevens Creek.

2.4.6 SMI Holding LLC

An air sparging/SVE (AS/SVE) pilot study was conducted and a full-scale AS/SVE system was installed. The AS/SVE system operated until rising water levels forced closure of eight vertical SVE wells and shutdown of the AS system. The SVE system continued to operate with the horizontal well and extracted vapors were treated by GAC. Closure of the SVE system was approved in 2001 following confirmatory soil sampling to verify that soil cleanup goals were achieved.

Four SCRWs are operated by SMI in the "A" aquifer. The "B1" aquifer is not impacted above cleanup standards at the former SMI property, but there are "B2" aquifer impacts above the cleanup standards located on the northeastern (upgradient) side that do not appear to be associated with the "A" aquifer impacts at the SMI property. Extracted groundwater is treated through two 1000-pound GAC vessels in series. A chemical oxidation pilot test using potassium permanganate to reduce groundwater VOC concentrations was conducted in the SMI area in

November and December 2000, with the highest volume of potassium permanganate solution injected near the well with the highest VOC concentrations. The TCE concentration in the area treated most extensively was reduced from pre-injection concentrations. In September 2002, SMI submitted a work plan to EPA to implement additional source area chemical oxidation, but EPA never approved the work plan. Between January and April 2003, SMI conducted an enhanced reductive dechlorination (ERD) laboratory microcosm study. Because results were favorable, a work plan to implement ERD was submitted to EPA (PES 2004c). EPA provided comments on the work plan; however, responses to EPA's comments and the implementation of the work plan have been postponed due to access constraints.

2.5 Regional Groundwater Remediation Program

The treatment system for the regional groundwater remediation program was designed to remove chemicals that had already migrated beyond the SCRWs and where the responsibility for the bulk of the chemicals present cannot be attributed to specific source areas. Thus, they are located downgradient of identified source areas and SCRWs. Groundwater extraction wells that operate as part of the RGRP are labeled Regional Recovery Wells (RRWs).

2.5.1 South of U.S. Highway 101

In the "A", "B1", "B2" and "B3" aquifers the regional program operates five, six, four and one RRWs, respectively. In addition, four deep aquifer RRWs currently operate to remediate the groundwater below the "B/C" aquitard.

Extracted groundwater is treated by an RGRP treatment system located at the 644 National Avenue property. The system consists of three 10,000-lb GAC vessels operated in series. The treated water is discharged into the local storm drain under an NPDES permit. In addition to the regional treatment system, groundwater from some RRWs is conveyed to Fairchild treatment systems.

2.5.2 North of U.S. Highway 101

The regional groundwater recovery system north of U.S. Highway 101 consists of 15 RRWs (eight "A/A1" aquifer wells and seven "B1/A2" aquifer wells). Extracted groundwater from RRWs is conveyed through a network of double-contained pipes and treated by the groundwater treatment system located on the north side of Wescoat Road and east of McCord.

The treatment system consists of two low-profile air strippers that operate in series. The extracted groundwater is treated by the lead air stripper and is further treated by the lag air stripper. Two 4,000-lb vapor phase GAC units treat the off-gas from the first air stripper.

2.6 Remedial Programs Implemented by the U.S. Navy

Several Navy potential source areas have been inferred from available groundwater concentrations (Figure 4-91) and the Navy site use history. These potential sources have been discussed in previous documents (HLA 1993, 1995). They include the following:

- The Craft Hobby Shop Area
- Building 48

- The South Gate Area
- The Auto Hobby Shop
- The Buildings 17/19 Area
- The Building 88 Area

With the exception of a recent investigation in the former Building 88 Area, which in recent investigations and presentations to EPA and the public the Navy confirmed to be a source, the Navy has not collected soil and groundwater data to evaluate the absence or presence of sources in these areas.

During the demolition of Building 88 and associated removal of an underground storage tank (UST) and a sump, approximately 400 cubic yards of soil were excavated and aerated at the Navy's Moffett Field groundwater treatment pad. Clean fill material was brought in to replace the excavated material. Confirmation soil samples indicated that chemical concentrations were below the levels established in the ROD (PRC 1995). Petroleum hydrocarbon remedial actions were conducted during tank and soil removals at Building 29, Building 31 and Hangar 1.

The Navy operates a groundwater extraction and treatment system located southwest of Hangar 1. The system consists of six extraction wells completed in the A aquifer and three extraction wells completed in the B1 aquifer, as well as sumps, that pump groundwater from a tunnel beneath Hangar 1 and from an electrical vault on the east side of Hangar 1. The treatment system consists of an advanced oxidation process, followed by four liquid-phase GAC units in series. After EPA approved the design in June 1997, construction and performance testing took place between July 1997 and November 1998. The system began operating on 26 November 1998. Functional testing was completed in April 1999. Since beginning operation in November 1998, more than 2,500 pounds of VOCs have been removed from the groundwater.

2.7 Remedial Programs Implemented by NASA

The NASA groundwater extraction and treatment system was constructed in 2001 and began operating on 10 September 2001. Groundwater is extracted from four source control extraction wells. NASA's average flow rate is approximately 15 gallons per minute. Extracted groundwater is pre-filtered by two 10-micron bag filters operating in parallel, prior to passing through two 5,000-pound GAC vessels operating in series. Treated groundwater is then discharged to Stevens Creek in accordance with an NPDES permit. Since the start of operations in September 2001, NASA's groundwater extraction and treatment system has removed and treated an estimated 15 pounds of VOCs.

The NASA area on Moffett Field has been subdivided into 12 specific AOIs, six of which (AOIs 1, 2, 3, 6, 7 and 9) overlie portions of the regional VOC plume.

AOI 1: In 1996, fuel-impacted soil was identified at the former jet fuel depot in AOI 1. A total of 3,100 cubic yards of soil were excavated, 2,100 cubic yards of soil were aerated onsite and 1,000 cubic yards were disposed off-site. In 1999, a follow-up investigation was conducted that indicated no TCE above the soil cleanup level.

AOI 2: Four USTs were removed in 1989 and 1990 from AOI 2. Soil was found to be impacted with volatile aromatics and total petroleum hydrocarbons (TPH). Further sampling of excavated soil did not indicate the presence of chemicals above the cleanup levels.

AOI 3: In the fall of 1994 and summer of 1995, two groups of leaking USTs were removed from the north side of the aircraft ramp. Approximately 7,400 cubic yards of soil impacted with VOCs and TPH were excavated; 5,800 cubic yards of soil were transported off-site and the remaining 1,600 cubic yards of soil were aerated onsite.

AOI 6: AOI 6 is a storm drain channel located in the northern portion of the NASA Ames Research Center. AOI 6 was known as the Lindbergh Ditch. The ditch served to carry storm water from the west side of former Moffett Field as well as from the Ames Research Center. The ditch was constructed in 1932. NASA excavated and removed soil containing PCBs as part of its agreement with the Navy. In 1995, 1,640 cubic yards of soil contaminated with metals, oil and grease, and polychlorinated biphenyls were excavated and disposed off-site. In October 2001, an additional 231 cubic yards of soil were excavated and disposed off-site.

AOI 7: AOI 7 is located at the northeast end of the Ames Research Center. In 1994, 3,000 cubic yards of soil containing TCE were excavated and disposed off-site.

AOI 9: There are no known tanks located in AOI 9.

2.8 Other Remedial Programs

Two extraction wells were installed as part of the Silva Well Program to address low concentrations of chemicals in the "B1" and "C" aquifers observed in the residential area west of Whisman Road and were operated until September 2001. While in operation, the extracted groundwater was discharged directly to the sanitary sewer under a permit from the City of Mountain View.

Other remedial programs near the Site include the Hewlett-Packard site east of Ellis Street and the GTE Government Systems site south of Middlefield Road.

2.9 Site Redevelopment

Since the Site investigations were initiated, many changes have occurred in the Site's land use. Many of the industrial facilities that were once occupied by the MEW Companies have been demolished; the land has been sold to new owners and new office building complexes have been constructed. Most of the new construction has taken place since 1990. As part of the development process, several developers designed and constructed building foundations, base slabs and heating, ventilation and air conditioning (HVAC) systems to minimize vapor migration potential. In addition, separate indoor air risk assessments were performed to quantify the potential risk to building occupants of the groundwater-to-indoor air pathway at the 350 Ellis Street (HLA 1999) and 369 N. Whisman Road, 464 Ellis Street and 313 Fairchild Drive properties (Locus 1997; Smith Technology Corporation 1997).

The majority of the newer buildings were designed with modern HVAC systems (e.g., 369-399 N. Whisman Road, 313 and 323 Fairchild Drive, 515 and 545 N. Whisman Road, 464-468 Ellis Street, 350-380 Ellis Street); some were designed with vapor barriers below the foundation slab to prevent potential VOC vapors from entering the buildings (e.g., 350-380 Ellis Street, 425 National Avenue). Some of the remaining older facilities in the MEW Area have been extensively remodeled to accommodate offices and their HVAC systems have also been modified or replaced during remodeling (e.g., 455 and 487 E. Middlefield Road). Figure 2-2 shows the most recent building layout in the MEW Area and identifies each facility-specific property.

Other development at the Site includes a commercial condominium – The Vineyards – on 425-495 N. Whisman Road, the Wescoat Housing development on Moffett Field, and the Classic Communities residential development on Evandale Avenue, west of Whisman Road.

3 CONCEPTUAL MODEL FOR VAPOR INTRUSION

This chapter presents a conceptual model for one exposure pathway, vapor intrusion. Other pathways have been addressed in the Endangerment Assessment report (ICF Clement 1988) and are also being evaluated as part of the Site-wide Groundwater Feasibility Study.

Potential exposure pathways at the Site include i) direct exposure to impacted soil during earthmoving (dermal contact, ingestion, or inhalation of impacted particulates), ii) direct exposure to impacted groundwater during earth-moving (dermal contact, ingestion, or inhalation of volatilized VOCs) or through its use as domestic supply (ingestion, dermal contact, or inhalation of volatilized VOCs), iii) discharge of impacted groundwater to surface water, iv) and VOC vapor intrusion into structures overlying impacted soil or groundwater. Of these, the only currently complete pathway is subsurface vapor intrusion into indoor air. Other pathways are currently incomplete, but could potentially become complete in the future if Site conditions change.

A Site conceptual model identifies sources, chemicals of concern, potential exposure pathways and receptors. The Site-specific conceptual model comprises both figures and written descriptions that illustrate the current understanding of potential sources of VOCs to the indoors and how the VOCs may be transported from the point of release to the point where people can breathe them. The Site conceptual model incorporates findings from the air-sampling investigations requested by EPA on 3 October 2002.

3.1 Sources of VOCs

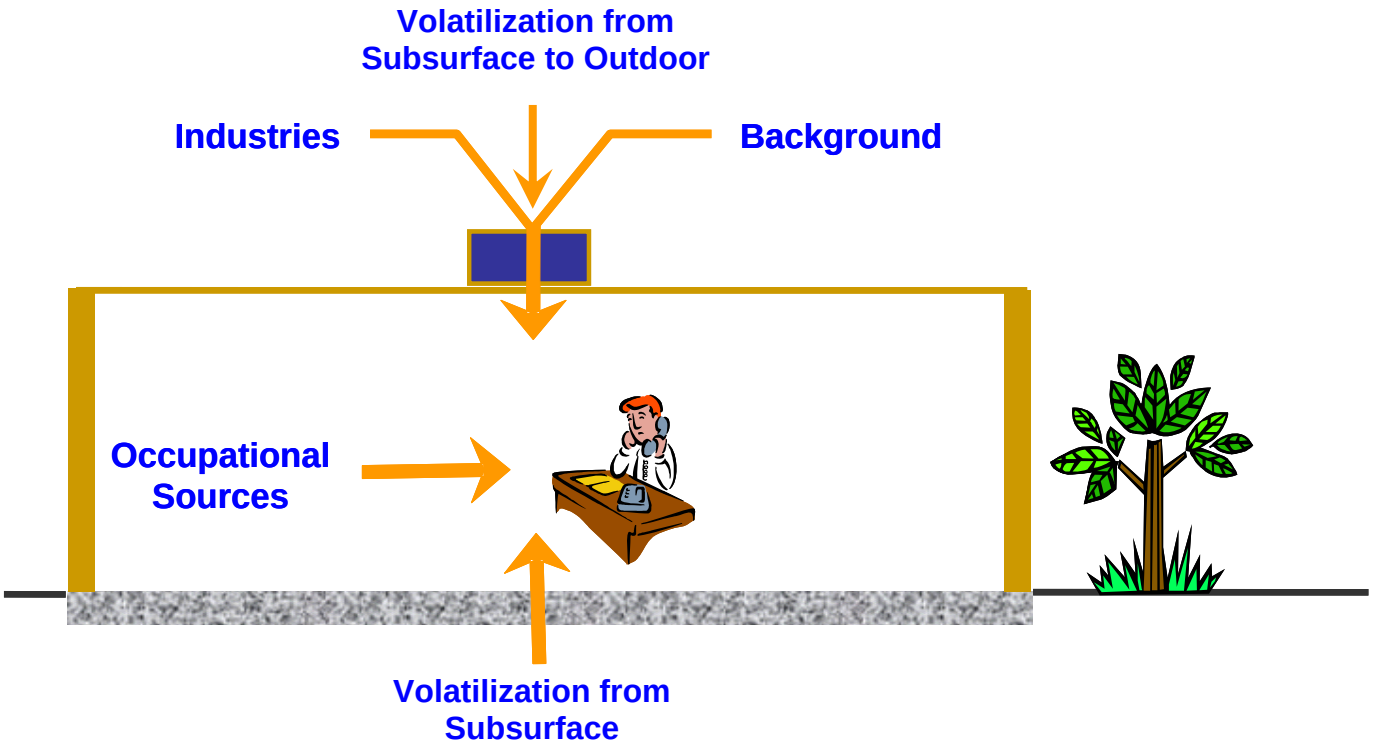
For a worker or resident at the Site, potential inhalation exposure may have a number of sources. For indoor exposure, sources could be one or a combination of the following:

1. Volatilization from subsurface (soil and/or groundwater) into the building structure,

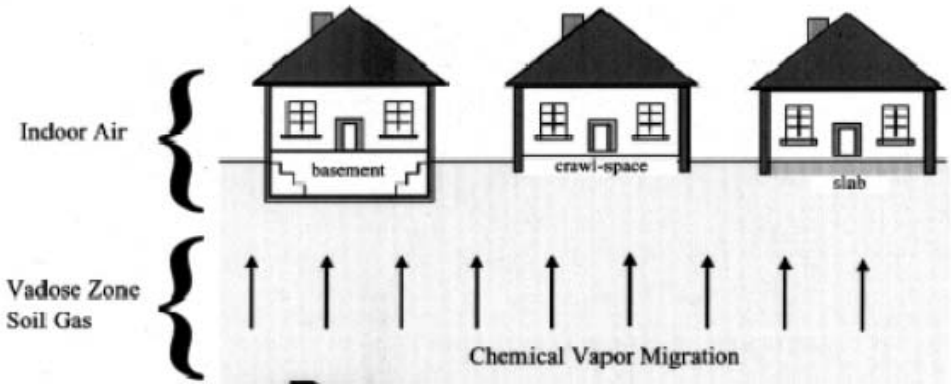
2. Occupational or consumer product sources in an office or house (background indoor air),

3. Contribution from outdoor ambient air moving into the building through opened doors or windows, or through HVAC systems. This outdoor ambient air can include contributions from offsite background concentrations, nearby industrial emissions (e.g., drycleaners), and volatilization from the subsurface to outdoor ambient air near the building.

Volatilization from Subsurface into a Building: Volatile chemicals may migrate upward through the soil pore space, cracks in the floors, dry utility conduits, or porous subsurface structures such as basements, and enter buildings in the vapor phase. These vapors may be present in the subsurface as a result of volatilization from groundwater or soils, where the chemicals may partition into the vapor phase and then move by advection or diffusion through open pores in the soil.



Another pathway for buildings with subsurface structures, such as basements or utility vaults, is groundwater intrusion into these subsurface structures and volatilization from the groundwater directly into the air in the structure. Vapors from this subsurface structure could then potentially migrate into other areas within the building.



Some homes or commercial buildings may be constructed on slab-on-grade foundations or with crawlspaces. Some residences may have earthen cellars or basements. Vapors could potentially migrate from the subsurface into the crawlspace. If the crawlspace is not sufficiently ventilated, vapors may then migrate indoors. For homes with a basement or earthen cellar, if these subsurface structures are not sufficiently ventilated, vapors may eventually migrate into other areas of the home.

Occupational or Consumer Product Sources (Background Indoor Air): Concentrations of volatile chemicals in indoor air could be affected by the use of consumer products and personal habits. For example, VOCs in cleaning agents, room deodorizers, dry-cleaned clothing, cigarette smoke and vehicle exhaust can all affect indoor air quality. Certain adhesives, spot removers, paint removers, scented candles and automobile cleaning and degreasing products can also be a potential source of

TCE found in indoor air. TCE is still commercially available and investigations at the Site revealed that TCE in some buildings was attributed to these kinds of consumer product sources within the building.

Offsite Background Sources: TCE and other volatile chemicals can still be found in commercial and consumer products that are used in industry or homes. Emissions from these consumer products (e.g., degreasers, dry cleaners, etc.) contribute VOCs to the indoor and outdoor ambient air. The BAAQMD operates approximately 20 air monitoring stations in the Bay Area. The BAAQMD collects air samples from these stations approximately every 12 days and analyzes them for VOCs and other airborne chemicals. Previously, the closest monitoring station to the Site was the BAAQMD monitoring station located at 160 Cuesta Drive, approximately 2 miles from the Site. The BAAQMD stopped collecting samples from this monitoring station in 2000. While in operation, ambient air sampling was conducted at this station approximately every twelve days. The BAAQMD also installed a monitoring station in Whisman Park in Mountain View and collected samples from the station in 2004 and 2005 every 12 days. Additionally, as part of the MEW air sampling program, a total of 163 background air samples were collected from a number of locations around the Site at the same time that indoor and outdoor ambient air samples were collected at buildings over the MEW plume. In addition, NASA collected and analyzed 79 samples at a background location on Moffett Field. A discussion of background concentrations is presented in Chapter 4 and indicates that TCE and other chemicals are commonly detected at these background locations.

Emissions from Industries: These industries may include dry cleaners, car service stations and others that use VOCs in their operations. Air emissions from these sources may be reflected primarily in the outdoor ambient air samples collected by the MEW Companies, the Navy and NASA to evaluate vapor migration into buildings. The results of these outdoor samples have been included in several reports (Locus 2004a,b&c; Weiss 2004; PES 2004a&b; Geomatrix 2003, 2004; GeoSyntec 2003b, 2004a&b, 2005; Navy 2004a&b; NASA 2005a&b).

Volatilization from the Subsurface to Outdoor Ambient Air: Volatile chemicals may migrate upward through the soil pore space and cracks in surface covers (pavements, concrete pads) into the outdoor ambient air. Once in the air, VOCs may migrate by diffusion, advection (with the wind), and also may breakdown as a result of reaction with ultraviolet rays. A multiple-line-of-evidence study at the Site (Appendix D) using results of air samples collected and site-specific parameters indicate that outdoor air quality over the MEW plume is similar to background outdoor air quality. Estimates of volatilization from the subsurface to the outdoor air indicate that concentrations in outdoor air from the subsurface are significantly lower than the interim action level, and that the small contribution does not result in outdoor air concentrations above background.

3.2 Chemicals of Concern

Air samples were analyzed for chemicals of concern as defined in the ROD if they were detected in the groundwater. Based on the results of groundwater and air sampling conducted to date in the MEW Area, the potential COCs for the vapor intrusion pathway are TCE; PCE, cis-1,2-DCE; trans-1,2-DCE; vinyl chloride; chloroform, 1,1-DCA; 1,1-DCE, 1,1,1-TCA; 1,2-DCB; and Freon 113. Analyses of air samples were limited to those chemicals detected in the groundwater at each former MEW facility.

On Moffett Field, NASA analyzed for 22 chemicals, including those listed above (with the exception of chloroform and Freon 113). This RI report discusses only the MEW chemicals of concern. For discussion of the other chemicals analyzed by NASA, the reader is referred to NASA's reports (NASA 2005a&b).

3.3 Pathways

Inhalation: Volatile chemicals may volatilize from the groundwater or from soils, migrate upward through voids and cracks in the floors, dry conduits, or subsurface structures (e.g., basements and other subsurface structures) and enter buildings. For buildings with basements, groundwater may intrude onto the basement floor where VOCs may volatilize directly from the groundwater collected on the basement floor into to the indoor air. Potential receptors in the buildings could inhale these vapors.

Other Pathways: EPA prepared an endangerment assessment (EA) (ICF-Clement, 1988) to evaluate hazards to human health or the environment at the Site. The EA concluded that there is no imminent or substantial endangerment associated with direct contact with surface soils. The EA identified the only potentially significant exposure pathway as consumption of groundwater containing chemicals; however, there were and are no water supply wells at the Site. The pathways evaluated by the 1988 EA are not discussed further in this document.

3.4 Receptors

Potential receptors are persons in current and future residences and commercial buildings over the shallow groundwater plume at the Site. The area over the estimated 5 µg/L TCE concentration in the shallow groundwater plume plus 100 feet buffer zone is referred to in this Supplemental RI as the Vapor Intrusion Study Area (Figure 3-1).

4 AIR INVESTIGATIONS RELATED TO VAPOR INTRUSION

On 3 October 2002, the EPA requested a work plan "to conduct a human health risk assessment to evaluate the groundwater-to-indoor air exposure pathway by collecting indoor air, outdoor ambient air and soil gas samples at each Facility." In response, the MEW Companies submitted a unified work plan on 16 April 2003 (Locus 2003a). NEC submitted its own work plan (GeoSyntec 2003a), which was similar to the unified work plan. NASA initiated a vapor intrusion study in accordance with its own work plan (MACTEC 2003a) and addenda (MACTEC 2003b, 2004). The Navy also submitted a work plan for its air study (Navy 2003b). Results were submitted to EPA in several reports (Locus 2004a,b&c; Weiss 2004; PES 2004a&b; Geomatrix 2003, 2004; GeoSyntec 2003b, 2004a&b, 2005; Navy 2004a&b; NASA 2005a&b).

This RI report compiles the results from all these reports in one document, provides a comprehensive discussion of the interim mitigation measures implemented to date, and discusses findings from the large dataset accumulated during this RI process.

4.1 Sampling Methodology

Indoor air concentrations can be attributed to facility or occupational sources (e.g., sources attributed to building construction, operation and occupancy), volatilization from the subsurface into the building and contributions from outdoor ambient air. This section explains the types of samples collected and the sampling procedures.

4.1.1 Types of Samples

The following types of air samples were collected at the Site:

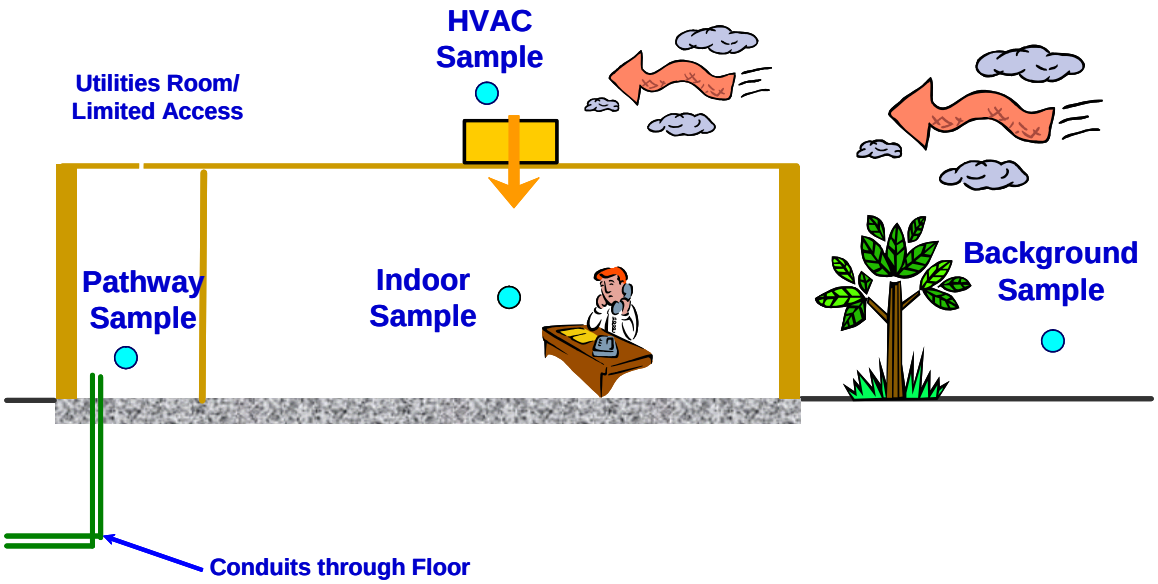
Indoor Samples were collected in occupied or potentially occupied areas at breathing zone height (between 3.5 and 5 feet). The results were used to estimate potential occupant exposure to VOCs.

Pathway Samples were collected in areas where potential direct conduits were observed that might provide a direct route for VOC vapor migration into the building to evaluate whether localized mitigation would be warranted. Examples of these potential conduits are utilities, cracks in the floor, or open sumps. Results of samples in these areas represent localized preferential pathways and are not representative of exposure point concentrations to occupants.

Outdoor Ambient Air Samples were collected outside buildings (e.g., at HVAC unit inlets). The results from these samples can be compared to those from indoor samples to evaluate the potential contribution of VOCs from outside air to indoor ambient air.

Background Outdoor Samples were collected outdoors at a distance of 0.25 to 1.5 miles away from the plume to assess background levels of VOCs.

Quality Assurance Samples, including field duplicates, field blanks and laboratory control samples were analyzed to maintain an acceptable level of quality assurance. In addition, EPA collected co-located samples at certain locations to verify results of samples collected by the MEW Companies and NASA. NASA collected split samples at some locations and analyzed them using two different labs.



4.1.2 Sampling Procedures

To date, approximately 2,800 air samples have been collected at the Site from 31 residences and 47 commercial buildings. Sampling locations were finalized on pre-sampling walkthroughs with EPA.

South of U.S. Highway 101, samples were collected from 25 commercial buildings in the spring and fall of 2003. Two rounds were collected from each building in each season separated by a one-week period. The air samples were analyzed by accredited laboratories using EPA Method TO-15 selective ion mode (SIM) for up to a total of 11 chemicals, depending on those detected in the groundwater at each facility. The chemical analyte list included TCE; PCE; cis-1, 2-DCE; trans-1, 2-DCE; vinyl chloride; chloroform; 1,1-DCE; 1,1-DCA; 1,1,1-TCA; 1,2-DCB, and Freon 113. Before sampling started, the laboratory cleaned and certified each canister, with its corresponding flow controller and filter, to SIM-level reporting limits for the chemicals listed above. Air samples were collected over a period typical of worker exposure. Some background samples were collected over a 10-hour period, with others over 12-hour or 24-hour periods. Five additional commercial buildings on properties not previously occupied by the MEW Companies were sampled in 2004; one more was sampled in 2006.

Starting in June 2003, NASA began an extensive air sampling program in which samples were collected from six buildings (15, 16, 17, 20, N210 and N243) on Moffett Field and from outdoor ambient air and background outdoor locations. A combination of 24-hour and 8-hour samples was collected. Subsequently, NASA collected samples from three additional buildings (N11, N239A and N259). NASA collected more than 1,400 samples during this investigation.

The Navy and EPA sampled three residences in the Wescoat Housing area on Moffett Field in 2003 and 2004. In 2006, samples were collected from a total of 14 residences in the Vapor Intrusion Study Area after the Wescoat Housing Area was redeveloped.

4.2 Basis of Evaluation of Air Sampling Results

There are no promulgated cleanup standards for VOCs in the air. However, there are several guidance values that can be used to assist risk assessors and others in initial screening-level evaluations of environmental measurements, these include:

1. Outdoor ambient air concentrations and background outdoor concentrations
2. Short-term screening levels
3. Long-term indoor air preliminary remedial goals

Indoor air results are presented and compared to these values.

4.2.1 Background Outdoor Air Concentrations

As shown in the conceptual model discussed in Section 3.1, VOCs in indoor air can originate from a number of potential sources. In order to individually quantify the effects of these sources, their individual effects can be isolated as much as permitted by the data collected. For example, background outdoor samples that were collected at the Site can be used to isolate the contribution of background outdoor concentrations to indoor air. A separate comparison of indoor air to outdoor ambient air (i.e., near buildings) is included in Section 4.3 and Table 4-18. The analysis in this section estimates representative background concentrations.

In California, chloroform, PCE, TCE, vinyl chloride and 1,1,1-TCA are routinely monitored in ambient air at stations maintained by both the BAAQMD and the California Air Resources Board (CARB). The closest monitoring station to the Site was the BAAQMD monitoring station located in Mountain View on 160 Cuesta Drive, approximately 2 miles southwest from the Site. While in operation, ambient air sampling was conducted at this station approximately every 12 days. Because this station was not sampled during the same time frame as the onsite samples for this investigation, these results are not included in the data population for this analysis. However, an examination of the summary statistics for this BAAQMD sampling station in the most recent three years of sampling (1997 to January 2000) reveals the following:

- Chloroform ranged from undetected to a maximum concentration of 0.89 $\mu g/m^3$. Chloroform was detected in 13 of 89 samples.
- PCE concentrations ranged between 0.07 and 4.7 $\mu g/m^3$. PCE was detected in all samples analyzed.
- 1,1,1-TCA ranged between non-detect levels to a maximum of 6.5 $\mu g/m^3$ and was detected in all but one of the 89 samples analyzed.
- TCE ranged from non-detect levels to a maximum concentration of 7.4 $\mu g/m^3$. It was detected in 12 of 89 samples.
- Vinyl chloride was not detected in the 89 samples collected between 1997 and 2000.

BAAQMD also installed a temporary monitoring station at Whisman Park and collected periodic samples from this station in 2004 and 2005. These results are included in Appendix B and were used in the estimation of background outdoor air concentrations.

During the remedial investigation work, air samples were collected at a number of EPA-specified locations surrounding the Site. These are referred to as "reference" samples (Figure 4-1). In addition, background samples taken 1 to 1.5 miles away from the Site (Figure 4-2) were also collected. Reference and background samples were collected to coincide with the sampling events conducted at the Site.

After compiling the data, the following methodology was employed to arrive at representative background concentrations. Results of the background and reference samples are included in Appendix B. Calculation tables and plots supporting calculation of representative background levels are provided in Appendix C.

1. Because some of the sample locations included in this analysis were sampled more frequently than others, representative "daily average" concentrations were obtained by averaging all of the concentrations sampled on each date. The daily averaging allows for evaluation of day-to-day variability in the data set. Duplicate samples were not used in these calculations. Non-detects were included at ½ the detection limit.

2. The daily average concentrations were tested for adherence to normal, lognormal, and gamma distributions using several test statistics as well as qualitative review of probability plots. The following calculations are based on the most appropriate statistical distribution as determined by these tests. Since the concentration data did not meet any of the three statistical distributions with 95% confidence, non-parametric methods were used to derive representative values.

3. An upper tolerance limit (UTL) was calculated for the daily average concentrations. EPA guidance recommends use of a UTL at the 95th percentile with 95% confidence (USEPA, 1992; USEPA, 2007). This represents the value below which 95% of the background daily average concentrations will fall with 95% confidence. Site concentrations below this are considered within the range of background. The UTL was calculated for each chemical and used as the representative background concentration for comparison to observed concentrations at the Site.

Specific review of the TCE concentrations measured at background location B258 identifies three days in the fall of 2003 when concentrations were higher than most other days. Review of TCE measured at other locations during this same time period shows that the B258 concentrations are not out of range. Plots show that the B258 measurements are consistent with concentrations measured at other locations (Appendix C). Based on this review and comparison between locations where concentrations were measured, there is no justifiable reason to exclude the B258 location from the background dataset. Specific review of the TCE concentrations measured at B258 identifies three days in the fall of 2003 when concentrations were higher than most other days.

Background calculations were performed using the new ProUCL software and for two scenarios: 1) Scenario 1 includes the entire dataset from B2582, and 2) Scenario 2 excludes from B258 the date range in which TCE was elevated (between14 September 2003 and January 21 2004).

The results of the background concentrations for the Site are shown in Tables 4-1A and B. Detailed calculations are shown in Appendix C.

Table 4-1A: Summary of Background Concentrations – Scenario 1: Using Dataset from B258

Chemical	Number of Samples	Number of Sampled Days	Min. (µg/m^3)	Max. (µg/m^3)	Arithmetic Mean (µg/m^3)	95th Percentile (µg/m^3)	95% Upper Confidence Limit on the 95th Percentile (Representative Background) (µg/m^3)
Chloroform	183	77	ND 0.08	2.0	0.14	0.42	0.56
1,1-DCA	201	91	ND 0.042	2.2	0.076	0.23	0.28
PCE	289	163	ND 0.068	6.6	0.24	0.75	0.97
TCE	289	163	ND 0.043	9.9	0.39	1.8	2.5
Vinyl Chloride	289	163	ND 0.013	2.7	0.15	0.30	0.38
1,2-DCB	201	91	ND 0.063	7.5	0.14	0.23	0.31
1,1-DCE	215	93	ND 0.026	0.16	0.031	0.038	0.043
Cis-1,2-DCE	239	117	ND 0.026	0.68	0.052	0.084	0.10
Trans-1,2-DCE	176	87	ND 0.056	0.02	0.084	0.02	0.02
Freon 113	183	77	ND 0.25	62	0.59	0.62	0.69
1,1,1-TCA	251	140	ND 0.13	22	0.20	0.33	0.69

Table 4-1B: Summary of Background Concentrations – Scenario 2: Excluding Data Collected between 9/14/2003 and 1/21/2004 at B258

Chemical	Number of Samples	Number of Sampled Days	Min. (µg/m^3)	Max. (µg/m^3)	Arithmetic Mean (µg/m^3)	95th Percentile (µg/m^3)	95% Upper Confidence Limit on the 95th Percentile (Representative Background) (µg/m^3)
Chloroform	183	77	ND 0.08	2.0	0.14	0.42	0.56
1,1-DCA	190	81	ND 0.042	2.2	0.081	0.25	0.28
PCE	278	153	ND 0.068	6.6	0.24	0.75	0.97
TCE	278	153	ND 0.043	9.9	0.21	0.57	0.61
Vinyl Chloride	278	153	ND 0.013	2.7	0.16	0.32	0.38
1,2-DCB	190	81	ND 0.063	7.5	0.14	0.22	0.29

Table 4-1B: Summary of Background Concentrations – Scenario 2: Excluding Data Collected between 9/14/2003 and 1/21/2004 at B258

Chemical	Number of Samples	Number of Sampled Days	Min. (µg/m^3)	Max. (µg/m^3)	Arithmetic Mean (µg/m^3)	95th Percentile (µg/m^3)	95% Upper Confidence Limit on the 95th Percentile (Representative Background) (µg/m^3)
1,1-DCE	204	83	ND 0.026	0.16	0.032	0.037	0.042
Cis-1,2-DCE	228	107	ND 0.026	0.68	0.054	0.090	0.11
Trans-1,2-DCE	165	77	ND 0.056	0.02	0.095	0.021	0.024
Freon 113	183	77	ND 0.25	62	0.59	0.62	0.69
1,1,1-TCA	240	130	ND 0.13	22	0.20	0.34	0.69

The summary table shows that some chemicals are frequently detected in the outside air. These include chloroform, PCE, TCE, Freon 113 and 1,1,1-TCA. Several background outdoor samples (11 out of 278 samples) showed TCE concentrations above the interim action level of 1 µg/m^3 for a residential scenario.

Consideration of potential risks related to exposure to background concentrations of chemicals in ambient air provides perspective on the relative significance of the indoor air concentrations under consideration. For example, Cal/EPA indicates that the cancer risk from breathing current levels of pollutants in California's ambient air over a 70-year lifetime is estimated to be 7.5 x 10^{-4} http://www.oehha.ca.gov/pdf/HRSguide2001.pdf.

4.2.2 Short-Term Exposure Goals

The Agency for Toxic Substances and Disease Registry (ATSDR) developed acute (14-day) and intermediate (15-365 day) minimal risk levels (MRLs) applicable to short or moderate exposure periods. An acute and intermediate MRL is an estimate of the daily human exposure to a chemical that is likely to be without appreciable risk of adverse noncancer health effects over a specified short-term duration of exposure. These substance specific estimates, which are intended to serve as screening levels, are used by ATSDR health assessors and other responders to identify contaminants and potential health effects that may be of

Table 4-2: Short-Term Exposure Goals

Chemical	Short-Term Exposure Goals (µg/m^3)	
	Acute	Intermediate
Chloroform	488	244
1,1-DCA	Not Available	Not Available
PCE	1,356	Not Available
TCE	10,740	537
Vinyl Chloride	1,280	77
1,2-DCB	Not Available	Not Available
1,1-DCE	Not Available	79.4
Cis-1,2-DCE	Not Available	Not Available
Trans-1,2-DCE	794	794
Freon 113	Not Available	Not Available
1,1,1-TCA	1,092	3,822

concern at sites. MRLs are not intended to define cleanup or action levels for ATSDR or other Agencies. Measured concentrations in the air can be compared to MRLs to assess short-term risks. Table 4-2 lists the available MRLs for the MEW Site chemicals of concern.

4.2.3 Long-Term Exposure Goals

The long-term exposure goals used for the RI were based on EPA Region 9's former published ambient air preliminary remedial goals (PRGs) for certain VOCs, which have since been replaced by a harmonized set of Regional Risk Screening Levels (RSLs) published by three EPA Regions. The RSLs were used to revise the long-term exposure goals for the final FS; however, because the sampling results from the RI were compared to the long-term exposure goals based on the PRGs, this report retains those former values.

The ambient indoor air PRG was applicable to both indoors and outdoors and was based on a long-term residential exposure scenario - commercial indoor air PRGS were not presented. PRGS were risk-based tools and were not promulgated or established cleanup standards. The PRGs provided by Region IX were generic in that they were calculated without site-specific information.

For purposes of the RI, the commercial goals were obtained by multiplying the residential goals with a factor of 2.8 for carcinogenic chemicals, and by a factor of 1.9 for non-carcinogenic chemicals to adjust for the shorter exposure frequency and duration of 250 days for 25 years and a breathing rate of 15 m^3/day for workers. For carcinogenic chemicals, the 2.8 factor also included adjusting the adult/child resident to adult worker. Using this methodology, the long-term exposure goals based on risk ranges shown in Table 4-3 were be derived. Long-term goals may not be appropriate for comparison to air sampling results collected from unoccupied areas such as utility rooms or other infrequently used areas in that the assumption of continuous exposure (i.e., 9.5 hours per day, 250 days per year for 25 years) may not be appropriate.

Table 4-3: Long-Term Exposure Goals

Chemical	**Long-Term Exposure Goal (µg/m^3)**		**Comments**
	Residential	**Commercial**	
Chloroform	0.083 – 8.3	0.23 – 23	Representing 10^{-6} -10^{-4} risk range
CAL – Modified	0.35 – 35	*0.98 – 98*	*Representing 10^{-6} -10^{-4} risk range*
1,1-DCA	520	988	Representing a hazard quotient (HQ) of 1
CAL – Modified	1.2 - 120	3.4 – 340	*Representing 10^{-6} -10^{-4} risk range*
PCE	0.32 - 32	0.90 – 90	Representing 10^{-6} -10^{-4} risk range
TCE	1.0	2.7	Interim action level representing 10^{-6} risk through application of the Cal/EPA CSF (cancer slope factor) and a 10^{-4} risk through application of an upper-end EPA CSF

Vinyl Chloride	0.11 - 11	1.2 – 120	Representing 10^{-6} -10^{-4} risk range. EPA uses a larger conversion factor from residential to commercial for vinyl chloride because the residential value takes into account child exposure and higher sensitivity earlier in life.
1,2-DCB	210	400	Representing a HQ of 1
1,1-DCE	210	400	Representing a HQ of 1
Cis-1,2-DCE	37	70	Representing a HQ of 1
Trans-1,2-DCE	73	139	Representing a HQ of 1
Freon 113	31,000	58,900	Representing a HQ of 1
1,1,1-TCA	2,300	4,370	Representing a HQ of 1

4.2.3.1. TCE Interim Action Level

For this RI, EPA used an interim action level for TCE of 1 and 2.7 µg/m^3 for residential and commercial occupancy, respectively, which EPA Region IX derived considering both the range of draft carcinogenic slope factors (CSF) provided by the EPA (2001) of 0.02 to 0.4 (mg/kg-day)$^{-1}$ and the current California EPA CSF of 0.007 (mg/kg-day)$^{-1}$ for long-term exposure to TCE. The interim action level for TCE in air was a risk-based concentration and was derived to be protective of the carcinogenic risks associated with long-term exposure to TCE in residential or workplace air. For residential exposure, the interim action level was derived consistent with methods described by EPA Region IX (EPA 2004a) and was based on the following algorithm:

$$C = [TR \times AT \times 1{,}000\ \mu g/mg] / [EF_r \times InhF_{adj} \times CSF]$$

Where:

C_i = Target concentration of 1 µg/m^3 derived by EPA for residential settings

TR = 10^{-6} through application of the Office of Environmental Health Hazard Assessment (OEHHA) CSF of 0.007 mg/kg-day)$^{-1}$ or

= 10^{-4} through application of the upper-end EPA draft CSFs of 0.4 mg/kg-day)$^{-1}$

$InhF_{adj}$ = Inhalation factor ([m^3-yr]/[kg-d]) where:

$$InhF_{adj} = \frac{ED_c \times IRA_c}{BW_c} + \frac{(ED_r - ED_c) \times IRA_a}{BW_a}.$$

IRA = inhalation rate (m^3/day) = IRA_a - 20 m^3 for adults
= IRA_c - 10 m^3 for children

ED = exposure duration (years) = ED_a - 30 for adults
= ED_c - 6 for children

EF	=	exposure frequency (days/year)	=	350 days
BW	=	body weight (kg)	=	BW_c - 15 for children
			=	BW_a - 70 for adults
AT	=	averaging time (days)	=	25,500.

The TCE interim action level for workers is derived through the same algorithm as follows:

$$C = [TR \times AT \times 1{,}000\ \mu g/mg] / [EF \times InhF_{adj} \times CSF]$$

Where:

C	=	target concentration of 2.7 $\mu g/m^3$ derived by EPA for commercial settings		
TR	=	10^{-6} through application of the OEHHA CSF of 0.007 $(mg/kg\text{-}day)^{-1}$ or		
	=	10^{-4} through application of the upper-end EPA draft CSFs of 0.4 $(mg/kg\text{-}day)^{-1}$		
IRA	=	inhalation rate (m^3/day)	=	15.1 m^3 for workers
			=	1.6 m^3 per hour for 9.5 hours
ED	=	exposure duration (years)	=	25 years for workers
EF	=	exposure frequency (days/year)	=	250 work days per year
BW	=	body weight (kg)	=	70 for adults
AT	=	averaging time (days)	=	25,500 days

4.2.3.2. Interpretation of TCE Interim Action Level

The target risk level represented long-term exposure to TCE and either a 10^{-4} risk through application of the draft upper-end CSF derived by EPA 2001 or a 10^{-6} risk through application of the CSF recommended by Cal/EPA and the EPA OAQPS. Each of the values represented long-term exposure at that concentration, i.e., 350 days per year for 30 years for the residential interim value and 250 days per year for 25 years for the workplace interim value. They also represented full-time inhalation exposure to the TCE interim action level (24-hours per day) for the residential exposure. For the worker interim action level it was assumed that the worker inhales air at a concentration of 2.7 $\mu g/m^3$ for 9.5 hours per working day at a moderate inhalation rate (i.e., assuming a moderate level of activity and an inhalation rate of 1.6 m^3/hour which represents more activity than sitting at a desk). These assumptions represented health-protective residence and workplace exposure scenarios.

Because these risk-based concentrations are linear, exposure for a shorter time-period would represent a lower risk and exposure for a longer time-period would represent a higher risk. Thus, if a worker accesses an area briefly, works shorter days or less often, or works at that location for less than 25 years, risks will be lower. For example, if a workplace area is only accessed 25 days per year, the risks associated with the 2.7 $\mu g/m^3$ interim action level would be reduced from 10^{-6} to 10^{-7}.

Because the TCE interim action level (and PRGs) represent long-term acceptable health-based concentrations, final decisions regarding actions taken in buildings should consider long-term exposure conditions, best represented by the range of data collected during normally operating building conditions rather than maximum values only.

4.3 Sampling Results for Commercial Buildings

A total of 47 commercial buildings have been sampled at the Site. The following subsections present an evaluation of the sampling results in each of the commercial buildings sampled. Sample locations and posted TCE concentrations are shown on Figures 4-3 to 4-46 for the sampled commercial buildings. TCE concentration plots for commercial building samples, including a description of interim mitigation measures, are shown on Figures 4-47 to 4-86. Tables 4-14 and 4-16 compare the maximum indoor concentrations detected in each sampled building to long-term exposure goals and to the estimated background concentrations.

Table 4-18 compares TCE indoor air concentrations sampled on commercial building to outdoor ambient air concentrations using a Wilcoxon non-parametric statistical test. The Wilcoxon test compares the indoor concentrations to outdoor concentrations to evaluate if there is a statistically significant difference between the two datasets. Non-parametric methods make no assumptions about the distribution of the data. The one-sided test is used to test the null hypothesis that the sum of the ranks of the two groups are equal, against the alternative hypothesis that the sum of the ranks for indoor samples is greater than the outdoor rank sum. A significance, or probability p-value, level of 0.05 is used (95% confidence). A p-value greater than 0.05 indicates that concentrations are equal or that indoor concentrations are lower than (or similar to) outdoor ambient air concentrations.

4.3.1 Fairchild Semiconductor Corporation

A total of 403 indoor, outdoor ambient air, and pathway samples were collected from 13 buildings located at former Fairchild facilities at the Site (Table 4-4). Sample locations were finalized on the pre-sampling walkthroughs with EPA. Original sampling was conducted in spring and fall 2003 when two discreet sampling rounds were collected in each season at each of the selected locations, separated by a one-week period. Air samples were collected over a 10-hour period. Additional confirmation samples were collected in two buildings after Fairchild implemented interim mitigation measures.

Fairchild sampled the following buildings:

- 313 Fairchild Drive
- 323 Fairchild Drive
- 369 N. Whisman Road
- 379 N. Whisman Road
- 389 N. Whisman Road
- 399 N. Whisman Road
- 515 N. Whisman Road
- 545 N. Whisman Road
- 404 National Avenue

- 644 National Avenue
- 464 Ellis Street
- 466 Ellis Street
- 468 Ellis Street

In general, the results showed indoor air concentrations below the TCE interim action level of 2.7 $\mu g/m^3$ with the exception of two buildings at 401 and 644 National Avenue where certain indoor air samples showed TCE concentrations above the action level. Fairchild implemented interim mitigation measures in these two buildings to reduce air concentrations and collected confirmation samples. The following subsections detail the results in each of the buildings.

4.3.1.1. 313 Fairchild Drive

Building Description: Office use, occupied, 2 floors, approximately 67,680 square feet (ft^2), slab-on-grade, vapor barrier, soil-cement foundation.

Number of Discrete Samples Analyzed: 18 indoor (including 2 duplicates); 8 outdoor (including 1 duplicate); 6 pathway (including 2 duplicates).

Sample Locations: Indoor samples (313AMB1, 313AMB2, 313AMB3 and 313AMB4 collected in office areas). Outdoor samples (313HVAC1 and 313HVAC2 collected on the roof at HVAC inlets). Pathway samples (313PATH1 collected in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; 1,2-DCB; 1,1-DCE; trans-1,2-DCE), outdoor samples (1,1-DCA; TCE, vinyl chloride; cis-1,2-DCE; trans-1,2-DCE), pathway samples (1,1-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-3 shows the sample locations and posted TCE concentrations. Figure 4-47 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor ambient air concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the building footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected indoor air concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations.

TCE was detected in pathway samples in an unoccupied electrical room at concentrations ranging from 0.17 to 3.1 $\mu g/m^3$. However, the detection of 3.1 $\mu g/m^3$ was never confirmed by subsequent samples. Detected TCE concentrations in the other pathway samples at the same location ranged between 0.17 and 0.70 $\mu g/m^3$, substantially below 2.7 $\mu g/m^3$. The same sample that showed 3.1 $\mu g/m^3$ showed 1,2-DCB of 9.9 $\mu g/m^3$, but 1,2-DCB was not detected in any of the other samples collected at the same location. The data show that vapor intrusion generally does not appear to be occurring at levels above outdoor background or outdoor ambient air concentrations or at levels higher than long-term exposure goals.

4.3.1.2. 323 Fairchild Drive

Building Description: Office use, occupied, 2 floors, approximately 67,680 ft^2, slab-on-grade, vapor barrier, soil-cement foundation.

Number of Discrete Samples Analyzed: 20 indoor (including five duplicates); 4 outdoor; 8 pathway (including 4 duplicates).

Sample Locations: Indoor samples (323AMB1 in the cafeteria dining area, 323AMB2, 323AMB3 and 323AMB4 collected in office and open areas). Outdoor samples (323HVAC1 and 323HVAC2 collected on the roof at HVAC inlets). Pathway samples (323PATH1 collected in the kitchen area and 323PATH2 in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; 1,1-DCE; trans-1,2-DCE), pathway samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-4 shows the sample locations and posted TCE concentrations. Figure 4-48 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor ambient air concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the building footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were lower than the long-term exposure goals. Although TCE concentrations in indoor air were statistically higher than those in outdoor ambient air, the average indoor air concentrations (0.21 $\mu g/m^3$) were not very different from the average outdoor ambient air concentrations (0.18

$\mu g/m^3$) as shown in Table 4-18. Indoor air concentrations were below the estimated background outdoor concentrations.

4.3.1.3. 369 N. Whisman Road

Building Description: Office use, occupied, 2 floors, approximately 65,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 19 indoor (including 3 duplicates); 4 outdoor; 3 pathway (including 1 duplicate).

Sample Locations: Indoor samples (369AMB1, 369AMB2, 369AMB3 and 369AMB4 collected in office and open areas). Outdoor samples (369HVAC1 and 369HVAC2 collected on the roof at HVAC inlets). Pathway samples (369PATH1 collected in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,2-DCB; 1,1-DCE; trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-5 shows the sample locations and posted TCE concentrations. Figure 4-49 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were lower than EPA's long-term goals. One sample at location 369AMB1 showed TCE at 1.6 $\mu g/m^3$. Other samples at this and all other locations were consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations.

4.3.1.4. 379 N. Whisman Road

Building Description: Office use, occupied, 2 floors, approximately 65,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 19 indoor (including 3 duplicates); 7 outdoor (including 1 duplicate); 2 pathway.

Sample Locations: Indoor samples (379AMB1, 379AMB2, 379AMB3 and 379AMB4 collected in office and open areas). Outdoor samples (379HVAC1 and 379HVAC2 collected on the roof at HVAC inlets). Pathway samples (379PATH1 collected in a men's restroom).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-6 shows the sample locations of and posted TCE concentrations. Figure 4-50 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations.

4.3.1.5. 389 N. Whisman Road

Building Description: Office use, occupied, 2 floors, approximately 65,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 18 indoor (including 2 duplicates); 5 outdoor (including 1 duplicate); 2 pathway.

Sample Locations: Indoor samples (389AMB1, 389AMB2, 389AMB3 and 389AMB4 collected in office and open areas). Outdoor samples (389HVAC1 and 389HVAC2 collected at rooftop HVAC inlets). Pathway samples (389PATH1 collected in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,1-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and Freon 113).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-7 shows the sample locations and posted TCE concentrations. Figure 4-51 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE and PCE were detected at 2.1 and 7.9 $\mu g/m^3$, respectively, in one indoor sample. These results were not consistent with other indoor air samples because detections in a co-located EPA sample collected on the same day were significantly lower, and results from all other samples at this location were non-detect for these analytes. In general, TCE concentrations in indoor air seem to be consistent with outdoor ambient air TCE concentrations (average indoor air and outdoor air TCE concentrations were 0.30 and 0.18 $\mu g/m^3$, respectively as shown on Table 4-18) and below the estimated background concentrations.

4.3.1.6. 399 N. Whisman Road

Building Description: Office use, occupied, 2 floors, approximately 65,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 18 indoor (including 2 duplicates); 6 outdoor; 3 pathway (including 1 duplicate).

Sample Locations: Indoor samples (399AMB1, 399AMB2, 399AMB3 and 399AMB4 collected in office and open areas). Outdoor samples (399HVAC1 and 399HVAC2 collected on the roof at HVAC inlets). Pathway samples (399PATH1 collected in a men's restroom).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; TCE; vinyl chloride; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-8 shows the sample locations and posted TCE concentrations. Figure 4-52 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE

concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations. Relatively higher PCE (8.9 $\mu g/m^3$) and 1,2-DCB (2.9 $\mu g/m^3$) data were observed in one indoor sample at location 399AMB4. All additional samples collected at this location did not reproduce the results and were either non-detect or close to the detection limit.

4.3.1.7. 401 National Avenue

Building Description: Office use, 2 floors, first floor partially occupied, second floor unoccupied, approximately 14,000 ft^2.

Number of Discrete Samples Analyzed: 24 indoor (including 3 duplicates), 12 outdoor (including 2 duplicates) and 7 pathway (including 2 duplicates).

Sample Location: Indoor samples (401AMB1 and 401AMB2 collected in internal offices, 401AMB3 and 401AMB4 collected in the crystal growing area). Outdoor samples (401OUT1 and 401OUT2 collected outside the building to the north and south, respectively. Pathway samples (401PATH1 collected in an unoccupied utility room).

Sample Duration: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (vinyl chloride and trans-1-2-DCE), outdoor samples (1,1-DCA; 1,2-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE, trans-1,2-DCE), pathway samples (1,2-DCA; vinyl chloride; 1,2-DCB).

Implemented Mitigation Measures: In August 2003, Fairchild sealed cracks and penetrations in the utility room. Further work in the utility room was completed in March 2004, consisting of reconnecting the existing exhaust fan to the building's electrical power source and installing ducting to enhance ventilation in the interior portions of the building.

Tables and Figures: Figure 4-9 shows the sample locations and posted TCE concentrations. Figure 4-53 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Fairchild sealed cracks and penetrations in the utility room in August 2003. Following the sealing work, Fairchild conducted a test by starting the ventilation system in the office portion of the building. Because the ventilation system had not been operated at the building for a while, it created unacceptable dust and heat and was operated for only 1.5 hours. Regardless, confirmation samples were collected. The confirmation samples showed that the mitigation measures were effective in reducing concentrations to below the TCE interim action level of 2.7 $\mu g/m^3$.

Further work in the utility room was completed in March 2004 by reconnecting the existing exhaust fan to the electrical source and installing ducting to enhance the ventilation in the interior portions of the building. Additional confirmation samples were collected on 1 April 2004. The results show that the mitigation measures successfully reduced TCE concentrations to below EPA's interim action level in the occupied parts of the building. In the unoccupied utility room, TCE was measured at a concentration of 5.6 $\mu g/m^3$.

Before the mitigation measures were implemented, TCE had been detected in 12 of 13 indoor samples with concentrations ranging from 0.14 to 51 $\mu g/m^3$, and in 3 of 3 pathway samples with concentrations ranging from 50 to 74 $\mu g/m^3$. After mitigation, TCE was detected in 9 of 11 indoor samples with concentrations ranging from 0.2 to 2.2 $\mu g/m^3$, and in 4 of 4 pathway samples with concentrations ranging from 2.3 to 6.4 $\mu g/m^3$.

The effectiveness of the mitigation measures can also be demonstrated by comparing the concentrations of other constituents before and after implementation. For example, before mitigation, cis-1,2-DCE had been detected in 7 of 13 indoor samples with concentrations ranging from 1.1 to 13 $\mu g/m^3$, and in 3 of 3 pathway samples with concentrations ranging from 13 to 18 $\mu g/m^3$. After mitigation, cis-1,2-DCE was detected in 8 of 11 indoor samples with concentrations ranging from 0.17 to 0.87 $\mu g/m^3$, and in 4 of 4 pathway samples with concentrations ranging from 0.48 to 1.4 $\mu g/m^3$.

Before mitigation, Freon 113 had been detected in 12 of 13 indoor samples with concentrations ranging from 0.67 to 64 $\mu g/m^3$, and in 3 of 3 pathway samples with concentrations ranging from 48 to 56 $\mu g/m^3$. After mitigation, Freon 113 was detected in 11 of 11 indoor samples with concentrations ranging from 0.62 to 4 $\mu g/m^3$ and in 4 of 4 pathway samples with concentrations ranging from 2.1 to 15 $\mu g/m^3$.

One sample in the utility room showed PCE of 14 $\mu g/m^3$ after implementation of the mitigation measures. Because other constituents showed substantial decreases in concentrations post-mitigation, this PCE concentration may have been from an indoor source. Two samples at the same location post-mitigation showed much lower PCE concentrations of 0.37 and 0.30 $\mu g/m^3$.

4.3.1.8. 464 Ellis Street

Building Description: Office use, unoccupied, 2 floors, approximately 86,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 20 indoor (including 4 duplicates); 4 outdoor; 3 pathway (including 1 duplicate).

Sample Locations: Indoor samples (464AMB1, 464AMB2, 464AMB3 and 464AMB4 collected in office and open areas). Outdoor samples (464HVAC1 and 464HVAC2 collected on the roof at HVAC inlets). Pathway samples (464PATH1 collected in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-10 shows the sample locations and posted TCE concentrations. Figure 4-54 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations.

4.3.1.9. 466 Ellis Street

Building Description: Office use, occupied, 3 floors, approximately 81,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 17 indoor (including 1 duplicate); 7 outdoor (including 3 duplicates); 2 pathway.

Sample Locations: Indoor samples (466AMB1, 466AMB2, 466AMB3 and 466AMB4 collected in office and open areas). Outdoor samples (466HVAC1 collected on the roof at an HVAC inlet). Pathway samples (466PATH1 collected in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (vinyl chloride; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-11 shows the sample locations and posted TCE concentrations. Figure 4-55 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway

samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. Although TCE concentrations in indoor air were statistically higher than those in outdoor ambient air, the average indoor air concentrations (0.19 $\mu g/m^3$) were not very different from the average outdoor ambient air concentrations (0.18 $\mu g/m^3$) as shown in Table 4-18. Indoor air concentrations were below the estimated background outdoor concentrations.

4.3.1.10. 468 Ellis Street

Building Description: Office use with kitchen and dining area, occupied, 2 floors, approximately 86,000 ft^2, soil-cement foundation, slab-on-grade, vapor barrier.

Number of Discrete Samples Analyzed: 19 indoor (including 3 duplicates); 6 outdoor; 5 pathway (including 1 duplicate).

Sample Locations: Indoor samples (468AMB1 collected in the flower shop; 468AMB2, 468AMB3 and 468AMB4 collected in the kitchen and dining areas). Outdoor samples (468HVAC1 and 468HVAC2 collected on the roof at HVAC inlets). Pathway samples (468PATH1 collected in an electrical room and 468PATH2 collected in the kitchen area).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-12 shows the sample locations and posted TCE concentrations. Figure 4-56 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations.

4.3.1.11. 515 N. Whisman Road

Building Description: Office use, unoccupied, 2 floors, approximately 76,000 ft^2, slab-on-grade construction.

Number of Discrete Samples Analyzed: 18 indoor (including 2 duplicates); 5 outdoor (including 1 duplicate); 3 pathway (including 1 duplicate).

Sample Locations: Indoor samples (515AMB1, 515AMB3 and 515AMB4 collected from office and open areas; 515AMB2 collected from a conference room). Outdoor samples (515HVAC1 and 515HVAC2 collected on the roof at HVAC inlets). Pathway samples (515PATH1 collected in a janitorial supply closet).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-13 shows the sample locations and posted TCE concentrations. Figure 4-57 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provides summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient air concentrations and below the estimated background outdoor concentrations.

4.3.1.12. 545 N. Whisman Road

Building Description: Office use, occupied, 2 floors, approximately 76,000 ft^2, slab-on-grade construction.

Number of Discrete Samples Analyzed: 21 indoor (including 5 duplicates); 8 outdoor (including 2 duplicates); 2 pathway.

Sample Locations: Indoor samples (545AMB1, 545AMB2, 545AMB3 and 545AMB4 collected from office and open areas). Outdoor samples (545HVAC1 and 545HVAC2 collected on the roof at HVAC inlets). Pathway samples (545PATH1 collected in an unoccupied electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-14 shows the sample locations and posted TCE concentrations. Figure 4-58 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. TCE concentrations seem to be consistent with outdoor ambient air TCE concentrations (average indoor air and outdoor air TCE concentrations were 0.30 and 0.18 $\mu g/m^3$, respectively as shown on Table 4-18) and below the estimated background concentrations. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: TCE was detected in 2 indoor samples (a primary sample and its duplicate) at concentrations above the interim action level of 2.7 $\mu g/m^3$. Although the detected concentration of 3.4 $\mu g/m^3$ at one indoor location was confirmed by the duplicate sample collected on the same date, the results could not be reproduced in subsequent sampling events.

All other detected concentrations are below the long-term exposure goals. With the two indoor air samples mentioned above included in the calculations, TCE in indoor air is slightly higher than outdoor ambient air (averages of 0.48 and 0.28 $\mu g/m^3$, respectively), but statistically, the indoor and outdoor ambient air concentrations are not different (Table 4-18) . TCE in indoor air samples were below the estimated background outdoor concentrations.

4.3.1.13. 644 National Avenue

Building Description: Office use, 2 floors and an unoccupied basement, approximately 36,000 ft^2. The building was sold and vacated in late 2007, and is scheduled to be demolished in 2008. The basement was originally unventilated (an exhaust system has been added). There was no mechanical ventilation for the first floor, but some mechanical ventilation existed for the second floor. It was observed during a walkthrough that the basement had open sumps that collected groundwater. Groundwater was pumped from the sumps into a Fairchild remediation system for treatment. In addition to open sumps, groundwater had leaked through joints and cracks onto the basement floor, but was conveyed by floor drains to the sumps. Some standing water had been observed.

Number of Discrete Samples Analyzed: 36 indoor (17 in basement, 11 on first floor and 8 on second floor) and 12 outdoor.

Sample Locations: Indoor samples (644AMB3, 644AMB4, 644AMB6 and 644AMB7 collected in the basement; 644AMB1 and 644AMB5 collected on the first floor in work and lobby areas, respectively; 644AMB2 collected on

the second floor in office area). Outdoor samples (644OUT1 collected on roof of first floor, 644OUT2 collected outside west wall of building).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,2-DCA), outdoor samples (1,1-DCA; 1,2-DCA; 1,2-DCB; 1,1-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: In August 2003, Fairchild sealed the elevator shaft and openings in the basement floor, including the sumps. In addition, Fairchild sealed several openings in the floor between the basement and the first floor and installed two exhaust fans in the basement, each with a capacity of 6,000 cubic feet per minute (cfm).

Tables and Figures: Figures 4-15 and 4-16 show the sample locations and posted TCE concentrations. Figure 4-59 presents a plot of TCE concentrations. Table 4-5 provides a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: In August 2003, Fairchild sealed the elevator shaft and openings in the basement floor. In addition, Fairchild sealed several openings in the floor between the basement and the first floor and installed two exhaust fans in the basement, each with a capacity of 6,000 cfm.

Following the mitigation work, Fairchild conducted a test by starting the fans in the basement and the ventilation system connected to the second floor and collecting confirmation air samples on 13 November 2003, after basement ventilation had operated for one week and the ventilation system in the top floor had operated for three days. Sample results demonstrated that the mitigation measures substantially reduced concentrations in the building. The TCE concentrations on the first and second floors were reduced to non-detect levels or to concentrations slightly above the detection level. TCE concentrations in the basement were reduced 20-fold, but remained above the TCE interim action level of 2.7 $\mu g/m^3$.

Subsequently, the owner requested that the fans operate only at night instead of 24 hours. A timer was installed on the exhaust system to operate between 12AM and 6AM. Confirmation samples were then collected without operating the ventilation system on the second floor. The concentrations in the basement increased, as expected, because the operation of the system was reduced from 24 to 6 hours. However, TCE concentrations were one order of magnitude less than the concentrations measured before operating the system. In the first and second floor, the TCE concentrations were non-detect or below EPA's action level, with a maximum detection of 0.59 $\mu g/m^3$.

Several visits by MEW Contractors to the basement at 644 National Avenue to collect samples, to service the exhaust system, and to service the groundwater sump pump indicated that the basement had not been routinely occupied. Instead, the basement has been used for storage where it was accessed intermittently, most recently for

temporary storage of Katrina relief efforts. In late 2007, the building was sold and vacated, and is scheduled for demolition in 2008.

Sample results demonstrate a reduction in indoor air concentrations. Before mitigation, TCE had been detected in 8 of 8 indoor samples in the basement with concentrations ranging from 190 to 490 $\mu g/m^3$ and in 11 of 11 indoor samples on the first and second floors with concentrations ranging from 15 to 94 $\mu g/m^3$. After mitigation, TCE was detected in 9 of 9 samples from the basement with concentrations ranging between 14 and 43 $\mu g/m^3$ (14 $\mu g/m^3$ was measured when the ventilation system was operating 24 hours per day and 43 $\mu g/m^3$ was measured when the system was operating for 6 hours per day) and detected in 4 of 8 samples on the first floor and second floor with concentrations ranging from 0.24 to 0.59 $\mu g/m^3$.

The effectiveness of the exhaust system in the basement can also be demonstrated by comparing the concentrations of other constituents before and after installation of the system. For example, before mitigation cis-1,2-DCE was detected in 8 of 8 indoor samples in the basement with concentrations ranging from 64 to 190 $\mu g/m^3$ and in 11 of 11 indoor samples on the first and second floors with concentrations ranging from 8.2 to 41 $\mu g/m^3$. After mitigation, it was detected in 9 of 9 basement samples with concentrations ranging between 3 and 6.5 $\mu g/m^3$ and in 1 of 11 indoor samples on the first and second floors with a concentration of 0.14 $\mu g/m^3$.

Before mitigation, vinyl chloride was detected in 8 of 8 indoor samples in the basement with concentrations ranging from 3.9 to 14 $\mu g/m^3$ and in 8 of 11 indoor samples on the first and second floors with concentrations ranging from 0.69 to 2.3 $\mu g/m^3$. After mitigation it was detected in 8 of 9 basement samples with concentrations ranging between 0.050 and 0.12 $\mu g/m^3$ and was not detected in the first and second floors.

1,1-DCA was detected before mitigation in 6 of 8 indoor basement samples with concentrations ranging from 0.67 to 1.3 $\mu g/m^3$ and in 6 of 11 indoor samples on the first floor with concentrations ranging from 0.16 to 0.37 $\mu g/m^3$. After mitigation, 1,1-DCA was detected in 1 of 9 basement samples with a concentration of 0.14 $\mu g/m^3$ and was not detected on the first or second floor.

The mitigation measures were successful in isolating the basement's indoor air concentrations from the first and second floors. No additional remedies are planned for this building because it will be demolished in 2008.

4.3.2 Intel Corporation

A total of 41 indoor, outdoor ambient and pathway samples were analyzed from one building located at 355/365 E. Middlefield Road (Table 4-4). Sample locations were finalized on the pre-sampling walkthrough with EPA. Sampling was conducted in spring and fall 2003 when two discreet sampling rounds were collected in each season at each of the selected locations, separated by a one-week period. After the spring 2003 rounds, Intel sealed cracks and refurbished the ventilation system in the building to increase the make-up air. Then, Intel collected confirmation samples in September and December 2003.

4.3.2.1. 355/365 E. Middlefield Road

Building Description: Office use, 1 floor, 355 E. Middlefield Road occupied, 365 E. Middlefield unoccupied, slab-on-grade, approximately 23,000 ft^2.

Number of Discrete Samples Analyzed: 26 indoor (including 4 duplicates), 9 outdoor and 7 pathway.

Sample Locations: Indoor samples (IR1, IR2, IR3 and IR4 collected in open space areas at 365 E. Middlefield Road; IR5 and IR6 collected at 355 E. Middlefield Road in the Shop Area and open space, respectively. IR7 is a co-located sample with IR6). Outdoor samples (OP1 and OP2 collected on the roof at HVAC inlets). Pathway samples (IP1 and IP2 collected in an observed crack at 355 E. Middlefield Road in the Shop Area and in the restroom at 365 E. Middlefield Road, respectively).

Sample Durations: 12 hours (spring and fall 2003), 10 hrs (December 2003).

Samples Analyzed for: 1,1-DCA; TCE; vinyl chloride; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,1-DCE; trans-1,2-DCE), outdoor samples (1,1-DCA; vinyl chloride; 1,1-DCE; trans-1,2-DCE), pathway samples (1,1-DCA; vinyl chloride; trans-1,2-DCE).

Implemented Mitigation Measures: Intel sealed cracks and contracted an HVAC specialist to service and retrofit the HVAC system. Repairs included replacing all filters, changing fluids, replacing fan belts, adjusting the dampers for outdoor air intake and installing a damper on a unit that did not provide outdoor make-up air. The air exchange rate was increased to 1.2 hr^{-1}.

Tables and Figures: Figure 4-17 shows the sample locations and posted TCE concentrations. Figure 4-60 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor ambient air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: All indoor air samples, even those collected before implementation of mitigation measures, showed concentrations below the long-term exposure goals. However, Intel implemented remedial measures to reduce pathway sample concentrations as a precautionary measure. Pathway samples collected from small cracks in the concrete floor at 355 East Middlefield Road showed TCE concentrations above EPA's interim action level of 2.7 $\mu g/m^3$.

During the May 2003 sampling event, it was noted that the HVAC units that control the indoor air quality where the 355 East Middlefield pathway samples were collected were either inoperable or operating improperly, while the HVAC units for the 365 East Middlefield were in good working condition. Subsequently, Intel contracted an HVAC repair specialist to examine and repair the units for the 355 East Middlefield portion of the building.

Following HVAC repair and improvements, Intel collected confirmation air samples in September and December 2003 to assess TCE concentrations in the indoor air breathing zone and along the floor cracks. All confirmation air samples showed TCE concentrations below the EPA interim action level. For example, maximum TCE concentrations in pathway samples were reduced from 49 $\mu g/m^3$ prior to mitigation to 0.62 $\mu g/m^3$ post-mitigation. And while indoor air concentrations were already below the long-term exposure goals, concentrations were further reduced. After mitigation, TCE concentrations were consistent with outdoor ambient air and below the estimated background outdoor concentrations.

4.3.3 NEC Electronics, Inc.

A total of 56 indoor, outdoor ambient and pathway samples were collected and analyzed from one building located at 501 Ellis Street (Table 4-4). Sample locations were finalized on the pre-sampling walkthrough with EPA. Two rounds of samples were collected in April and May 2003. Additional rounds were collected in September and October 2003, January 2004, and December 2004 and January 2005.

4.3.3.1. 501 Ellis Street

Building Description: Office use, partially occupied, 1 floor, approximately 28,000 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 35 indoor (including 10 duplicates); 10 outdoor (including 1 duplicate); 11 pathway (including 2 duplicates) of which 4 are associated with pipes.

Sample Locations: Indoor samples (V-1 collected in the occupied portion of the building in a cubicle, V-2 and V-3 collected in the unoccupied portion of the building in open areas, V-4 collected in the unoccupied portion of the building in a cubicle). Outdoor samples (V-5 and V-6 collected on the roof). Pathway samples (Server Room and V-9 collected on the floor in the southeast office). Four additional samples were collected at drain or pipe openings.

Sample Durations: 24 hours and 10 hours.

Samples Analyzed for: PCE; TCE; vinyl chloride; cis-1,2-DCE.

Analytes not Detected: Indoor samples (vinyl chloride; cis-1,2-DCE), outdoor samples (vinyl chloride), pathway samples (vinyl chloride; cis-1,2-DCE).

Implemented Mitigation Measures: Plugged fire sprinkler test drain and posted signage.

Tables and Figures: Figure 4-18 shows the sample locations and posted TCE concentrations. Figure 4-61 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: The April/May 2003 sampling events detected only TCE in the indoor air samples; these detections were below the interim action level of 2.7 $\mu g/m^3$.

In the September/October 2003 rounds, TCE was below the interim action level in all but one location, V-2, where TCE concentrations were at a maximum of 5.8 $\mu g/m^3$. NEC identified several variables that may have caused this concentration, including building occupancy, HVAC system operation and the barometric pressure within the building. It was found that only three of eight HVAC units that service the unoccupied portion of the building were operating when these samples at location V-2 were collected. During the September round, EPA collected a pathway sample within the fire sprinkler test system drain located in the server room. In October, NEC collected air samples on the floor near the drain and in the server room.

Subsequently, NEC conducted another sampling and evaluation round in January 2004 to evaluate why certain fall 2003 results were inconsistent with the spring 2003 results and to assess the effect of the fire sprinkler system drain in the server room. The January 2004 air sampling event consisted of evaluating the HVAC system operation, checking the office in the southeastern portion of the building for additional slab penetrations, sealing the fire sprinkler test system drain with a plug, sampling indoor and outdoor ambient air at the Site, analysis of the air samples, data evaluation and reporting. The sampling showed TCE concentrations below the interim action levels at all locations. Nevertheless, NEC recommended sealing the two pipes in the southeast office with sealing foam and performing additional confirmation sampling concurrently with collecting temperature and HVAC operation data.

In the winter 2005 sampling event (December 2004/January 2005), six locations were sampled inside the building; five sampling locations were at breathing zone height and one location was on the floor, adjacent to a possible preferential pathway. TCE was detected in only one indoor sample during the December 2004 sampling round at a concentration of 11 $\mu g/m^3$. A sample collected by EPA at the same location and during the same time did not detect TCE. Subsequently, NEC re-sampled the same location in January 2005 and TCE was not detected above the detection limit of 0.19 $\mu g/m^3$ in either the sample or the duplicate sample; TCE was not detected in the duplicate samples collected by EPA during the January re-sampling.

4.3.4 Raytheon Company

A total of 378 indoor, outdoor ambient and pathway samples were collected from 7 buildings located at Raytheon's former facilities at the Site (Table 4-4). Sample locations were finalized on the pre-sampling walkthrough with EPA. Original sampling was conducted in spring and fall 2003 when two discreet sampling rounds were collected in each season at each of the selected locations, separated by a one-week period. Air samples were collected over a 10-hour period. Additional samples were collected in some buildings.

Raytheon sampled the following buildings:

- 401 E. Middlefield Road
- 415 E. Middlefield Road
- 370 Ellis Street Building A
- 370 Ellis Street Building B
- 380 Ellis Street Building C
- 380 Ellis Street Building D
- 350 Ellis Street Building E

The buildings at 401 and 415 E. Middlefield Road were unoccupied when sampled and remain unoccupied. These buildings were sampled with different modes of ventilation, with the HVAC systems turned on and off. Because of access conditions, the buildings on 350-380 Ellis Street were sampled on the weekend when the HVAC system was off in Buildings A, B and C. A limited sampling round was subsequently conducted on a weekday in Buildings A, B and C in November 2003. A more comprehensive round of weekday sampling was subsequently completed in September 2006.

Raytheon implemented interim mitigation measures in certain utility rooms in Buildings A, B, C, D and E after it was found that conduits in these utility rooms are connected to deep vaults outside the buildings (Figure 4-87). Groundwater was observed to collect at the bottom of these vaults. Confirmation samples were collected after implementation of these mitigation measures. The following sections detail the results in each of the buildings.

The draft RI report submitted to EPA in February 2008 recommended collection of additional weekday samples at the 350-380 Ellis Street buildings. Raytheon collected an additional round in September 2008 in these buildings, and the information was provided in the 2008 Annual report for the properties (Locus, 2009). The indoor air results showed TCE concentrations below the interim action level.

4.3.4.1. 401 E. Middlefield Road

Building Description: Office use, unoccupied, 1 floor, approximately 28,300 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 28 indoor (including 4 duplicates); 8 outdoor (including 2 duplicates); 2 pathway.

Sample Locations: Indoor samples (401AMB1R, 401AMB3R and 401AMB4R collected in open office spaces; 401AMB2R collected in a conference room). Outdoor samples (401HVAC1R collected on the roof near an HVAC inlet). Pathway samples (401PATH1R collected in a restroom).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; 1,1-DCE; trans-1,2-DCE), outdoor samples (1,1-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-19 shows the sample locations and posted TCE concentrations. Figure 4-62 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provides summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: The May and November 2003 sampling events were conducted with the ventilation system on. The October samples were collected with the ventilation system off.

With the ventilation system on, samples showed concentrations below the long-term exposure goals. TCE concentrations were consistent with outdoor ambient air and below the estimated background outdoor concentrations. When the ventilation system was off, TCE was measured at concentrations higher that the interim

action level of 2.7 μg/m^3. Specifically, with the ventilation system on, TCE was detected in 2 of 17 indoor air samples at concentrations of 0.24 and 0.7 μg/m^3. With the ventilation system off, TCE was detected in all 11 indoor air samples with concentrations ranging from 4.1 to 7.6 μg/m^3.

4.3.4.2. 415 E. Middlefield Road

Building Description: Office use, unoccupied, 1 floor, approximately 29,000 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 27 indoor (including 5 duplicates); 2 outdoor; 1 pathway.

Sample Locations: Indoor samples (415AMB1R and 415AMB3R collected in open office space, 415AMB2R collected in a conference room; 415AMB2R collected in an office). Outdoor samples (415HVAC1R collected on the roof near an HVAC inlet). Pathway samples (415PATH1R collected in a janitorial closet).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Outdoor samples (1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and 1,1,1-TCA).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-20 shows the sample location and posted TCE concentrations. Figure 4-63 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 provides indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: The May and November 2003 sampling events were conducted with the ventilation system on. The October samples were collected with the ventilation system off.

With the ventilation system on, samples showed concentrations that were below or within EPA's long-term goals with an exception outlined below. Specifically, with the ventilation system on, TCE was detected in 13 of 17 indoor air samples with concentrations ranging from 0.19 to 0.49 μg/m^3, with only one sample at a concentration of 4.8 μg/m^3 (this sample showed results for several analytes that were inconsistent with other indoor air results; the duplicate sample collected at the same location and same time did not reproduce the results in the primary sample). When the ventilation system was off, TCE was measured at concentrations higher than EPA's interim action level of 2.7 μg/m^3. With the ventilation system off, TCE was detected in all 10 indoor air samples at concentrations ranging from 5.6 to 7.6 μg/m^3.

TCE concentrations in indoor air (average of 0.52 μg/m^3) were statistically higher than those in outdoor ambient air (0.19 μg/m^3) as shown in Table 4-18. The indoor air TCE concentrations were lower than the estimated background concentrations.

4.3.4.3. 370 Ellis Street, Building A

Building Description: Office use, occupied, 4 floors, approximately 96,000 ft^2, slab-on-grade, passive venting system under slab, vapor barrier, conduits in certain utility rooms are connected to outside deep utility vaults.

Number of Discrete Samples Analyzed: 29 indoor (including 8 duplicates); 6 outdoor; 32 pathway (including 9 duplicates).

Sample Locations: Indoor samples (370AMB1A and 370AMB3A collected in open office areas, 370AMB2A and 370AMB4A collected in an office and a computer lab, respectively). Outdoor samples (370HVAC1A and 370HVAC2A collected on the roof near HVAC inlets). Pathway samples (370PATH1A and 370PATH2A collected in an unoccupied IDF utility room and an unoccupied Switch Gear Room, respectively).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,2-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; trans-1,2-DCE), outdoor samples (1,1-DCA; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,2-DCA; vinyl chloride; 1,2-DCB; and trans-1,2-DCE).

Implemented Mitigation Measures: Raytheon sealed conduits in the IDF Room (Room A106) and in the Switch Gear Room (A112). Subsequently, Raytheon installed air purification systems in both rooms.

Tables and Figures: Figure 4-21 shows the sample locations and posted TCE concentrations. Figure 4-64 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and construction type.

Evaluation of Sampling Results: Because of access limitations, the first four rounds of sampling were collected on weekends. The HVAC system does not operate on the weekends in this building. Two indoor air samples collected on the weekend showed TCE concentrations of 3.2 and 3.7 $\mu g/m^3$ at location 370AMB4. However, when that location was sampled on a weekday, it showed a TCE concentration between 0.34 and 0.45 $\mu g/m^3$. Based on this result, and those of other weekday samples collected in Buildings B and C (refer to the sections below), the weekday samples show TCE concentrations below the interim action level. TCE concentrations in indoor air (weekday average of 0.44 $\mu g/m^3$) were statistically higher than those in outdoor ambient air (0.20 $\mu g/m^3$) as shown in Table 4-18, but lower than the estimated background concentrations.

Some pathway samples collected in utility rooms A106 and A112 showed relatively high TCE concentrations. Although exposure is short and limited in these rooms, mitigation measures were completed in these utility rooms. The owner (Veritas, now Symantec) supplied Raytheon with as-built drawings of conduits connected to utility rooms and to underground utility vaults located along the perimeter of the campus. The drawings revealed that

conduits in the utility rooms are directly connected to vaults outside the building (Figure 4-87). Examination of these vaults showed that they are approximately 10 to 14 feet deep and apparently collect water. The depth to water near the deep vaults ranged between 10 and 16 feet in the time period when indoor air samples were collected.

On 8 July 2003, Raytheon collected air samples from utility vaults 1, 2, 3, 4, 6 and 7. The samples showed concentrations similar to those measured in utility rooms, indicating that the vaults are a possible source of the concentrations measured in the utility rooms. Subsequently, in August 2003, Raytheon sealed the conduits connecting the utility rooms A106 and A112 to the outside vaults.

After sealing the conduits, Raytheon collected confirmation samples in the utility rooms. In room A106 (370PATH1A) where pathway samples were collected before implementation of mitigation measures, the sealing of the conduits resulted in a significant decrease in concentrations. TCE in Room A106 decreased from a maximum of 170 $\mu g/m^3$ to a maximum of 13 $\mu g/m^3$ after the conduits were sealed. Freon 113 decreased from a maximum of 24 to a maximum of 7.2 $\mu g/m^3$; 1,1,1-TCA decreased from a maximum of 8.7 to a maximum of 2.3 $\mu g/m^3$. PCE remained virtually unchanged, indicating indoor sources of PCE.

After the initial findings in Room A106, Raytheon also sealed conduits in Switch Gear Room A112 (370PATH2A) and collected samples there. No samples were collected before sealing the conduits in Room A112.

After sealing the conduits, Raytheon performed a pilot test in room A106 by installing an air purification system in the room and collecting a series of confirmation samples. The system consists of a 55-gallon carbon vessel, which circulates the air in the room through the carbon. VOCs in the air adsorb onto the carbon, which is changed periodically. A noise abatement hood is provided with the unit to reduce the noise in the room, and the system is plugged into an 110V outlet for power. Room A106 is suitable for such a system because the IDF rooms are enclosed, fire-proof, and cooled using an air re-circulation system that is not supplied with outdoor make-up air. After installation of the air purifier in Room A106, TCE concentrations were reduced further. TCE in the most recent sample was 0.49 $\mu g/m^3$. This represents a three-order of magnitude decrease in TCE concentrations from the initial sampling before the mitigation measures were implemented.

Based on the success of the pilot test, Raytheon installed a system in Room A112 in November 2005 and collected confirmation air samples there. The average TCE concentration before mitigation was 4 $\mu g/m^3$ (with a maximum of 5.8 $\mu g/m^3$). The air purification system reduced the average to 2.5 $\mu g/m^3$ (37%), below the interim action level. .

4.3.4.4. 370 Ellis Street, Building B

Building Description: Office use, occupied, 4 floors, approximately 96,000 ft^2, slab-on-grade, passive venting system under slab, vapor barrier, conduits in certain utility rooms are connected to outside deep utility vaults.

Number of Discrete Samples Analyzed: 29 indoor (including 8 duplicates); 10 outdoor (including 1 duplicate); 19 pathway (including 6 duplicates).

Sample Locations: Indoor samples (370AMB1B, 370AMB2B and 370AMB3B collected in offices, 370AMB4B was collected in a computer lab). Outdoor samples (370HVAC1B and 370HVAC2B collected on the roof near HVAC inlets). Pathway samples (370PATH1B and 370PATH2B collected in an unoccupied electrical room and an unoccupied IDF room, respectively).

Samples Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,1-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; 1,2-DCA; vinyl chloride; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: Raytheon sealed conduits in the IDF Room (Room B104) and in the electrical room (B102). Subsequently, an air purification unit was installed in room B104.

Tables and Figures: Figure 4-22 shows the sample locations of and posted TCE concentrations. Figure 4-65 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: Because of access limitations, the first four rounds of sampling were collected on weekends. The HVAC system does not operate on the weekends in this building. Certain indoor air samples collected on the weekend showed TCE concentrations higher than EPA's interim action level of 2.7 $\mu g/m^3$. Raytheon then collected three samples on a weekday (November 2003) at the three locations where TCE was higher than the interim action level on the weekend. Raytheon followed this event with another weekday round in September 2006 at one location. TCE was not detected in any of the weekday samples. Based on this result, and those in other weekday samples collected in Buildings A and C, the weekday samples show TCE concentrations below the interim action level. The weekday samples were also consistent with outdoor ambient concentrations and below the estimated background outdoor concentrations.

Because of pathway samples results in other IDF rooms, Raytheon implemented mitigation measures in the two utility rooms even though exposure is short and limited in these rooms. The owner (Veritas, now Symantec) supplied Raytheon with as-built drawings of conduits connected to utility rooms and to underground utility vaults located along the perimeter of the campus. The drawings revealed that conduits in the utility rooms are connected directly to vaults outside the building (Figure 4-87). Examination of these vaults showed that they are approximately 10 to 14 feet deep and apparently collect water. The depth to water near the deep vaults ranged between 10 and 16 feet in the time period when indoor air samples were collected.

On 8 July 2003, Raytheon collected air samples from utility vaults 1, 2, 3, 4, 6 and 7. The samples showed concentrations similar to those measured in utility rooms, indicating that the vaults are a possible source of the concentrations measured in the utility rooms. Subsequently, in August 2003, Raytheon sealed the conduits connecting the utility rooms B102 and B104 to the outside vaults.

Although TCE concentrations in utility room B102 (370PATH1B) were low, Raytheon sealed the conduits in the room as a preventative measure. After the conduits were sealed, confirmation samples again showed low levels of TCE. One sample (and its duplicate) that showed TCE at 5.9 $\mu g/m^3$.

Raytheon also sealed conduits in the IDF Room B104 (370PATH2B) and installed an air purification system there. The system consists of a 55-gallon carbon vessel, which circulates the air in the room through the carbon. VOCs in the air adsorb onto the carbon, which is changed periodically. A noise abatement hood is provided with the unit to reduce the noise in the room and the system is connected to an 110V outlet for power. Room B104 is suitable for such a system because the IDF rooms are enclosed, fire-proof, and cooled using an air re-circulation system that is not supplied with outdoor make-up air. In Room B104, TCE concentrations in the room decreased significantly. TCE in the most recent sample was 0.59 $\mu g/m^3$.

4.3.4.5. 380 Ellis Street, Building C

Building Description: Office use, occupied, 4 floors, approximately 148,000 ft^2, slab-on-grade, passive venting system under slab, vapor barrier, conduits in certain utility rooms are connected to outside deep utility vaults.

Number of Discrete Samples Analyzed: 49 indoor (including 12 duplicates); 16 outdoor (including 4 duplicates); 22 pathway (including 3 duplicates).

Sample Locations: Indoor samples (380AMB1Cw, 380AMB4Ce collected in conference rooms; 388AMB2Cw collected in a corridor outside offices; 380AMB3Cw, 380AMB1Ce, 380AMB3Ce collected in offices; 380AMB4Cw, 380AMB2Ce collected in computer labs). Outdoor samples (380HVAC1Ce, 380HVAC2Ce, 380HVAC1Cw, 380HVAC2Cw, 380ROOF1Cw collected on the roof near HVAC inlets). Pathway samples (380PATH1Cw, 380PATH2Ce collected in unoccupied electrical rooms, 380PATH1Ce collected in an unoccupied IDF utility room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,2-DCA; 1,2-DCB; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,2-DCA; vinyl chloride; and trans-1,2-DCE).

Implemented Mitigation Measures: Raytheon sealed conduits in the IDF Room (Room C110) and in the electrical rooms (Rooms C102 and C113)). Subsequently, Raytheon installed an air purification system in IDF Room C110.

Tables and Figures: Figures 4-23 and 4-24 show the sample locations and posted TCE concentrations for the west and east side of the building, respectively. Figures 4-66 and 4-67 present a plot of TCE concentrations for the west and east sides of Building C, respectively. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: Because of access limitations, the first four rounds of samples were collected on weekends. The HVAC system does not operate on the weekends in this building. One indoor air sample collected

on the weekend showed a TCE concentration of 2.8 μg/m^3 at location 380AMB4Cw. However, when that location was sampled on a weekday in November 2003 and September 2006, it showed a TCE concentration of 0.31 and 0.21 μg/m^3, respectively. Another sample collected on a weekday at location 380AMB3Cw showed TCE at 0.44 μg/m^3 (the weekend samples showed concentrations of up to 1 μg/m^3). In general, weekday sample TCE concentrations ranged from 0.17 to 0.44 μg/m^3). Based on these result, and those of other weekday samples collected in Buildings A and B (refer to the sections above), the weekday samples detected TCE concentrations below the interim action level. Weekday TCE concentrations in indoor air (average of 0.27 μg/m^3) were statistically higher than those in outdoor ambient air (0.19 μg/m^3) as shown in Table 4-18, but below the estimated background outdoor concentrations.

Pathway samples collected in IDF room C110 showed relatively higher TCE concentrations. TCE was not detected in electrical room C113. Although exposure is short and limited in the IDF room, mitigation measures were completed in this room and in other utility rooms in the building. The owner (Veritas, now Symantec) supplied Raytheon with as-built drawings of conduits connected to utility rooms and to underground utility vaults located along the perimeter of the campus. The drawings revealed that conduits in the utility rooms are directly connected to vaults outside the building (Figure 4-87). Examination of these vaults showed that they are approximately 10 to 14 feet deep and collect water. The depth to water near the deep vaults ranged between 10 and 16 feet in the time period when indoor air samples were collected.

On 8 July 2003, Raytheon collected air samples from utility vaults 1, 2, 3, 4, 6 and 7. The samples showed concentrations similar to those measured in utility rooms, indicating that the vaults are a possible source of the concentrations measured in the utility rooms. Subsequently, in August 2003, Raytheon sealed the conduits connecting utility rooms C102, C110 and C113 to the outside vaults.

After sealing the conduits, Raytheon collected confirmation samples in the utility rooms. In room C110 (380PATH1Ce) where pathway samples were collected before implementation of mitigation measures, sealing the conduits resulted a significant decrease in concentrations. Specifically, TCE decreased from a maximum of 310 μg/m^3 to a maximum of 6.5 μg/m^3 after the conduits were sealed. PCE decreased from a maximum of 64 to a maximum of 2.8 μg/m^3; Freon 113 decreased from a maximum of 22 μg/m^3 to a maximum of 5.2 μg/m^3; 1,1,1-TCA decreased from a maximum of 24 μg/m^3 to a maximum of 1.4 μg/m^3; and cis-1,2-DCE decreased from a maximum of 1.7 μg/m^3 to non-detect levels.

After the initial findings in Room C110, Raytheon also sealed conduits in the electrical rooms C102 and C113 and collected samples. Low TCE concentrations were measured in the confirmation samples.

After sealing the conduits, TCE concentrations remained higher that EPA's interim action level in IDF Room C110. Raytheon installed an air purification system in the room and collected a series of confirmation samples. The system consists of a 55-gallon carbon vessel, which circulates the air in the room through the carbon. VOCs in the air adsorb to the carbon, which is changed periodically. A noise abatement hood is provided with the unit to reduce the noise in the room and the system is plugged into an 110V outlet for power. IDF Room C110 is suitable for such a system because the IDF rooms are enclosed, fire-proof, and cooled using an air re-circulation system that is not supplied with outdoor make-up air. In Room C110, TCE concentrations decreased significantly after installation of the air purifier. TCE in the most recent sample was 0.20 μg/m^3. This represents a three-order of magnitude decrease in TCE concentrations from the initial sampling in the room before the mitigation measures were implemented.

4.3.4.6. 380 Ellis Street, Building D

Building Description: Office use, occupied, 4 floors, approximately 100,000 ft^2, slab-on-grade, passive venting system under slab, vapor barrier, conduits in certain utility rooms are connected to outside deep utility vaults.

Number of Discrete Samples Analyzed: 27 indoor (including 8 duplicates); 5 outdoor; 14 pathway (including 4 duplicates).

Sample Locations: Indoor samples (380AMB1D and 380AMB2D collected in offices, 380AMB3D and 380AMB4D collected in conference rooms). Outdoor samples (380HVAC1D and 380HVAC2D collected on the roof near HVAC inlets). Pathway samples (380PATH1D and 380PATH2D collected in an unoccupied Switch Gear Room and an unoccupied IDF room, respectively).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; 1,2-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; 1,2-DCA; vinyl chloride; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: Raytheon sealed conduits in the IDF room (Room D104) and in the Switch Gear Room (D112).

Tables and Figures: Figure 4-25 shows the sample locations and posted TCE concentrations. Figure 4-68 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: Because of access limitations, the first four rounds of sampling were collected on weekends. Unlike buildings A, B and C (see sections above) on the Symantec Campus, the HVAC system in Building D operates on the weekends. Building D houses the executive offices; Symantec operates the HVAC in this building because some of the company's executives work on the weekend. All indoor air samples in the building showed concentrations below or within EPA's long-term goals. Subsequent weekday samples collected in September 2006 showed concentrations similar to the previous weekend samples. TCE concentrations in indoor air (average of 0.41 $\mu g/m^3$) were statistically higher than those in outdoor ambient air (0.19 $\mu g/m^3$) as shown in Table 4-18, but below the estimated background outdoor concentration.

Because of pathway samples results in other IDF rooms, Raytheon implemented mitigation measures in the two utility rooms in this building. The owner (Veritas, now Symantec) supplied Raytheon with as-built drawings of conduits connected to utility rooms and to underground utility vaults located along the perimeter of the campus. The drawings revealed that conduits in the utility rooms are directly connected to vaults outside the building (Figure

4-87). Examination of these vaults showed that they are approximately 10 to 14 feet deep and collect water. The depth to water near the deep vaults ranged between 10 and 16 feet in the time period when indoor air samples were collected.

On 8 July 2003, Raytheon collected air samples from utility vaults 1, 2, 3, 4, 6 and 7. The samples showed concentrations similar to those measured in utility rooms, indicating that the vaults are a possible source of the concentrations measured in the utility rooms. Subsequently, in August 2003, Raytheon sealed the conduits connecting the utility rooms D106 and D112 to the outside vaults.

After sealing the conduits, Raytheon collected confirmation samples in the utility rooms. In Switch Gear Room D112 (location 380PATH1D), where pathway samples were collected before the implementation of mitigation measures, TCE was measured at concentrations up to 5.1 $\mu g/m^3$. After sealing conduits in the room, TCE decreased significantly. TCE in the most recent confirmation sample was measured at 1.3 $\mu g/m^3$.

Raytheon also sealed conduits in the IDF Room D106 (380PATH2D) and collected samples there. No samples were collected before sealing the conduits in Room B104. Confirmation samples from the room showed low TCE concentrations. The most recent TCE concentration in the room was measured at 0.73 $\mu g/m^3$.

4.3.4.7. 350 Ellis Street, Building E

Building Description: Recreational use (cafeteria, dining area, gym), occupied, 1 floor, approximately 23,000 ft^2, slab-on-grade, passive venting system under slab, vapor barrier, conduits in certain utility rooms are connected to outside deep utility vaults.

Number of Discrete Samples Analyzed: 19 indoor (including 4 duplicates); 9 outdoor (including 2 duplicates); 11 pathway (including 3 duplicates).

Sample Locations: Indoor samples (350AMB1 collected in the cafeteria conference room; 350AMB2 collected in the food serving area; 350AMB3 collected in the kitchen; 350AMB4 collected in the gym). Outdoor samples (350HVAC1 and 350HVAC2 collected on the roof near HVAC inlets). Pathway samples (350PATH1 and 350PATH2 collected in an unoccupied IDF room and an unoccupied Switch Gear Room, respectively).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; 1,2-DCA; vinyl chloride; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; 1,2-DCB; 1,1-DCE; and trans-1,2-DCE), pathway samples (1,1-DCA; 1,2-DCA; vinyl chloride; 1,2-DCB; and trans-1,2-DCE).

Implemented Mitigation Measures: Raytheon sealed conduits in the IDF room (Room E132) and in the Switch Gear Room (E114).

Tables and Figures: Figure 4-26 shows the sample locations and posted TCE concentrations. Figure 4-69 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents

information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: Because of access limitations, the first four rounds of samples were collected on weekends. The HVAC system in Building E that serves the gym operates on the weekend. The system that serves the kitchen and dining room area does not operate on the weekend because the cafeteria is closed. All indoor air samples in the building showed concentrations below the long-term exposure goals. A subsequent weekday round was collected in September 2006. The weekday samples did not detect TCE, and TCE was consistent with outdoor ambient air and below the estimated background concentration.

Raytheon implemented mitigation measures in the two utility rooms in this building. The owner (Veritas, now Symantec) supplied Raytheon with as-built drawings of conduits connected to utility rooms and to underground utility vaults located along the perimeter of the campus. The drawings revealed that conduits in the utility rooms are connected directly to vaults outside the building (Figure 4-87). Examination of these vaults showed that they are approximately 10 to 14 feet deep and collect water. The depth to water near the deep vaults ranged between 10 and 16 feet in the time period when indoor air samples were collected.

On 8 July 2003, Raytheon collected air samples from utility vaults 1, 2, 3, 4, 6 and 7. The samples showed concentrations similar to those measured in utility rooms, indicating that the vaults are a possible source of the concentrations measured in the utility rooms. Subsequently, in August 2003, Raytheon sealed the conduits connecting utility rooms E132 and E114 to the outside vaults.

After sealing the conduits, Raytheon collected confirmation samples in the utility rooms. In the IDF Room E132, location 350PATH1, where pathway samples were collected before implementation of mitigation measures, TCE was measured at concentrations up to 48 $\mu g/m^3$. After sealing conduits in the room, TCE decreased to below EPA's interim action level and was not detected in the most recent confirmation sample.

Raytheon also sealed conduits in the Switch Gear Room E114 (350PATH2) and collected samples there. No samples were collected before sealing the conduits in Room B104. One of three confirmation samples (and its duplicate) from the room showed TCE at 3.7 $\mu g/m^3$. The most recent TCE concentration in the room was measured at 0.74 $\mu g/m^3$.

4.3.5 SMI Holding LLC

A total of 57 indoor, outdoor ambient and pathway samples were collected and analyzed from 2 buildings located at SMI's former facilities at the Site (Table 4-4). Sample locations were finalized on the pre-sampling walkthrough with EPA. Original sampling was conducted in spring and fall 2003 when two discreet sampling rounds were collected in each season at each of the selected locations, separated by a one-week period. Due to a detection of 1.7 $\mu g/m^3$ in fall 2003, one location was re-sampled in January 2004. Air samples were collected over a 24-hour period. Additional confirmation samples were subsequently collected after SMI sealed conduits in a utility room.

SMI sampled the following buildings:

- 455 E. Middlefield Road

- 487 E. Middlefield Road

Indoor air concentrations were all below the applicable comparison criteria. Specifically, TCE concentrations were all below EPA's interim action level of 2.7 $\mu g/m^3$. Regardless, SMI implemented interim mitigation measures by sealing some easily accessible conduits in the electrical room at 487 E. Middlefield Road to reduce the potential for vapor migration. Due to the potential to inadvertently interfere with building operations, the cover to the electrical panel was not removed and any conduits beneath this were not sealed.

The following sections detail the results in each of the buildings.

4.3.5.1. 455 East Middlefield Road

Building Description: Office use, occupied, 2 floors, approximately 68,000 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 21 indoor (including 5 duplicates); 9 outdoor; 4 pathway.

Sample Locations: Indoor samples (455-11131, 455-11066, 455-NOC and 455-SOC collected in office and open areas). Outdoor samples (455-AC-1, 455-AC-2 and 455-AC collected on the roof and at rooftop HVAC inlets). Pathway samples (455-P-1 collected in an unoccupied electrical room).

Sample Durations: 24 hours.

Samples Analyzed for: TCE, vinyl chloride and cis-1,2-DCE.

Analytes not Detected: Vinyl chloride and cis-1,2-DCE were not detected in any of the indoor, outdoor or pathway samples collected.

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-27 shows the sample locations and posted TCE concentrations. Figure 4-70 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. One sample showed a TCE concentration of 1.7 $\mu g/m^3$ at location 455-NOC. The results of this sample, however, could not be replicated in subsequent samples. TCE is consistent with outdoor ambient concentrations and below the estimated background concentration.

4.3.5.2. 487 East Middlefield Road

Building Description: Office use, occupied, 2 floors, approximately 45,000 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 18 indoor (including 2 duplicates); 4 outdoor; 4 pathway.

Sample Locations: Indoor samples (487-21002/-21004, 487-21032, 487-21067G/B and 487-21082/21083 collected in office and open areas). Outdoor samples (487-AC-1 collected on the roof at HVAC inlets). Pathway samples (487-P-1 collected in an unoccupied electrical room).

Sample Durations: 24 hours.

Samples Analyzed for: TCE, vinyl chloride and cis-1,2-DCE.

Analytes not Detected: Indoor and pathway samples (vinyl chloride and cis-1,2-DCE); outdoor samples (TCE).

Implemented Mitigation Measures: Some conduits in the electrical room were sealed.

Tables and Figures: Figure 4-28 shows the sample locations and posted TCE concentrations. Figure 4-71 presents a plot of TCE concentrations. Tables 4-5 and 4-6 provide summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: Samples showed concentrations below the long-term exposure goals. TCE in indoor air is consistent with outdoor ambient air and below the estimated background concentration. Nevertheless, in September 2003 SMI sealed conduits in the electrical room to reduce the potential for vapor migration.

4.3.6 Vishay GSI, Inc. and SUMCO USA Corporation

A total of 32 indoor, outdoor ambient and pathway samples were collected and analyzed from one building located at 425 National Avenue (Table 4-4). Locations were finalized on the pre-sampling walkthrough with EPA. Samples were collected in May and September 2003. In addition, a pathway analysis was performed in September 2003.

The building at 425 National Avenue is unfinished, unoccupied and does not have an HVAC system yet.

4.3.6.1. 425 National Avenue

Building Description: Planned for office use, unfinished, unoccupied, 2 floors, approximately 35,000 ft^2, slab-on-grade, 10-mil moisture barrier, building is closed up, air exchange rate is 0.033 hr^{-1}.

Number of Discrete Samples Analyzed: 12 indoor (including 1 duplicate); 4 outdoor; 16 pathway.

Sample Locations: Indoor samples (1A, 1B, A1, A2 and A3 collected in the open space on the first floor, 2A and 2B collected in the open space on the second floor). Outdoor samples (OA Front collected north of the building, OA Roof collected on the roof of the building). Pathway samples (I1, I2, E1, E2, B1-B4 and R1-R8 collected near potential vapor entry pathways).

Sample Durations: 24 hours and 8 hours.

Samples Analyzed for: 1,1-DCA, PCE; TCE; vinyl chloride; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA.

Analytes not Detected: Indoor samples (vinyl chloride; trans-1,2-DCE), outdoor samples (1,1-DCA; vinyl chloride; 1,1-DCE; trans-1,2-DCE), pathway samples (1,1-DCA; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE).

Implemented Mitigation Measures: Sealed elevator shaft.

Tables and Figures: Figure 4-29 shows the sample locations and posted TCE concentrations. Figure 4-72 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provide results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: The building is a two-story commercial structure, constructed in 2001. Since its construction, the building has remained vacant and final improvements to the building's interior have not been completed. The building has no operating HVAC system, no carpeting, no cubicles/offices, no office furniture, and few separate rooms; it generally resembles the interior of a vacant warehouse. An elevator connects the first and second floors.

The first two sampling rounds were collected in May 2003. Indoor sampling locations were set at approximate breathing zone heights. Two of the four interior samples were collected from the first floor and two were collected from the second floor. Because an HVAC system has yet to be installed in the new building, the two outdoor ambient samples were collected from the roof and at ground level near the front entrance of the building.

Because an HVAC system has not been installed in the building, a tracer gas study indicated a very low air exchange of 0.033 air changes per hour, which is not representative of an occupied office building with an HVAC system. TCE was detected in all indoor air samples at concentrations above the interim action level of 2.7 $\mu g/m^3$. Other analytes were below the long-term exposure goals.

Subsequently, Vishay/SUMCO performed a pathway sampling analysis in September 2003 by collecting samples from 19 locations, 16 of which are near potential vapor entry features (e.g., elevator shaft, floor drains). The samples showed TCE above the interim action level. Vishay/SUMCO sealed the elevator shaft in the building in April 2004. Vishay/SUMCO will collect additional samples after the HVAC system is installed and operational in the building.

4.3.7 NASA

Starting in June 2003, NASA began an air sampling program in which samples were collected from six buildings (15, 16, 17, 20, N210 and N243) and from outdoor ambient and background locations. A combination of 24-hour and 8-hour samples was collected. Subsequently, NASA collected samples from three additional buildings (N211, N239A and N259).

NASA conducted walkthroughs in the buildings to select sample locations. Indoor air samples were collected as frequently as daily from some buildings. Approximately 1,205 air samples were collected and analyzed. NASA analyzed outdoor ambient samples in three locations: A17, A210 and A243, in addition to a background location at B258. Figure 4-88 shows the location of the buildings sampled by NASA and the location of the outdoor ambient air samples, as well as the location of NASA's background sample, B258.

The following sections detail the results in each of the buildings. In an analysis that NASA performed comparing 8-hr sequential samples in Buildings 15 and 17 with 24-hr samples, NASA found that 24-hr samples are suitable for evaluating long-term exposures. Consequently, the discussion below does not include the 8-hr sequential samples. The discussion also does not include grab samples and the Trace Atmospheric Gas Analyzer (TAGA) samples. These results, however, are documented in Appendix B and a discussion can be found in available NASA documents (NASA 2005c). For buildings using a common outdoor ambient location (e.g., NASA chose A17 as the outdoor location for Buildings 15, 16, 17 and 20), the evaluation below uses the data from that outdoor ambient location that correspond to the range of dates in which indoor air samples were collected.

4.3.7.1. Building 15

Building Description: Office use, approximately one-third contains mechanical equipment, 1 floor, occupied, slab-on-grade, approximately 17,500 ft^2, mechanical ventilation, after mid May 2004 increased to 100% outside make-up air.

Number of Discrete Samples Analyzed: 217 indoor (including 24 duplicates) and 117 outdoor (from location A17, including 15 duplicates).

Sample Locations: Indoor samples (15-1 and 15-2 collected in short corridors in the main and west wings; 15-3, in the main corridor, was sampled after mitigation measures were implemented). Outdoor samples (A17 collected in front of Building 17).

Sample Durations: 8 and 24 hours

Samples Analyzed for: 1,1-DCA; 1,2-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1,1-TCA. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not Detected: None.

Implemented Mitigation Measures: NASA adjusted the HVAC system in May 2003 to increase the make-up air supplied into the building and performed a study to evaluate the relationship between indoor air concentrations and percent make-up air.

Tables and Figures: Figure 4-30 shows the sample locations. Figure 4-73 presents a plot of TCE concentrations. Because of the numerous samples, TCE concentrations are not posted on Figure 4-30. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air

samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and type of construction.

Evaluation of Sampling Results: In an analysis that NASA performed comparing 8-hr sequential samples with 24-hr samples, NASA found that 24-hr samples are suitable for evaluating long-term exposures. Outdoor ambient and background outdoor concentrations exceeded indoor air concentrations during certain sampling periods.

The mitigation measures implemented in Building 15 reduced the indoor air concentrations to below the long-term exposure goals. For example, before mitigation TCE was detected in 169 of 170 indoor samples with concentrations ranging from 0.23 to 4.9 $\mu g/m^3$. After mitigation TCE was detected in 47 of 47 indoor samples with concentrations ranging from 0.35 to 1.2 $\mu g/m^3$, below EPA's interim action level of 2.7 $\mu g/m^3$. After mitigation, TCE concentrations in indoor air (average of 0.35 $\mu g/m^3$) were statistically higher than those in outdoor ambient air (0.27 $\mu g/m^3$) as shown in Table 4-18, but the two averages seem to be similar. After mitigation, indoor air concentrations were below the estimated background outdoor concentrations.

During the confirmation sampling, NASA attempted to change the percent make-up air in the building in ten percent increments from 30% to 100% during the period when the confirmation samples were collected. However, when NASA adjusted the HVAC controls to increase the percent make-up air, the speed of the fan in the HVAC unit automatically lowered, keeping the air exchange rate constant. Consequently, it was not possible to obtain a relationship between concentrations and make-up air because the make-up air remained virtually constant. NASA did not realize that this had occurred until after the sample data were analyzed.

4.3.7.2. Building 16

Building Description: Office use, a wood shop and a machine shop, 1 floor, occupied, slab-on-grade, approximately 13,500 ft^2, no mechanical ventilation.

Number of Discrete Samples Analyzed: 57 indoor (including 9 duplicates) and 48 outdoor (from location A17, including 8 duplicates).

Sample Locations: Indoor samples (16-1 collected in the front office; 16-2 collected in an office space in the back of the building. Outdoor samples (A17 collected in front of Building 17).

Sample Durations: 24 hours.

Samples Analyzed for: 1,1-DCA; 1,2-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1,1-TCA. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not detected: 1,2-DCB in indoor air.

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-31 shows the sample locations. Because of the large number of samples, TCE concentrations are not posted on Figure 4-31. Figure 4-74 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-9 presents information on the ventilation system in the building.

Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: TCE was detected in 57 of 57 indoor samples with concentrations ranging from 0.082 to 15 $\mu g/m^3$ and detected in 47 of 48 outdoor ambient samples with concentrations ranging from 0.04 to 6.4 $\mu g/m^3$. The outdoor ambient TCE concentration of 6.4 $\mu g/m^3$ has not been confirmed, but other concentrations were found to be greater than 2.7 $\mu g/m^3$ in the outdoor ambient air. The Inficon HAPSITE was used to collect additional samples in February 2004 and identify potential pathways in Building 16 (NASA 2005a).

Starting in May 2004, TCE concentrations dropped significantly at both sample locations to below 2.7 $\mu g/m^3$, when doors were opened and fans were added to increase in natural ventilation. NASA is currently working on plans to increase the air exchange rate into the building.

4.3.7.3. Building 17

Building Description: Office use, 2 floors with a basement, only 1st floor is occupied. Basement and second floor unoccupied due to high renovation cost required to meet building code, approximately 20,000 ft^2, no mechanical ventilation.

Number of Discrete Samples Analyzed: 190 indoor (including 34 duplicates) and 94 outdoor (from location A17, including 13 duplicates).

Sample Locations: Indoor samples (17-1 collected on the first floor; 17-2 collected in the unoccupied basement). Outdoor samples (A17 collected in front of Building 17).

Sample Durations: 24 hours and 8 hrs (the 8 hr samples are not used in the discussion below).

Samples Analyzed for: 1,1-DCA; 1,2-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1,1-TCA. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not detected: 1,2-DCB in outdoor air.

Implemented Mitigation Measures: None.

Tables and Figures: Figures 4-32 and 4-33 show the locations of the samples. Because of the large number of samples, TCE concentrations are not posted on these two figures. Figure 4-75 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-9 presents information on the ventilation system in the building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: In an analysis that NASA performed comparing 8-hr sequential samples with 24-hr samples, NASA found that 24-hr samples are suitable for evaluating long-term exposures. Outdoor ambient and background concentrations exceeded indoor air concentrations during certain sampling periods.

TCE was detected in 96 of 96 indoor samples in the basement with concentrations ranging from 0.061 to 3.1 $\mu g/m^3$ and in 94 of 94 indoor samples on the first floor with concentrations ranging from 0.05 to 2.2 $\mu g/m^3$. TCE was also detected in 92 of 94 outdoor ambient samples with concentrations ranging from 0.07 to 1.5 $\mu g/m^3$ during the same sampling period.

NASA calculated a slope-intercept to compare outdoor ambient and background outdoor concentrations to indoor air concentrations. The calculations revealed that the indoor air concentrations in Building 17 are related to outdoor ambient and background concentrations and that the effect of outdoor and background outdoor concentration on the indoor air is greater than the effect of vapor intrusion.

4.3.7.4. Building 20

Building Description: Unoccupied, 2 floors with a small basement for mechanical equipment, a crawlspace underlies the rest of the building, approximately 36,500 ft^2, no mechanical ventilation.

Number of Discrete Samples Analyzed: 55 indoor (including 6 duplicates), 51 outdoor (from location A17, including 9 duplicates), 3 pathways from crawlspace.

Sample Locations: Indoor samples (20-1 collected in central structure of the building on first floor, 20-2 collected in a corridor on the first floor in the west wing. Outdoor samples (A17 collected in front of Building 17). Pathway samples (20-3 collected under the building in the crawlspace).

Sample Durations: 24 hours.

Samples Analyzed for: 1,1-DCA; 1,2-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1,1-TCA. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not detected: 1,2-DCB in indoor air.

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-34 shows the sample locations and posted TCE concentrations. Figure 4-76 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Building 20 is unoccupied and does not have a mechanical ventilation system. It is constructed on foundation pillars and the main floor of the building is raised above the ground surface with a crawlspace in between. TCE was detected in 55 of 55 indoor samples with concentrations ranging from 0.19 to 9.7 $\mu g/m^3$ and in 50 of 51 outdoor samples with concentrations ranging from 0.04 to 6.4 $\mu g/m^3$. NASA collected three crawlspace samples, which showed TCE concentrations of up to 35 $\mu g/m^3$.

The Inficon HAPSITE was used to collect additional samples in February 2004 and identify potential pathways in Building 20. These samples did not identify any preferential pathways.

NASA calculated a slope intercept to compare outdoor ambient and background concentrations to indoor air concentrations. The calculations revealed that in Building 20 the contribution of the outdoor ambient air concentrations appears small relative to the vapor intrusion pathway.

4.3.7.5. Building N210

Building Description: Office Space, building within a hangar, occupied, 2 floors, a pit is within the hangar but outside the interior building structure, false floor underlies a portion of the building, approximately 50,000 ft^2.

Number of Discrete Samples Analyzed: 86 indoor (including 12 duplicates), 21 outdoor (from location A-210, including 1 duplicate), 20 pathways (including 2 duplicates).

Sample Locations: Indoor samples (210-1, 210-7 and 210-8 collected in western corridor between the interior building and the offices in the hangar structure; 210-3 collected in the western corridor between the interior building and the offices in the hangar structure; 210-5 collected in an office area in the hangar structure; 210-2, 210-6, 210-9, 210-14, 210-15 and 210-16 collected in office areas in the interior building; 210-12 collected in an office area on the second floor of the hangar structure). Outdoor samples (A210 collected outside the building). Pathway Samples (210-4 collected in the pit; 210-10 collected from inside display pedestal in stairwell; 210-11 and 210-17 collected from beneath the raised floor).

Sample Durations: 24 hours.

Samples Analyzed for: 1,1-DCA; 1,2-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; 1,1,1-TCA. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not Detected: Indoor air (vinyl chloride; 1,2-DCB; 1,1-DCE), outdoor air (1,2-DCB; 1,1-DCE; trans-1,2-DCE), pathway samples (1,2-DCA; vinyl chloride).

Implemented Mitigation Measures: The building has mechanical ventilation. Air was supplied through ducts into the sub-floor plenum and the air was then pushed into the interior of the building through open grates in the floor. Because this configuration enhanced vapor migration into the building, the duct system was rearranged so that the air is supplied through a network from the ceiling. All grates in the sub-floor were replaced with solid floor tiles and all protrusions through the existing floor tiles were sealed.

Tables and Figures: Figures 4-35 and 4-36 shows the sample locations. Because of the numerous samples, TCE concentrations are not posted on these two figures. Figure 4-77 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and

outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: TCE concentrations in indoor air ranged between 0.22 and 176 $\mu g/m^3$, with the highest concentration measured at location 210-1 in the western corridor (a duplicate of this maximum detection showed 41 $\mu g/m^3$). Lower TCE concentrations were measured in the interior building, but some of these concentrations were higher than the interim action level. In May 2005 the EPA Trace Atmospheric Gas Analyzer (TAGA) van was used to evaluate additional sample locations. The TAGA data were then used to select sample locations for the July and September sampling events. The TAGA results for TCE are consistent with the results obtained by SUMMA canister sampling and TO-15 SIM analysis.

Based upon these sampling results, the HVAC system was modified in January 2006 to reduce TCE concentrations in the indoor air breathing zone. NASA found that although the building has mechanical ventilation, air was supplied through ducts into the sub-floor plenum and then pushed into the interior of the building through open grates in the floor. Because this configuration enhanced vapor migration into the building, the duct system was rearranged so that the air is supplied through a network of ducts from the ceiling. All grates in the sub floor were removed and replaced with solid tile. In addition, NASA installed an exhaust system for the sub-slab plenum to exert a negative pressure there.

In January and February 2006 NASA collected 110 indoor air, pathway and outdoor ambient samples from 21 locations on the first, second and third floors to confirm the effectiveness of these HVAC modifications. The confirmation samples showed that the modifications to the HVAC system reduced indoor air concentrations attributed to vapor intrusion to below long-term exposure goals (NASA 2007).

4.3.7.6. Building N211

Building Description: Office space, hangar, occupied, 3 floors, approximately 135,000 ft^2.

Number of Discrete Samples Analyzed: 13 indoor (including 1 duplicates), 4 outdoor (from location A-210).

Sample Locations: Indoor samples (211-1, 211-2 and 211-5 collected in office spaces on the first floor; 211-3 collected in a short corridor on the first floor; 211-4 collected in the restroom on the first floor; 211-6 collected in an office on the second floor). Outdoor samples (A210 collected outside building N210).

Sample Durations: 24 hours.

Samples Analyzed for: 1,2-DCA; PCE; TCE; vinyl chloride; and cis-1,2-DCE. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not Detected: Indoor air (1,2-DCA; vinyl chloride; cis-1,2-DCE), outdoor air (1,2-DCA; cis-1,2-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figures 4-37 and 4-38 show the sample locations and posted TCE concentrations. Figure 4-78 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the analyzed MEW chemicals of concerns. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: In May 2005, the TAGA was used to evaluate sample locations. Based upon the TAGA results, in July 2005, NASA collected indoor samples from six locations. These samples showed concentrations below the long-term exposure goals. TCE was consistent with outdoor ambient concentrations and below the estimated background concentration.

4.3.7.7. Building N243

Building Description: Office space with a basement, occupied, 2 floors, approximately 124,000 ft^2.

Number of Discrete Samples Analyzed: 36 indoor (including 6 duplicates), 8 outdoor (from location A-243), 8 pathway (including 1 duplicate).

Sample Locations: Indoor samples (243-2 and 243-4 collected in the basement; 243-3 collected on the first floor). Outdoor samples (A243 collected outside building N243). Pathway samples (243-1 collected below the floor).

Sample Durations: 24 hours and 8 hours (the 8 hr samples are not used in the discussion below).

Samples Analyzed for: 1,2-DCA; PCE; TCE; vinyl chloride; and cis-1,2-DCE. NASA also analyzed for other constituents that are not MEW chemicals of concern: 1,1,2-TCA; 1,3-DCB; 1,4-DCB, 1,4-dioxane; benzene; chlorobenzene, chloroethane; ethylbenzene; m,p-xylene; methyl chloride; o-xylene; and toluene. The non-MEW COCs are not discussed in this document.

Analytes not Detected: Indoor air (1,1-DCA; 1,2-DCB; cis-1,2-DCE), outdoor air (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE).

Implemented Mitigation Measures: None.

Tables and Figures: Figures 4-39 and 4-40 shows the sample locations and posted TCE concentrations. Figure 4-79 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Samples were collected in the basement and in the first floor. Concentrations are below the long-term exposure goals. TCE was consistent with outdoor ambient concentrations and below the estimated background outdoor concentration.

4.3.7.8. Building N239A

Building Description: Office space, 1 floor, occupied, approximately 19,000 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 7 indoor (including 1 duplicate); 4 outdoor (from sample N210); 2 pathway.

Sample Locations: Indoor samples (239A-2 collected in a corridor; 239A-3 and 239A-4 collected from offices and open areas). The associated outdoor samples (A210) were collected in the vicinity of the west side of building N210. Pathway samples (239A-1 collected beneath the floor at the bottom of the stairs).

Sample Durations: 24 hours.

Samples Analyzed for: 1,2-DCA; PCE; TCE; vinyl chloride; cis-1,2-DCE; 1,4-dioxane; benzene; m,p-xylene; methylene chloride; and toluene.

Analytes not Detected: Indoor samples (vinyl chloride; cis-1,2-DCE; and 1,4-dioxane), outdoor samples (1,2-DCA; cis-1,2-DCE; and 1,4-dioxane), pathway samples (1,2-DCA; PCE; vinyl chloride; cis-1,2-DCE; and 1,4-dioxane).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-41 shows the sample locations and posted TCE concentrations. Figure 4-80 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient concentrations and below the estimated background outdoor concentration. The samples collected in the building by EPA's TAGA showed TCE concentrations that are generally consistent with the results obtained by SUMMA canister sampling and TO-15 SIM analysis.

4.3.7.9. Building N259

Building Description: Office space, occupied, 1 floor, approximately 5,100 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 5 indoor (including 1 duplicate); 3 outdoor.

Sample Locations: Indoor samples (259-1 and 259-2 collected from offices and open areas). The associated outdoor samples (A210) were collected in the vicinity of the west side of building N210.

Sample Durations: 24 hours.

Samples Analyzed for: 1,2-DCA; PCE; TCE; vinyl chloride; cis-1,2-DCE; 1,4-dioxane; benzene; m,p-xylene; methylene chloride; and toluene.

Analytes not Detected: Indoor samples (1,2-DCA; vinyl chloride; cis-1,2-DCE; and 1,4-dioxane); outdoor samples (1,2-DCA; cis-1,2-DCE; and 1,4-dioxane).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-42 shows the sample locations and posted TCE concentrations. Figure 4-81 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: In May 2005, the EPA TAGA van was used to evaluate sample locations. Based upon the TAGA results, five indoor air samples were collected from two locations in July 2005. Detected concentrations were below the long-term exposure goals. TCE was consistent with outdoor ambient concentrations and below the estimated background concentration. The TAGA results for TCE are generally consistent with the results obtained by SUMMA canister sampling and TO-15 SIM analysis.

4.3.7.10. Other NASA Buildings

In 2000, NASA conducted one round of air sampling in several buildings as part of its evaluation of the NASA Research Park. These samples were collected before initiation of the remedial investigation work and before submittal and EPA approval of the air investigation work plan in 2003. Therefore, these results are not included in the analyses provided in this document.

The buildings sampled in 2000 included Hangar 1 and Buildings 6, 21, 22, 26, 111, 148, 156, 269 and 566. Buildings 26 and 269 are outside the TCE plume boundaries and were sampled as control buildings. In this 2000 sampling event, NASA found TCE concentrations between non-detect and 1.8 $\mu g/m^3$. Additional discussions on these buildings are included in NASA's Human Health Risk Assessment (MACTEC 2003c).

4.3.8 Regional Program

In addition to the facilities sampled by each of the potentially responsible parties (PRPs) listed above, the MEW Companies collected samples from five buildings not located on former PRP properties. The five buildings sampled are located at the following properties:

- 555 Ellis Street
- 460 E. Middlefield Road
- 645 National Avenue

- 660 National Avenue
- 670 National Avenue

These buildings were sampled at the request of the owners to facilitate pending real estate transactions.

4.3.8.1. 555 Ellis Street

Building Description: Office use, unoccupied, 1 floor, approximately 29,550 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 4 indoor; 1 outdoor; 3 pathway (including 1 duplicate).

Sample Locations: Indoor samples (555AMB1, 555AMB2, 555AMB3 and 555AMB4 collected from offices and open areas). Outdoor sample (555HVAC1 collected on the roof at HVAC inlet). Pathway samples (555PATH1 collected in the restroom, 555PATH2 collected in the electrical room).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and 1,1,1-TCA), pathway samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: Before sampling, two HVAC units were retrofitted to add dampers and increase the outdoor make-up air supply into the building as a precautionary measure. After retrofitting, the air exchange rate was measured at 1.2 hr^{-1}.

Tables and Figures: A building layout is not available. Figure 4-82 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Detected concentrations in indoor air were below the long-term exposure goals. TCE was consistent with outdoor ambient concentrations and below the estimated background concentration.

4.3.8.2. 460 E. Middlefield Road

Building Description: Office use, unoccupied, 1 floor, approximately 15,600 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 12 indoor (including 4 duplicates); 2 outdoor; 2 pathway.

Sample Locations: Indoor samples (460AMB1 collected in an office; 460AMB2, 460AMB3 and 460AMB4 collected from open office areas). Outdoor samples (460HVAC1 collected on the roof at an HVAC inlet). Pathway samples (460PATH1 collected in a restroom).

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and 1,1,1-TCA), pathway samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE).

Implemented Mitigation Measures: Dampers were added to certain HVAC systems to increase the supply of outdoor make-up air before sampling was performed.

Tables and Figures: Figure 4-43 shows the sample locations and posted TCE concentrations. Figure 4-83 presents a plot of TCE concentrations. Tables 4-5 and 4-6 show summaries of TCE results for indoor, outdoor and pathway samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-8 shows concentrations of the MEW chemicals of concern analyzed in pathway samples. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Detected concentrations were the long-term exposure goals. TCE was consistent with outdoor ambient concentrations and below the estimated background outdoor concentration.

4.3.8.3. 645 National Avenue

Building Description: Office/warehouse use, northern portion unoccupied, 1 floor, approximately 24,000 ft^2, slab-on-grade.

Number of Discrete Samples Analyzed: 10 indoor (including 5 duplicates); 1 outdoor.

Sample Locations: Indoor samples (645AMB1 collected in the unoccupied portion of the building in an open area; 645AMB2 and 645AMB5 collected in the unoccupied portion of the building in the warehouse; 645AMB3 collected in the occupied portion of the building in the warehouse; and 645AMB4 was collected in the occupied office space). The outdoor sample (645HVAC1) was collected on the roof at an HVAC inlet.

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (chloroform, 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and 1,1,1-TCA).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-44 shows the sample locations and posted TCE concentrations. Figure 4-84 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Detected concentrations were below the long-term exposure goals. One sample showed TCE of 2.0 $\mu g/m^3$. Its duplicate showed 1.2 $\mu g/m^3$. With the exception of that one sample, TCE was generally consistent with outdoor ambient air and below the estimated background concentration.

4.3.8.4. 660 National Avenue

Building Description: Office use, occupied, 1 floor, approximately 10,350 ft^2, slab-on-grade. The building was purchased in 2007, is presently unoccupied, and is scheduled for demolition in 2008.

Number of Discrete Samples Analyzed: 20 indoor (including 5 duplicates); 3 outdoor.

Sample Locations: Indoor samples (660AMB1, 660AMB2, 660AMB3 and 660AMB4 collected office and open areas, 660AMB5 collected in storage room). Outdoor samples (660HVAC1) collected on the roof at an HVAC inlet.

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; 1,2-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE), outdoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE).

Implemented Mitigation Measures: HVAC system was refurbished to allow for make-up air into the building.

Tables and Figures: Figure 4-45 shows the sample locations and posted TCE concentrations. Figure 4-85 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: Two rounds of samples were collected in October 2003. TCE at concentrations above EPA's interim action level was found in certain locations in the building and in an occupied storage room. At the time, the building owner had pending plans to refurbish the existing ventilation system to better ventilate all areas of the building, including the storage room, and provide outdoor make-up air. After the ventilation system was refurbished, confirmation samples were collected at all six previously sampled locations in May 2004. The confirmation samples had non-detectable TCE concentrations and all other analytes were below the long-term exposure goals. In addition, the confirmation samples showed that TCE was consistent with outdoor ambient concentrations and below the estimated background concentration.

4.3.8.5. 670 National Avenue

Building Description: Office/warehouse use, with unoccupied testing areas, 1 floor and a partial second floor over the eastern portion of the building, approximately 20,000 ft^2, slab-on-grade. The building was purchased in 2007, is presently unoccupied, and is scheduled for demolition in 2008.

Number of Discrete Samples Analyzed: 7 indoor (including 4 duplicates); 1 outdoor.

Sample Locations: Indoor samples (670AMB1, 670AMB2, 670AMB3 and 670AMB4) were collected from office, open and storage areas. The outdoor sample (670HVAC1) was collected on the roof at an HVAC inlet.

Sample Durations: 10 hours.

Samples Analyzed for: chloroform; 1,1-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA. EPA's co-located samples were also analyzed for 1,2-DCA.

Analytes not Detected: Indoor samples (1,1-DCA; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; and trans-1,2-DCE), outdoor samples (1,1-DCA; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and 1,1,1-TCA).

Implemented Mitigation Measures: None.

Tables and Figures: Figure 4-46 shows the sample locations and posted TCE concentrations. Figure 4-86 presents a plot of TCE concentrations. Table 4-5 shows a summary of TCE results for indoor and outdoor samples. Table 4-7 shows indoor and outdoor concentrations for the MEW chemicals of concerns analyzed. Table 4-9 presents information on the ventilation system in the building. Table 4-16 shows a comparison of maximum indoor air TCE concentration detected to background. Table 4-18 is a statistical comparison of indoor air and outdoor air concentrations for each building. Appendix B provides results of all air samples collected at the Site and additional physical information on each of the buildings, such as the footprint, approximate depth to water, approximate groundwater concentrations and the type of construction.

Evaluation of Sampling Results: A number of samples showed concentrations above the TCE interim action level of 2.7 $\mu g/m^3$, and an analysis of the HVAC system revealed that certain HVAC units were not operating. Recommendations to improve ventilation of the conditioned space were developed and provided to the owner. Since then, the property had been sold, and subsequently unoccupied. The building is scheduled for demolition in 2008.

4.3.9 425-495 N. Whisman Road

The former Air Products facilities have been redeveloped into a new commercial complex at 425 through 495 N. Whisman Road. The complex comprises eight buildings. The developer installed a sub-slab pressurization (SSP) system as a precautionary measure to address the potential for vapor intrusion in the buildings. Each SSP includes a blower that pushes outdoor ambient air into a gravel layer under the concrete floor slab of each building (EKI 2006). The injected air travels horizontally and exits from vents installed on two sides of the building perimeter. Some of the air may flow downwards in the subsurface formation away from the building. The action of pushing air into the gravel layer beneath the building creates a slight positive pressure in the void space, which would prevent any VOCs in soil gas from migrating upward into the building.

After construction, sub-slab and outdoor ambient air samples were collected for each building while the SSP system was operating. PCE and TCE in the sub-slab were found to be at or near outdoor ambient air concentrations and within or below EPA's long-term goals.

4.3.10 Other Commercial Buildings

A total of 66 and 114 commercial buildings are in the Vapor Intrusion Study Area in the MEW Area south of U.S. Highway 101 and on Moffett Field, respectively.

4.3.10.1. Commercial Buildings South of U.S. Highway 101

There are a total of 66 commercial buildings within the 5 µg/L "A" aquifer TCE plume boundary south of U.S. Highway 101 at the Site (Figure 4-89), of which 38 buildings have been sampled. In the spring and fall of 2003, the MEW Companies sampled a total of 25 commercial buildings that overlie properties formerly occupied by the Companies. Since then, the Companies sampled five additional commercial buildings located on properties not formerly occupied by them. In addition, sub-slab samples were collected by the developer of the 8 commercial buildings at 425-495 North Whisman Road to demonstrate the effectiveness of the sub-slab pressurization system installed there.

For the remaining 28 buildings (Figure 4-90),

- The Companies negotiated access with the owners/tenants of 20 buildings and conducted walkthroughs with EPA to collect building information such as structure, use and layout as well as information on the ventilation systems (Table 4-10).

- One building provided access, but a walkthrough has not been conducted because the building has not been finished and is unoccupied.

- Owners of two buildings denied access. Contact information for these buildings has been provided to EPA for further follow-up.

- Owners of five buildings did not respond to several mailing and telephone calls requesting access for a walkthrough. Contact information for these buildings has been provided to EPA for further follow-up.

4.3.10.2. Commercial Buildings North of U.S. Highway 101

Of the estimated 114 commercial buildings in the Vapor Intrusion Study Area north of U.S. Highway 101, 36 are in what is referred to as the Navy WATS area, where the Navy is addressing impacted groundwater by operating a groundwater extraction and treatment system. In addition, 20 buildings are in areas over suspected Navy sources that have not been investigated (Table 4-11 and Figure 4-91).

The Navy is operating a groundwater extraction and treatment system in the WATS Area, but it is not known if the Navy will implement the findings of the Supplemental RI/FS north of U.S. Highway 101 in that area. Also, several Navy potential source areas have been inferred from available groundwater concentrations and from past Navy operations in buildings (Figure 4-91). With the exception of recent investigation in the former Building 88 Area, which the Navy confirmed to be a source, the Navy has not collected soil and groundwater data to evaluate the absence or presence of sources in these areas.

The Navy has declined to participate in this RI/FS process. It is not known if the Navy will implement the findings of the vapor intrusion FS and Proposed Plan in its area of responsibility.

NASA plans to redevelop a 213-acre parcel of Moffett Field into NASA's Research Park (NRP), which will include research and educational facilities. The NRP overlies a large portion of the shallow plume. Of the estimated 114 buildings over the Vapor Intrusion Study Area, information provided by NASA reveals the following (Figure 4-92):

- 37 buildings are unoccupied and will be demolished;
- 2 buildings are unoccupied, are planned to be demolished, but may be leased before being demolished;
- 30 buildings are currently occupied, but are planned to be demolished;
- 6 buildings are unoccupied, but are planned for lease;
- 34 buildings are occupied and will remain in use;
- 4 buildings are unoccupied, but future use is unknown; and
- 2 buildings are occupied, but future use is unknown.

NASA's Environmental Issues Management Plan (EKI 2005) requires protective measures against potential vapor intrusion into buildings to be constructed in the NRP in areas where TCE concentrations in groundwater are higher than 5 µg/L. The primary protective measures include either:

- Active sub-slab depressurization;
- Continuous interior positive pressure ventilation;
- Ground level open air or mechanically ventilated parking garages beneath occupied spaces; or
- Sub-membrane depressurization for buildings constructed over crawl space.

4.4 Residential Sampling West of Whisman Road

Starting in 2004, EPA has sampled 16 residences (Residences 1 to 16) and has been communicating the results to those residents. The results have also been reported in Northeast Mountain View Advisory Council citizen advisory group meetings.

The sampled residences are located in a residential area west of Whisman Road above the shallow plume, an area defined by the 5 µg/L TCE contour line (Figure 4-93) plus 100 feet. A total of 210 samples have been collected and analyzed from 16 residences. The residences sampled include different types of building construction (sub-slab, crawlspace, cellar) and provide a good spatial distribution.

Residential sampling showed a house (Residence 4) with an unoccupied earthen cellar that exceeded the residential interim action level of 1 µg/m^3 for TCE in the cellar. A ventilation system was installed in the cellar, reducing the concentrations in the home to below the interim action level. TCE was also detected in a few samples in three other homes at concentrations higher than the interim action level, but no remedial actions have been warranted because these concentrations were not confirmed (Residences 8 and 13), or because indoor sources were identified (Residence 8). Each of these residences is discussed in the subsections below.

EPA performed the sampling work in the residential area. After EPA initially sampled Residence 4, the MEW Companies installed a ventilation system in the earthen cellar and collected confirmation samples in the house and the cellar. EPA and the MEW Companies collected a total of 81 indoor samples (including 12 duplicates), 20 outdoor ambient samples (including 1 duplicate) and 58 pathway samples (including 10 duplicates) from the 16 residences. The indoor samples were collected in the living areas of the house (e.g., family room, bedroom). The outdoor ambient samples were collected outside the house. The pathway samples were collected in potential pathways such as near kitchen sinks, in cellars under the house, in the crawlspace, etc. Samples were collected over a 24 hour period and were analyzed for chloroform; 1,1-DCA; 1,2-DCA; PCE; TCE; vinyl chloride; 1,2-DCB; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-TCA (EPA's samples were not analyzed for trans-1,2-DCE).

Figures 4-94 to 4-114 present plots of the TCE concentrations. Tables 4-12 and 4-13 present analyses of indoor, outdoor and pathway results for analyzed chemicals. Appendix B provides the results of all air samples collected at the Site.

4.4.1 Residence 4

In March 2003, EPA collected two rounds of samples in Residence 4. EPA collected samples in the earthen cellar, in two bedrooms, and at an outdoor ambient location in the backyard. Samples showed TCE concentrations in the earthen cellar above the interim action level of 1 µg/m^3. After receipt of the data from the initial sampling, the MEW Companies installed an exhaust system in the basement to ventilate the cellar. This system included the following components:

- One low-noise in-line centrifugal duct fan was furnished and installed
- Galvanized sheet metal ductwork was fabricated and installed with exhaust inlets 18 inches above grade with bird screen-mesh openings at each of the three crawlspace locations
- Exposed spiral ductwork was installed at the structure exterior with an above-roof rain cap

- Two new outside/make-up air crawlspace ventilation openings were fabricated and installed
- A 120v/1p electrical connection was installed with a 7-day time clock mounted on a crawlspace column
- An air balance of the new fan and exhaust ductwork was conducted following startup of the new exhaust fan

The system started operating on 7 July 2004. The timer was set so that the system would operate between 9:00AM and 4:30PM each day. Confirmation samples were collected in the home and in the backyard on 21 July 2004, 14 days after startup of the system. The results of the 21 July 2004 samples showed TCE above the interim action level of 1 $\mu g/m^3$. The timer was subsequently set to increase the hours of operation to a 24-hour basis beginning on 10 August 2004. Subsequent confirmation samples were collected on 16 August and the results showed concentrations in the house below the long-term exposure goals. In the cellar, the TCE concentrations were slightly higher than the interim action level.

On 11 October 2004, the ventilation system was modified to include forced make-up air from the outdoors into the cellar. The system's hours of operation were also reduced from 24-hours per day to approximately 12-hours per day. The work completed on 11 October consisted of:

- The installation of a low-noise in-line centrifugal duct fan suspended from the sub-floor
- Fabrication and installation of galvanized sheet metal ductwork and fittings, complete with points of connection at one existing crawlspace vent
- Fabrication and installation of galvanized sheet metal distribution and inlet plenums with flex connectors
- Wiring a 120v/1p electrical connection to the existing 7-day time clock
- Startup of the new exhaust fan

Air balancing of the new fan and outside air diffusers was conducted on 19 November 2004. An additional round of confirmation sampling was collected on 27 October 2004. All October 2004 results showed concentrations below the long-term exposure goals. TCE was measured below the interim action level of 1 $\mu g/m^3$.

Subsequent rounds of confirmation samples have also shown that TCE concentrations in the house have been reduced to below the interim action level. The ventilation system has successfully reduced indoor concentrations by sweeping out the cellar air. Figure 4-97 shows a plot of TCE concentrations and Tables 4-12 and 4-13 show comparisons of concentrations before and after implementation of mitigation measures.

4.4.2 Residence 8

TCE measured in Residence 8 is suspected to be from sources in the garage, not the subsurface. Higher levels of TCE were found in the garage (up to 15 $\mu g/m^3$) than in the living space (up to 2.6 $\mu g/m^3$) and crawlspace (up to 1 $\mu g/m^3$). TCE was also not detected in sub-slab soil gas samples that EPA collected directly underneath the garage. Figure 4-101 shows a plot of TCE concentrations and Tables 4-12 and 4-13 show the results of indoor, outdoor, and pathway samples collected in the house.

4.4.3 Residence 11

One sample collected in Residence 11 in August 2004 detected a TCE concentration of 1.4 μg/m^3, above the interim action level of 1 μg/m^3. However, subsequent samples collected in October 2004 and in January and February 2005 at the same location, showed TCE concentrations lower than the interim action level. The average concentration in the residence is 0.88 μg/m^3.

The former garage in this house has been converted to a living room, and the concrete slab has apparently had some termite control work, which involved drilling holes through the slab, injecting termite-control products, and then sealing the holes. EPA collected sub-slab samples from underneath the living room floor, and also collected samples from the sealed holes. These samples showed similar TCE concentrations suggesting a possible pathway through these holes.

Indoor air concentrations in the house, however, remain less than EPA's interim action level. Figure 4-104 shows a plot of TCE concentrations and Tables 4-12 and 4-13 show the results of indoor, outdoor, and pathway samples collected in the house.

4.4.4 Residence 13

The first round of samples from this house, collected in August 2004 did not detect TCE. The second round was collected in December 2004 and showed a TCE concentration of 10 μg/m^3. To confirm this datum, EPA collected an additional round of samples from the residence in March 2006, which showed TCE below the detection limit, at an estimated value of 0.2 μg/m^3. This suggests that the December 2004 concentration may have been due to a temporary indoor source.

Elevated chloroform levels were also detected in the house with higher levels in the bathroom area, which suggests an indoor source.

Figure 4-106 shows a plot of TCE concentrations and Tables 4-12 and 4-13 show the results of indoor, outdoor, and pathway samples collected in the house.

4.4.5 Other Residences

Other residences have shown concentrations below the long-term exposure goals. Tables 4-12 and 4-13 show the results of indoor, outdoor, and pathway samples collected in the houses.

4.5 Wescoat Housing

Between 2002 and 2004, the Navy performed indoor and outdoor ambient air sampling at the Wescoat Housing area. The easternmost edge of the housing area overlies the shallow TCE plume. The Navy sampled the three unoccupied residences (619B, 620E and 620F) that overly the plume and a third unoccupied residence not over the plume (C1). Figure 4-88 shows the locations of these residences. TCE concentrations in two units were above the residential interim action level of 1 μg/m^3. Tables 4-12 and 4-13 show the results of indoor, outdoor, and pathway samples collected in the homes.

Since then, Wescoat Housing (including the units sampled above) has been redeveloped (Figure 4-115) and vapor barriers and passive venting systems have been installed under the buildings to prevent vapor migration. Recent

indoor samples collected from the new development showed TCE below EPA's interim action level. Appendix B provides the results of samples collected in the houses.

4.6 QA/QC Analyses

This section summarizes the quality assurance and quality control (QA/QC) procedures used to collect and analyze data for air monitoring program conducted at the Site. QA/QC procedures are used to assess the quality of the data through the evaluation of accuracy, precision and completeness. Data were also reviewed by the MEW Companies, NASA, EPA and Navy for analysis within holding times, sample contamination and detection limits.

All QA/QC samples were collected in accordance with the applicable work plan, submitted to NELAP-certified laboratories, and prepared and analyzed using EPA Method TO-15 SIM. Summaries of QA/QC findings can be found in the individual Site reports previously submitted to EPA (Locus 2004a,b&c; Weiss 2004; PES 2004a&b; Geomatrix 2003, 2004; GeoSyntec 2003b, 2004a&b, 2005; Navy 2004a&b; NASA 2005a&b).

4.6.1 Laboratory QA/QC

In accordance with the laboratory requirements and method specifications, a minimum of one blank sample for every twenty samples collected in the field, and one control sample for every 24 hours of analytical operations, were analyzed for VOCs. As additional laboratory QA, laboratory duplicates were analyzed on approximately 10 percent of the samples submitted for analysis. All laboratory analyses were performed under the protocols described in the *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, Compendium Method TO-15: Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry* (Locus 2003a).

Method Blanks: Method, or laboratory, blanks are internal laboratory samples that are used to assess laboratory QA/QC procedures. At a minimum, one clean sample is run through the extraction process with each batch of samples. A blank sample will be run on an instrument following a sample containing high concentrations to prevent cross-contamination.

Laboratory Control Samples: The laboratory control sample (LCS) is an independent source reference standard used to validate the accuracy of the initial calibration of the instrument used to analyze the samples. The LCS undergoes the same preparation procedures as the samples submitted for analysis and is generally run once, on each instrument, for every 24 hours of analysis. All laboratory control samples (LCS) were prepared and analyzed as described in the analytical method protocol. Blank levels were used to establish the system baseline.

Laboratory Duplicates: Laboratory duplicates are aliquots of the same sample that are prepared and analyzed using the same methods and at the same time as the original samples. They are run as internal quality control to check the precision of the instrument used for analysis. The laboratories generally ran duplicate analyses on approximately ten percent of the samples analyzed. In the rare case that a Relative percent Difference (RPD) was out of range for an analyte, it was generally due to the low levels of the detected concentrations. Because detected concentrations were so low, a small difference in the actual concentrations can result in a large RPD. Samples were generally disqualified if the actual results from both analyses differed by one or more orders of magnitude. Very few samples were disqualified because an analyte was found to be out of range. As such, QA/QC goals for accuracy and precision were met and the data are of acceptable quality and valid.

4.6.2 Field QA/QC

As part of the air sampling programs, field blanks and co-located duplicate samples were submitted for analysis along with the ambient air samples. In accordance with the respective Site work plans, all external QC samples were analyzed for the VOCs using EPA Method TO-15 SIM. All laboratory analyses were performed under the protocols described in the Compendium Method for TO-15.

Field Blanks: The number of field blank samples prepared and submitted for analysis was determined by the applicable work plans (Locus 2003a; GeoSyntec 2003a; MACTEC 2003a&b, 2004). All field blank samples were filled at the laboratory using ultra high-purity air and certified clean to SIM-level reporting limits for the target list of compounds. The field blank results are used to verify sample integrity during transport and sampling; as such, non-detect analytical results indicate proper handling of sampling equipment in the field and that cross-contamination did not occur in shipment.

Co-Located Field Duplicates: The minimum number of co-located duplicate samples collected was 10% of the total number of field samples. The co-located duplicates were collected during the same time interval as the primary sample; and were placed within 2 feet of the original sample, at the same elevation, and sampled according to the same procedures. These replicate samples are used to evaluate analytical variability between samples.

Few field blank and duplicate samples were disqualified. Accuracy and precision were within QA/QC goals; as such, the data are of acceptable quality and valid.

4.6.3 Data Validation

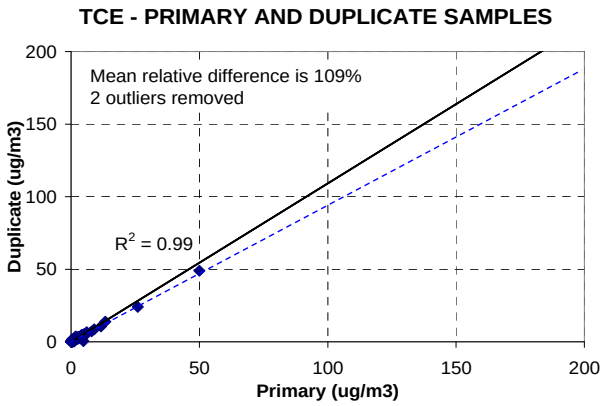
For a minimum of 10 percent of the samples collected, raw data were submitted to a third party contractor for Level IV validation in accordance with EPA Region IX National Functional Guidelines for Organic Data Review facilities, February 1994; and Compendium Method TO-15, January 1997.

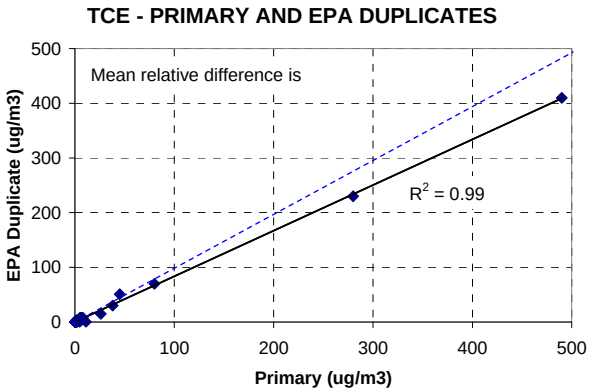
Qualifications made to the data occurred because of low-level field or laboratory blank contamination and LCS percent recoveries that were out of range. None of the samples were rejected; the data are of acceptable quality and valid. Individual PRP reports include detailed information on the data validation that was completed (Locus 2004a,b&c; Weiss 2004; PES 2004a&b; Geomatrix 2003, 2004; GeoSyntec 2003b, 2004a&b, 2005; Navy 2004a&b; NASA 2005a&b).

4.6.4 Correlation between Primary and Duplicates

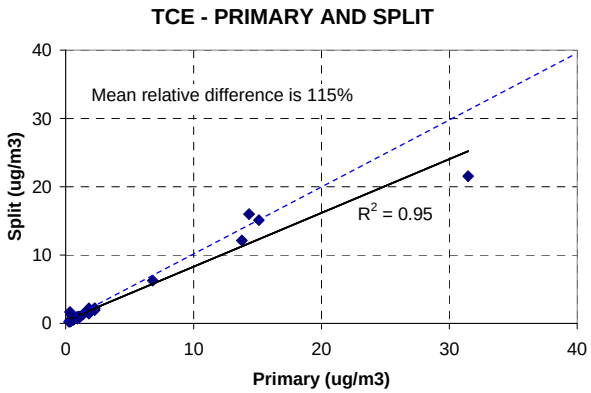
Primary samples were compared to duplicate, EPA duplicate and split samples (split samples are duplicate samples but analyzed using different labs) to determine how well TCE concentrations in the duplicate and split samples correlated with TCE concentrations in the primary samples. As will be discussed further in Section 4.8, the primary chemical concern at the Site is TCE so TCE is the focus of the duplicate and sample analysis.

Co-located duplicate samples were collected at a rate of 10 percent and sent to the same laboratory. In addition, EPA collected co-located duplicate samples, which were analyzed at EPA's laboratory. NASA collected co-located split samples at a rate of 5% and sent them to two different laboratories. To analyze potential differences between primary and duplicate/EPA/split samples, three plots were constructed: Primary vs. Duplicate, Primary vs. EPA Duplicate and Primary vs. Split. R-squared values were calculated for these plots.





Initial plotting of primary samples vs. duplicate samples (138 pairs) yielded an R-squared value of 0.78. Following the removal of two apparent outlier points [primary sample ID N210-1-24A-090704 (41.26 µg/m^3) and duplicate sample ID N210-1-24B-090704 (176.04 µg/m^3) in NASA Building N210; primary sample ID 15-1-24A-071003 (0.010 µg/m^3) and duplicate sample ID 15-1-24B-071003 (0.828 µg/m^3) in NASA Building 15], the R-squared value was calculated to be 0.99. This indicates that 99% of the variability in the duplicate concentrations can be explained by the primary concentrations. R-squared values for the EPA primary vs. EPA duplicate (75 pairs) and primary vs. split (31 pairs) were 0.99 and 0.95, respectively.



RPD was calculated for each pair of samples to determine if the duplicate samples were within +/-25% (75% to 125% relative difference) of the primary TCE concentration and split samples were within +/- 50% (50% to 150% relative difference) of the primary TCE concentration. The RPD was calculated by dividing the TCE duplicate or split concentration by the TCE primary concentration. The mean percent relative differences were 109% (outliers removed), 111% and 115% for duplicates, EPA duplicates and split samples, respectively. 14 duplicate (10%, outliers removed) and 28 EPA duplicate (37%) samples exceeded the 25% mark, and 2 split samples (6%) exceeded the 50% mark. Overall results of the duplicate and split samples are acceptable, providing confidence that the reported laboratory results are accurate.

4.7 Summary of Building-by-Building Screening Analyses

Tables 4-14 and 4-15 compare *maximum* indoor air concentrations in sampled commercial buildings and residences at the Site to EPA's long-term goals (see Section 4.2.3 for a discussion on these values). Tables 4-16 and 4-17 compare *maximum* indoor air concentrations to MEW background outdoor levels (see Section 4.2.1 and Appendix C for a discussion on background concentrations). Table 4-18 shows a statistical comparison of indoor to outdoor ambient concentrations. Table 4-19 presents a summary of the screening analyses for TCE in indoor air. Conclusions are outlined below:

1. There are no intermediate or short-term risks

2. TCE, PCE, chloroform, 1,1,1-TCA, and Freon 113 were frequently detected in background outdoor air samples. TCE concentrations were above the interim action level of 1 $\mu g/m^3$ for a residential scenario in 11 of 278 background air samples.

3. The following conditions enhance the potential for vapor intrusion into buildings resulting in concentrations higher than long-term exposure goals: i) when commercial building ventilation systems do not provide sufficient outdoor make-up air in all or part of a building, ii) when the building has a basement or subsurface structure that approaches or intercepts contaminated groundwater, and, iii) when utility conduits provide a preferential pathway for vapor intrusion into the building enclosure. In addition, there is a potential for vapor intrusion if an HVAC system is designed to supply air through a sub-floor panel that creates a zone of negative pressure underneath the raised floor, induces VOC migrations from the subsurface, and pushes the VOCs from the sub-floor panel area into the building.

4. TCE is the primary chemical of concern for vapor intrusion at the Site. Other chemicals such as cis-1,2-DCE and 1,1-DCE are useful indicators to demonstrate subsurface vapor intrusion into a building. TCE (and in one basement both TCE and cis-1,2-DCE) exceeded EPA's long-term goals in indoor air.

5. Mitigation measures, when performed,, successfully decreased TCE concentrations to below the interim action level in the indoor air breathing zone in every case except in the occasionally occupied basement of 644 National Avenue where TCE concentrations remain higher than the interim action level (the building was sold and vacated in late 2007 and will be demolished in 2009.

5 DATA ANALYSES AND FINDINGS

This section presents analyses of the key variables and mitigation measures affecting vapor intrusion in indoor air at the Site. The purpose of the analyses is to identify building commonalities, determine data gaps, if any, and provide information to be used in the Supplemental FS. As concluded on Chapter 4, the primary chemical of concern for vapor intrusion at the Site is TCE; therefore, TCE is the focus of the analyses presented in this chapter. Confirmation samples collected after implementation of mitigation measures showed that variables and mitigation measures resulting in reduced indoor air concentrations of TCE also resulted in reduced air concentrations for other chemicals of concern, if the source of these chemicals was vapor intrusion from the subsurface.

In the discussion of sample results (Chapter 4), both pathway and indoor samples were presented. Pathway samples are not included in these data analyses because these samples were collected in areas representing localized preferential pathways and are not representative of potential exposure concentrations to occupants. Additionally, sample results described in Chapter 4 include sample concentrations for both primary and duplicate samples. For this assessment of key variables, only primary (including "EPA-primary") indoor data are used to represent potential exposure concentrations to occupants because there is a high correlation between primary and duplicate and primary and split samples**.** Grab samples and TAGA samples are not included in the analyses for the same reason, and only 24-hour NASA samples are included.

This chapter presents an analysis of the TCE concentrations within buildings by season and by various building construction, source and sampling variables. Variables studied but found to not have sufficient data for evaluation are also discussed. Discussions of key variables are presented separately for commercial and residential buildings. Finally, implemented interim mitigation and preventative measures are evaluated.

5.1 Evaluation of Data Collected by Temperature

Indoor TCE concentrations were analyzed to determine whether the seasonal variation of outdoor temperatures may affect measured air concentrations. The minimum, maximum and average daily outdoor temperatures were recorded for 55% of all primary indoor samples. The temperatures range from a minimum of 36 to a maximum of 97 degrees Fahrenheit. To analyze the potential effect of temperature, data from these buildings regardless of ventilation, remedial status, or commercial/residential status were used. The maximum temperature values for each sample were plotted against the TCE concentration (Figure 5-1). The maximum values were used instead of the means so that extreme values are not averaged out of the analysis. The best-fit line of the maximum temperatures shows a flat line trend with line of slope near zero (-0.006). The R-squared value for this relationship is 0.0, meaning that there is no detectable relationship between TCE concentrations and temperature. . Based on this analysis, air data collected for each building during the various seasons were grouped together for evaluation of similar building variables.

Others have evaluated the effect of local meteorological conditions (season, temperature, atmospheric pressure, wind direction and wind speed) on measured ambient concentrations (NASA 2005a&b). Those results confirm the findings presented above that there is no apparent relationship between measured TCE concentrations and temperature.

5.2 Commercial Building Construction, Source and Sampling Variables

Indoor air samples were collected in 39 commercial buildings at the Site. Table 5-1 presents a summary of building characteristics, source information and sampling conditions for each of the buildings. The following information is presented:

Building characteristics: i) Construction type—slab-on-grade, basement, crawlspace; ii) date of construction—pre-1970 or post-1990s; iii) type of HVAC system—economizer, manual; iv) estimated air exchange rate—in air exchanges per hour (hr^{-1}); v) use of vapor barrier construction—yes or no.

Potential subsurface source information: i) Groundwater concentration beneath building—less than 100 µg/L TCE, "A"; 100 to 1,000 µg/L TCE, "B"; greater than 1,000 µg/L TCE, "C"; ii) depth to groundwater beneath building (in feet bgs); iii) soil source—yes/remediated, or no known source area.

Sampling conditions: i) Ventilation status—HVAC on, HVAC off, natural, low (all ventilation units were not operating), or none; ii) floor sampled—1st floor, 2nd floor, or basement; iii) occupied/unoccupied.

Remedial conditions: i) Baseline —sampled prior to any interim mitigation measures to address vapor intrusion; ii) sealed conduits (SC)—sampled after sealing of conduits; iii) enhanced ventilation (EV)—sampled after enhancing ventilation to increase make-up air; iv) SC+ EV—sampled after sealed conduits and enhanced ventilation; v) source control—sampled after target source indoor vapor control measures were implemented (e.g., sealing elevator shaft, sealing of openings in basement floors including sumps).

Building characteristics that are "unknown" are also indicated in Table 5-1. A building may be listed more than once in the table because various sampling conditions may have been evaluated (i.e., ventilation on and off, baseline and sealed conduits, basement and first floor sampled). The number of TCE samples, number of detections, minimum and maximum detected concentration, mean and standard deviation and number of detections greater than the interim action level of 2.7 µg/m^3 for each discrete sampling condition variable are also provided in the table.

Table 5-2 summarizes the general characteristics of the sampled buildings. Most sampled commercial buildings are slab-on-grade (33 buildings/846 samples), post-1995 construction (20 buildings/355 samples) and are occupied (30 buildings/861 samples).

To minimize the impact of confounding variables, only baseline conditions (sampled prior to any interim mitigation measures to address vapor intrusion) are discussed below. Data collected during non-baseline post-mitigation conditions (i.e., enhanced ventilation, sealed conduits, or source control) are discussed separately.

5.2.1 Construction Type, Building Construction Year and Vapor Barrier Use

Table 5-3 presents a comparison of indoor air TCE concentration by construction type and year. Vapor barriers were used only after post-1990s construction. Therefore, the same findings for post-1990s building construction apply to vapor barrier use.

Three general categories of buildings are shown:

1. Slab-on-grade with ventilation (green);

2. Slab-on-grade with ventilation off, low, or none (yellow); and

3. Basement/elevator/pit construction (orange).

In general, the highest TCE concentrations are found in buildings with basement and basement/elevator/pit construction (orange category) indicating that these buildings represent a high potential for vapor intrusion. The highest TCE concentrations and percentage of concentrations greater than the interim action level of 2.7 $\mu g/m^3$ were found in the building on 644 National Avenue, which contains a periodically occupied basement where groundwater percolates onto the floor.

In the yellow category, (slab-on-grade buildings with ventilation off, low, or none), more than half of the buildings had TCE concentrations that exceeded the interim action level of 2.7 $\mu g/m^3$.

In buildings with HVAC ventilation on (green category), all buildings show very low TCE concentrations below the interim action level of 2.7 $\mu g/m^3$ (with the exception of 545 N. Whisman, 415 E. Middlefield and 501 Ellis Street, which showed single maximum values above the interim action level of 2.7 $\mu g/m^3$ that were not confirmed during co-located, previous, or subsequent samples).

5.2.2 Heating, Ventilation and Air Conditioning (HVAC) Type

Table 5-4 presents a comparison of TCE air concentrations for HVAC system modes for the 32 buildings that have operating HVAC systems and for which HVAC information was available. The majority of the buildings' HVAC systems include an economizer. There does not appear to be an obvious correlation between the measured TCE concentrations and the type of HVAC mode.

5.2.3 Estimated Air Exchange Rate

When sufficient information was available, air exchange rates were estimated for buildings. The estimates assume air exchange rates based on minimal economizer settings and estimated air flow rates in manual dampers. The air exchange rate can vary during the year based on outside temperature and other parameters. Although rates were estimated for most buildings, measured air exchange rates were obtained in several buildings (e.g., 555 Ellis Street, 355/365 E. Middlefield Road, 350 Ellis Street – Bldg A, 380 Middlefield Road – Bldg C, 380 Middlefield Road – Building D). Also the estimated air exchange rate in a building (299 Fairchild Drive) was verified with a measured air exchange rate (both yielded 1.1 /hr). In addition, a tracer study was conducted in the 425 National Avenue building (unoccupied, no HVAC system) in which an air exchange rate of 0.033 hr^{-1} was determined.

Sampled buildings with an air exchange rate of at least 1/hr showed TCE concentrations significantly lower than the interim action level of 2.7 $\mu g/m^3$ (Figure 5-2), with the exception of 545 N. Whisman, 415 E. Middlefield and 501 Ellis Street, which showed single maximum values above the interim action level but were not confirmed during co-located, previous, or subsequent samples. Buildings with air exchange rates less than 0.4/hr had TCE concentrations that exceeded the interim action level. Although there are no data available to demonstrate the effectiveness of an air exchange rate between 0.4 and 1/hr, it is possible that an air exchange rate lower than 1/hr could result in indoor air concentrations below the long-term exposure goals.

5.2.4 Groundwater Concentration

Groundwater concentration is classified into three levels: 1) "A"- less than 100 µg/L TCE; 2) "B"- 100 to 1,000 µg/L TCE; and C - greater than 1,000 µg/L TCE. As shown in Table 5-5, each of the three classifications can be represented by a set of buildings depending on the groundwater concentration under each building. In general it appears that buildings overlying the higher groundwater concentrations have a higher likelihood of indoor air samples exceeding the TCE interim action level of 2.7 µg/m^3. It also appears that sampled buildings in all the groundwater concentration classifications exceeded the interim action level of 2.7 µg/m^3 TCE when the building is not sufficiently ventilated.

5.2.5 Depth to Groundwater

Depth to groundwater beneath the buildings ranges from approximately 7 to 21 feet bgs. The depth to groundwater beneath buildings with basements below the groundwater table is defined as 0 feet bgs. Figure 5-3 presents the depth to groundwater versus the mean TCE concentrations. As shown in the figure, the mean values are low and show little variability. The potential effect of groundwater depth is less evident when ventilation is operating in the buildings.

5.2.6 Soil Source

Table 5-6 presents a comparison of TCE air concentrations for buildings near which soil sources were remediated by excavation or soil vapor extraction (see Figure 2-8 for buildings south of U.S. Highway 101). Limited data are available to evaluate the effect of former soil source areas on indoor TCE concentrations due to confounding of other variables. Potential impacts are less evident when ventilation is operating in the buildings.

5.2.7 Floor Sampled

Nearly all samples were collected within the first occupied floor of the buildings. Buildings in which samples were collected on multiple floors with similar ventilation conditions are listed below.

425 National Ventilation off: Floor 1 (TCE mean 8 µg/m^3, maximum 8.7 µg/m^3); Floor 2 (TCE mean 7.9 µg/m^3; maximum 8.4 µg/m^3);

644 National Natural Ventilation on: Basement (TCE mean 288 µg/m^3, maximum 490 µg/m^3), Floor 1 (TCE mean 35 µg/m^3; maximum 49 µg/m^3); Floor 2 (TCE mean 75 µg/m^3; maximum 94 µg/m^3)

N210 Ventilation on: Floor 1 (TCE mean 12 µg/m^3; maximum 110 µg/m^3); Floor 2 (TCE mean 1.6 µg/m^3; maximum 3.0 µg/m^3)

N211 Ventilation on: Floor 1 (TCE mean 0.02 µg/m^3; maximum ND); Floor 2 (TCE mean 0.22 µg/m^3; maximum 0.42 µg/m^3)

N243 Ventilation on: Basement (TCE mean 0.20 µg/m^3; maximum 0.46 µg/m^3); Floor 1 (TCE mean 0.22 µg/m^3; maximum 0.42 µg/m^3);

17 Natural Ventilation on: Basement (TCE mean 0.74 µg/m^3; maximum 3.1 µg/m^3); Floor 1 (TCE mean 0.90 µg/m^3; maximum 53 µg/m^3 - this maximum value was not confirmed by several previous and subsequent samples at the same location).

In most cases there is no significant difference in measured TCE concentrations between building floors with similar ventilation conditions; when there is, specifically when TCE exceeded the interim action level, (e.g., 644 National Avenue, N210) the floor immediately above the subsurface (basement or 1st floor) had higher concentrations than the floors above.

5.2.8 Ventilation Status

Two buildings (401 E. Middlefield and 415 E. Middlefield) allow a comparison of TCE when the ventilation system had been off for an extended period of time (e.g., simulating an unoccupied building) and then turned back on (such as when the building is re-occupied). Figure 5-4 shows the significant (at least a 10-fold in a majority of cases) reduction in mean TCE concentrations to below the TCE interim action level of 2.7 $\mu g/m^3$ when ventilation is operating. The effect of ventilation as a mitigation action is discussed in Section 5.2.9.

5.2.9 Comparison of Pre- and Post-Mitigation Action Conditions

Table 5-7 presents an evaluation of the subset of 11 buildings in which indoor remedial actions (SC, EV, or SC+EV) were implemented. Both pre- (baseline) and post-remedial action sample results are shown for each building. Table 5-10 presents a comparison of TCE concentrations pre- and post mitigation.

In general the remedial actions taken were effective in reducing indoor TCE concentrations to below the interim action level. Figure 5-4 presents average TCE indoor air concentrations for buildings under both pre– (baseline) and post-mitigation actions, in addition to considering ventilation status (on or off). Enhancing ventilation or turning existing HVAC systems on appears to have significant effects on indoor air concentrations, as shown for Buildings 15, 660 National Avenue, 645 National Avenue, 401 E. Middlefield, and 415 E. Middlefield. Other actions (sealing conduits, air purification, exhaust system in the basement) generally reduced concentrations to below the interim action level, but their effect appears to be less dramatic, with the exception of the first floor of 644 National Avenue, where the exhaust system in the basement reduced maximum detected concentrations in the first and second floors from a maximum of 94 $\mu g/m^3$ to a maximum of 0.56 $\mu g/m^3$.

5.3 Residential Buildings

Indoor air sampling was conducted at 31 residential buildings within the Vapor Intrusion Study Area three of which have been demolished (619B, 620E, 620F in the Wescoat Housing Area). These three demolished homes are not included in this analysis. Table 5-8 presents a summary of residence characteristics, source information, sampling conditions, and measured indoor air TCE concentrations for each of the buildings. Fewer characteristics are available for residences than for the commercial buildings due to the nature of residences (no HVAC system). The following information is presented:

Building characteristics: i) Construction type—slab-on-grade, crawlspaces, or unknown; ii) date of construction—unknown or 2006; iii) use of vapor barrier construction – yes or no

Potential subsurface source information: i) Groundwater concentration beneath the building—less than 100 µg/L TCE, "A"; 100 to 1,000 µg/L TCE, "B"; greater than 1,000 µg/L TCE, "C"; ii) depth to groundwater beneath building (in feet bgs)

Sampling Conditions: i) Ventilation status—natural or none; ii) floor sampled—1st floor or basement; iii) occupied/unoccupied; iv) remedial conditions—baseline or other.

Of the 31 residences sampled in the Vapor Intrusion Study Area, 18 residences have slab-on-grade construction and 14 are newly constructed in 2006 (Wescoat Housing). The other residences have a basement and/or crawlspace (13 residences). Information on vapor barrier use is available for the 14 residences on Wescoat Housing (a total of 38 structures, 14 of which are in the Vapor Intrusion Study Area). All 31 residences are located above groundwater with less than 100 µg/L of TCE (classification "A"). All of the residences that were occupied were considered to have "natural" ventilation due to the opening of doors and windows.

All of the residences were sampled under conditions indicative of baseline. Residence 8 was found to have an indoor source of TCE. Residence 11 had an indoor concentration of 1.4 $\mu g/m^3$ that slightly exceeds EPA's interim action level of 1 $\mu g/m^3$. Subsequent samples collected at the same location all showed TCE concentrations below 1 $\mu g/m^3$. The average TCE concentration for Residence 11 is 0.88 $\mu g/m^3$ (from four samples).

In Residence 13, a TCE concentration of 10 $\mu g/m^3$ was measured during the second round. However, levels below the detection limit were measured in the first round and in the third confirmation round. This suggests that the second round result may have been due to a temporary indoor source.

Due to the relatively low TCE concentrations measured in the residences sampled, an evaluation of key variables affecting indoor air concentrations was deemed to be unnecessary.

5.4 Findings

A substantial amount of data has been collected at the Site that allows for commonalities within building groupings to be identified. Analysis of the data supports the following conclusions regarding indoor air TCE concentrations and the variables affecting indoor air concentrations detected in these buildings:

- TCE concentrations were not detected above the 2.7 $\mu g/m^3$ interim action level in any of the 28 commercial buildings with slab-on-grade construction when the buildings were occupied and standard building occupancy ventilation was operating properly (with the exception of some isolated maximum values that were not consistent with co-located, previous, or subsequent sample results).

- The highest indoor TCE concentrations and most frequent percentage of concentrations greater than interim action level of 2.7 $\mu g/m^3$ were found in a building with a basement in which there is direct contact with groundwater (644 National Avenue). Elevated concentrations were also found in a NASA building in which the ventilation system introduced air from beneath the raised floor into the building (N210).

- In those buildings where samples were collected both when HVAC ventilation was on and off for an extended period of time, samples collected when HVAC system was off generally had significantly higher TCE concentrations than samples collected when HVAC system was on. In a majority of cases, there was at least a 10-fold reduction in TCE air concentrations when HVAC system was on. There is a general decrease of TCE concentrations with increasing air exchange rates.

- In general it appears that buildings overlying the higher groundwater concentrations have a higher likelihood of indoor air samples exceeding the TCE interim action level of 2.7 $\mu g/m^3$. It also appears that sampled buildings in all the groundwater concentration exceeded the interim action level of 2.7 $\mu g/m^3$ TCE when the building is not sufficiently ventilated.

- The TCE air concentrations were reduced after implementation of interim mitigation measures (i.e., sealing conduits, enhanced ventilation, and/or source control).

- In most cases there is no significant difference in measured TCE concentrations between building floors with similar ventilation conditions; when there is, specifically when TCE exceeded the interim action level, sampling the floor immediately above the subsurface (basement or 1st floor) was a conservative approach in that this floor had higher concentrations than the others.

- All residences west of Whisman were sampled under baseline conditions.. With the exception of one residence that was found to have an indoor source of TCE, and two residences in which a single exceedance of the interim action level could not be subsequently repeated, one residence showed TCE above the interim action level of 1.0 $\mu g/m^3$, which required ventilation mitigation measure be implemented in the earthen cellar to reduce TCE concentrations. Two unoccupied and now demolished residences in Wescoat Housing sampled in 2003 and 2004 showed TCE above the interim action level resulting from subsurface vapor intrusion. New construction replacing the former Wescoat Housing included the installation of vapor mitigation measures (installation of vapor barrier and passive sub-slab ventilation system).

- Seasonal temperature variation does not appear to significantly affect indoor air TCE concentrations. Therefore, data collected over a variety of seasons provide an appropriate range of indoor air concentrations.

5.5 Evaluation of Implemented Interim Mitigation Measures

Chapter 4 presents a building-by-building discussion of sampling activities and results and includes a description of the interim mitigation and preventative measures implemented at the Site. These measures included the following:

- Sealing open dry conduits that penetrate the sub-slab

- Refurbishing mechanical ventilation systems to supply additional outdoor make-up air

- Installation of exhaust/ventilation systems in sub-slab structures (basements, earthen cellars) and in utility rooms

- Installation of air purification systems to reduce indoor air concentrations in enclosed utility rooms

- Sub-slab pressurization

- Installation of vapor barriers and passive ventilation systems under the new development at Wescoat Housing

Table 5-9 presents a summary of percentage reduction in TCE concentrations after implementation of these interim mitigation measures, when data are available to perform the calculations.

5.5.1 Sealing of Dry Conduits

Pathway samples revealed vapor intrusion was occurring in certain utility rooms where open conduits were observed.

370 Ellis Street – Building A: Building drawings revealed that conduits in the utility rooms are connected directly to deep vaults outside the building (Figure 4-87). Confirmation samples were collected in the utility rooms after conduits were sealed. TCE in pathway samples collected in Utility Room A106 decreased from a maximum of 170 $\mu g/m^3$ to a maximum of 13 $\mu g/m^3$ after sealing of the conduits. Freon 113 decreased from a maximum of 24 to a maximum of 7.2 $\mu g/m^3$. 1,1,1-TCA decreased from a maximum of 8.7 to a maximum of 2.3 $\mu g/m^3$. PCE remained virtually unchanged, indicating potential indoor sources of PCE.

380 Ellis Street – Building C: In Utility Room C110 where pathway samples were collected before implementation of mitigation measures, sealing of the conduits resulted a significant decrease in concentrations. Specifically, TCE decreased from a maximum of 310 $\mu g/m^3$ to a maximum of 6.5 $\mu g/m^3$ after sealing of the conduits. PCE decreased from a maximum of 64 to a maximum of 2.8 $\mu g/m^3$. Freon 113 decreased from a maximum of 22 to a maximum of 5.2 $\mu g/m^3$. 1,1,1-TCA decreased from a maximum of 24 to a maximum of 1.4 $\mu g/m^3$. Cis-1,2-DCE decreased from a maximum of 1.7 $\mu g/m^3$ to a non-detect levels.

380 Ellis Street – Building D: In Switch Gear Room D112, where pathway samples were collected before implementation of mitigation measures, TCE was measured at concentrations up to 5.1 $\mu g/m^3$. TCE was measured at 1.3 $\mu g/m^3$ in the most recent confirmation sample collected after sealing conduits in the room.

380 Ellis Street – Building E: In IDF Room E132 where pathway samples were collected before implementation of mitigation measures, TCE was measured at concentrations up to 48 $\mu g/m^3$. TCE was not detected in the most recent confirmation sample collected after sealing conduits in the room.

In general, sealing of dry conduits has been shown to decrease concentrations of VOCs transmitted through the conduits. Table 5-9 indicates a percentage decrease of up to 99%. In three cases, the concentrations remained virtually the same, or somewhat increased. However, TCE concentrations in these three cases were below the interim action level and conduits were sealed as a precautionary measure.

5.5.2 Refurbishing of HVAC Systems

Of the various parameters affecting indoor air quality, HVAC system ventilation has been shown to be the most effective method to reduce indoor air concentrations by providing outdoor make-up to the indoors. The remedial investigation revealed a strong relationship between ventilation and indoor air quality. It was found that for several buildings that were sampled with the HVAC system on and off (401 and 415 E. Middlefield Road), TCE concentrations change to below and above the interim action level, respectively. For buildings sampled on weekends (350, 370 and 380 Ellis Street), when the HVAC system is off, some samples showed TCE concentrations above the interim action level. When the same locations were sampled on a weekday with normal operation of the HVAC system, those locations showed TCE concentrations either at, or close to, the non-detect (ND) level. Instead of repeating the detailed discussion of these conditions, the reader is referred to Chapter 4 of this document where a building-by-building discussion is provided.

Refurbishing an existing HVAC system also is effective in reducing TCE concentrations to below the interim action level. For example, in the building at 660 National Avenue, indoor air quality samples were collected before and after the HVAC system was refurbished to increase the outdoor make-up air. Concentrations of TCE were reduced

to ND levels after the system was refurbished (93% reduction observed – Table 5-9). In the building at 355/365 E. Middlefield Road, all indoor air concentrations of TCE were below the interim action level before the HVAC system was refurbished. After the HVAC system was refurbished to increase the make-up air, significant decreases in TCE concentration were observed (59% reduction observed – Table 5-9), and they remained well below the interim action level. Similarly, refurbishing the HVAC system at NASA Building 15 decreased the indoor TCE concentrations significantly (77% reduction).

The data show that most buildings where sufficient outdoor make-up air is provided to the indoors have TCE concentrations below interim action levels (with the exception of the basement at 644 National Ave.), so providing sufficient outdoor make-up air to the indoors may be effective in maintaining concentrations below or within long-term cleanup goals.

5.5.3 Ventilation of Basement, Utility Rooms and Subsurface Structures

In the building at 401 National Avenue, the HVAC system could not be operated. Ventilation was provided by reconnecting an existing exhaust system in a utility room to the power supply and opening louvers in the wall between the utility room and interior offices. Operating the exhaust system induced a low-level air movement through these central offices. Confirmation samples revealed a one-order of magnitude drop in TCE concentrations to below the interim action level.

The building at 644 National Avenue did not have an operating ventilation system. Two units recirculated air within the second floor and a portion of the first floor, but did not provide outdoor make-up air. Groundwater had been observed to seep through the basement floor in this building, providing a direct pathway for volatilization from the water to the indoor air. Two exhaust fans were installed in the basement and several cracks and sump openings were sealed. Operation of the fans exerted a negative pressure area in the basement and prevented VOCs from migrating to the occupied first and second floors. Confirmation samples showed TCE level below the interim action level after the fans started operating (99% reduction in TCE concentrations). In the basement, TCE concentrations were reduced significantly, but remained higher than the interim action level, largely because groundwater continued to seep onto the basement floor at some locations. Concentrations of other chemicals were reduced significantly to below long-term exposure goals.

A ventilation system was installed in the earthen cellar of Residence 4. The system pushes air into the cellar and then exhausts it to the outside. Confirmation samples showed a significant reduction in indoor air concentrations to below EPA's interim action level of TCE. Certain samples in the earthen cellar show TCE slightly above the interim action level.

Ventilation of utility rooms and sub-slab structures is effective in reducing indoor air concentrations to below long-term exposure goals. However, the effectiveness of ventilation in a basement, where groundwater impacted with VOCs accumulates, appears to be limited.

5.5.4 Air Purification Systems

Air purification systems have been demonstrated to be effective in reducing indoor air concentrations significantly in enclosed spaces. Air purification systems circulate the air in the enclosed space through a carbon filter. VOCs in the air then adsorb on the carbon in the unit.

The effectiveness of these systems was demonstrated in four enclosed utility rooms where moderately elevated concentrations of VOCs were present (i.e., 2-3 times higher than TCE interim action level). These are utility rooms

at 370 and 380 Ellis Street (see Chapter 4 for details). For example, an air purifier system was installed in Room 104, which is enclosed, fire-proof, and cooled using an air re-circulation system that is not supplied with outdoor make-up air. In Room 104A, TCE concentrations decreased to below EPA's interim action level after installation of the air purifier and TCE in the most recent sample was 0.49 $\mu g/m^3$. Similar systems were installed in other utility rooms where TCE concentrations were reduced to below EPA's interim action level. Percentage reductions varied between 37% and 82%, with lower reductions at lower pre-mitigation TCE concentrations.

5.5.5 Sub-Slab Pressurization

The developer of 425-495 N. Whisman Road installed a SSP system as a precautionary measure to address the potential for vapor intrusion in the buildings. Each SSP includes a blower that pushes outdoor air into a gravel layer under the concrete floor slab of each building. The action of pushing air into the gravel layer beneath the building creates a slight positive pressure in the void space and prevents any VOCs in soil gas from potentially migrating upward into the building.

After construction, sub-slab and outdoor ambient air samples were collected at each building while the SSP system was operating. PCE and TCE in the sub-slab were found to be at or near outdoor air concentrations and within or below EPA long-term goals.

5.5.6 Vapor Barriers and Passive Ventilation System in Residences

The Wescoat Housing Area was redeveloped in 2006 (Figure 4-111) and vapor barriers and sub-slab passive venting systems were installed under the buildings to prevent vapor migration into the homes. A large number of these homes are not over the shallow plume, and therefore not within the Vapor Intrusion Study Area. Indoor air samples collected from the new development showed TCE below EPA's interim action level, demonstrating effectiveness of these systems in residences. Appendix B shows the results of samples collected in the houses.

In addition, a development constructed on Evandale Avenue west of Whisman Road, Classic Communities, installed vapor barriers and sub-slab passive venting system as a precautionary measure to prevent the potential vapor intrusion pathway. The eastern boundary of this development may overlie the western edge of the Vapor Intrusion Study Area.

5.6 Recommended Additional Data

Air exchange rates were estimated from minimum economizer settings and from estimated air velocities into manual dampers. These air exchange rates can change depending on the temperature and other building parameters. Additional information on operations of the HVAC systems would be helpful in evaluating operation parameters for these HVAC systems (e.g., economizer settings, time of operations).

There are 28 buildings that overlie the plume south of U.S. Highway 101 that have not been sampled. Walkthroughs of 20 of these buildings have been completed and information has been collected on the building conditions that likely will impact the buildings' potential to have vapor intrusion. Walkthroughs of the remaining buildings needs to be completed.

There are 101 buildings that overlie the plume north of U.S. Highway 101 that have not been sampled. Walkthroughs of these buildings have not been completed and information on the likelihood of vapor intrusion has not been assessed. However, many of these buildings are unoccupied and scheduled to be demolished as

part of NASA's redevelopment plans. Buildings that will remain, are occupied, and are planned to be occupied need to be further assessed for the potential for vapor intrusion.

The draft RI report submitted to EPA in February 2008 recommended collection of additional weekday samples at the 350-380 Ellis Street buildings. Raytheon collected an additional round in September 2008 in these buildings, and the information was provided in the 2008 Annual report for the properties (Locus, 2009).

6 SUMMARY AND CONCLUSIONS

Extensive air investigations have been performed at the Site to evaluate the vapor intrusion pathway into buildings. The investigations included collection of over 2,800 air samples. A total of 47 commercial buildings and 30 residences in the Vapor Intrusion Study Area were sampled. This Supplemental RI report compiled the results from the air investigations performed by the MEW Companies, Navy, NASA, and EPA and provided a discussion of the interim mitigation measures implemented to date. .

6.1 Summary of Findings

The following are a summary of the findings of the remedial investigation performed at the Site:

- Indoor air results indicate there are no intermediate or short-term health concerns.

- TCE, PCE, chloroform, 1,1,1 TCA and Freon 113 were frequently detected in background outdoor air samples. TCE concentrations were above the interim action level of 1 $\mu g/m^3$ for a residential scenario in 11 of 278 background air samples.

- The following conditions enhance the potential for vapor intrusion of TCE to exceed concentrations above long-term exposure goals inside buildings: i) when commercial building ventilation systems do not provide sufficient outdoor make-up air in all or part of a building, ii) when the building has a basement or subsurface structure that approaches or intercepts contaminated groundwater, and iii) when utility conduits provide a preferential pathway for vapor intrusion into the building enclosure.

- In addition, there is a potential for vapor intrusion if an HVAC system is designed to supply air through a sub-floor panel that creates a zone of negative pressure underneath the raised floor, induces VOC migrations from the subsurface, and pushes the VOCs from the sub-floor panel area into the building.

- TCE can be used as the primary chemical of concern for vapor intrusion at the Site. Other chemicals such as cis-1,2-DCE and 1,1-DCE are useful indicators to demonstrate subsurface vapor intrusion into a building.

- Mitigation measures implemented in buildings at the Site were successful in decreasing TCE to below the interim action level in indoor air of occupied areas except in an occasionally occupied basement of a commercial building, where groundwater was seeping onto the basement floor. The building was sold and vacated in 2007, and commercial redevelopment plans indicate the building will be demolished.

- The highest indoor TCE concentrations and most frequent percentage of concentrations greater than interim action level of 2.7 $\mu g/m^3$ were found in a building with a basement in which there was direct contact with groundwater (644 National Avenue). Elevated TCE concentrations were also found in a NASA building in which the ventilation system introduced air from beneath the raised floor into the building (N210).

- In commercial buildings with slab-on-grade construction, TCE concentrations were not detected above the 2.7 $\mu g/m^3$ TCE interim action level when the buildings were occupied and standard building occupancy ventilation was operating properly (with the exception of some isolated maximum values that were not consistent with co-located, previous, or subsequent sample results).

- In those buildings where samples were collected when the HVAC system was off generally had significantly higher TCE concentrations than samples collected when the HVAC system was on. In a majority of cases, there was at least a 10-fold reduction in TCE air concentrations when the HVAC system was on. There is a general decrease of TCE concentrations with increasing air exchange rates.

- In general it appears that buildings overlying the higher groundwater concentrations have a higher likelihood of indoor air samples exceeding the TCE interim action level of 2.7 $\mu g/m^3$. It also appears that sampled buildings in all the groundwater concentration categories exceeded the interim action level of 2.7 $\mu g/m^3$ TCE when the building is not sufficiently ventilated.

- The TCE concentrations in indoor air were reduced after implementation of mitigation measures (i.e., sealing conduits, enhanced ventilation, and/or source control).

- In most cases there is no significant difference in measured TCE concentrations between building floors with similar ventilation conditions. When TCE exceeded the interim action level, the floor immediately above the subsurface (basement or 1st floor) had higher concentrations than the others.

6.2 Evaluation of Implemented Interim Mitigation Measures

Several interim mitigation measures were implemented at the Site. The following is a summary of the effectiveness of these measures:

1. **Sealing of open dry conduits that penetrate the slab**: In general, sealing dry conduits resulted in decreased concentrations of VOCs transmitted through the conduits. Table 5-9 indicates a percentage decrease of up to 99%. But in three cases, the concentrations remained virtually the same, or somewhat increased. However, TCE concentrations in these three cases were below the interim action level and conduits were sealed as a precautionary measure.

2. **Refurbishing mechanical ventilation (HVAC) systems to supply additional outdoor make-up air**: HVAC ventilation has been shown to be an effective method to reduce indoor air concentrations by providing outdoor make-up air to the indoors. Data show buildings with an air exchange rate of 1/hr or more showed TCE concentrations below interim action levels (with the exception of some isolated maximum values that were not consistent with co-located, previous, or subsequent sample results). Providing adequate outdoor make-up air to the indoors is effective in maintaining concentrations below long-term exposure goals. Percentage reduction in TCE concentrations varied between 77% and 93%. One building showed 59% reduction, but all indoor air TCE concentrations before or after the mitigation measure were below the interim action level for that building.

3. **Installation of exhaust/ventilation systems in sub-slab structures (basements, earthen cellars) and in utility rooms**: Ventilation of utility rooms and sub-slab structures is effective in reducing indoor air concentrations in these types of low-occupancy areas. However, the effectiveness of ventilation appears to be limited in a basement where VOC-impacted groundwater accumulates. Installation of an exhaust system in a basement in a commercial building showed a 99% reduction in indoor air TCE concentrations on the first and second floor.

4. **Installation of air purification systems to reduce indoor air concentrations in enclosed utility rooms**: Air purification systems have been effective in reducing indoor air concentrations to below the interim

action level in enclosed utility rooms. Percentage reduction varied between 37% (at lower TCE concentrations) and 96% (at higher TCE concentrations).

5. **Installation of Sub-slab pressurization systems**: A sub-slab pressurization system installed at a new development on 425-495 N. Whisman Road shows that such a system is effective in preventing vapor migration into buildings.

6. **Installation of vapor barriers and passive sub-slab ventilation systems under residences:** Indoor air samples collected from a new development at the Site where homes were constructed with a vapor barrier and with a passive ventilation system showed TCE below EPA's interim action level, demonstrating effectiveness of these systems under residences.

6.3 Recommended Additional Data

There are sufficient data available on the sampled buildings, collected during this Supplemental RI, to move forward with a feasibility study that will evaluate alternatives to address the potential vapor intrusion pathway into buildings at levels of concern for long-term exposure. Data analysis of the sampled buildings can be used to focus the need for further evaluation, sampling or mitigation of the un-sampled buildings as part of the feasibility study. This RI report recommends collection of the following additional information:

1. Air exchange rates were estimated from minimum economizer settings and from estimated air velocities into manual dampers. These air exchange rates can change depending on the temperature and other building parameters. Additional information on operation of the HVAC systems would be helpful in evaluating proper operation parameters for these HVAC systems (e.g., economizer settings, time of operations).

2. There are 28 commercial buildings in the Vapor Intrusion Study Area south of U.S. Highway 101 that have not been sampled. Walkthroughs of 20 of these buildings have been completed and information has been collected on the building conditions that likely will impact the buildings' potential to have vapor intrusion. Walkthroughs of the remaining buildings should be completed.

3. There are 114 buildings in the Vapor Intrusion Study Area on Moffett Field. Walkthroughs in some of these buildings have not been completed and information on the likelihood of vapor intrusion has not been assessed. However, many of these buildings are unoccupied and scheduled to be demolished as part of NASA's redevelopment plans. Buildings that will remain and plan to be occupied need to be further assessed for the potential for vapor intrusion.

6.4 Outstanding Issues

The Navy has declined to participate in this RI/FS process. It is not known if the Navy will implement the subsequent ROD Amendment in its area of responsibility.

Owners/tenants in 7 commercial buildings south of U.S. Highway 101 have denied access or did not respond to several requests for access. These buildings have been referred to EPA for further follow-up.

6.5 Recommended Remedial Action Objectives

The Remedial Action Objectives for the Site established in the 1989 MEW ROD were to reduce levels of chemicals in groundwater (and chemical sources to groundwater) so that the groundwater could ultimately be used for domestic purposes. At that time, no RAOs for the vapor intrusion pathway were identified. Accordingly, EPA recommended in its Five-Year Review for the Site (EPA 2004b) that RAOs for the subsurface vapor intrusion pathway be established for the Site.

RAOs typically specify the chemicals of concern, the exposure route and an acceptable chemical level or range of levels. For the Site, chemicals of concern are VOCs detected in groundwater (see Section 3.1.2). The exposure route is volatilization from the subsurface to indoor air.

The recommended RAO for the indoor air pathway is to ensure that building occupants (workers and residents) are protected from Site contaminants by preventing the contaminants in the subsurface from migrating into indoor air or accumulating in enclosed building spaces at levels of concern. In addition, another RAO for the Site is to reduce or minimize the source of vapor intrusion (i.e., Site contaminants in shallow groundwater), to levels that would be protective of current and future building occupants such that the need for a vapor intrusion remedy would be minimized or no longer be necessary. This RAO is not being addressed by the proposed vapor intrusion remedy; instead, it will be addressed by the groundwater remedy which is being re-evaluated in a separate feasibility study for the Site.

REFERENCES

Canonie Environmental 1988. *Feasibility Study, Middlefield-Ellis-Whisman Area, Mountain View, California*, prepared for Fairchild Semiconductor Corporation, Intel Corporation, and Raytheon Company, 18 November.

Bell, Z., K. Olson, and T. Benya, 1978, *Final report of audit findings of the Manufacturing Chemists Association (MCA): Administered trichloroethylene (TCE) chronic inhalation study at industrial Bio-Test Laboratories*, Bio-Test Laboratories, Decatur, IL. (not seen, as cited in Rhomberg 2000).

Department of Toxic Substances Control, 2004, *Interim Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, 15 December.

Erler & Kalinowski, Inc., 2001, *Draft Final Environmental Issues Management Plan, NASA Ames Research Park, Mountain View, California*, December.

---, 2005, *Environmental Issues Management Plan, NASA Ames Research Park, Mountain View, California,* 1 March.

---, 2006, *Sub-Slab Pressurization System Startup Testing and Air Sampling Report,* prepared for 465 Whisman Associates, LLC, January 31.

Fukuda, K., K. Takemoto, and H. Tsuruta, 1983, *Inhalation carcinogenicity of trichloroethylene in mice and rats,* Ind. Health 21:243–254.

GeoSyntec Consultants, 2003a, *Revised Work Plan for Indoor and Outdoor Air Sampling, 501 Ellis Street, Mountain View, California*, April.

---, 2003b, *Results of Indoor and Outdoor Air Sampling, 501 Ellis Street, Mountain View, California,* 31 July.

---, 2004a, *Results, Fall 2003 Indoor and Outdoor Air Sampling, 501 Ellis Street, Mountain View, California,* 9 January.

---, 2004b, *Results, Winter 2004 Indoor and Outdoor Air Sampling, 501 Ellis Street, Mountain View, California,* 26 February.

---, 2005, *Results of December 2004 and January 2005 Indoor and Outdoor Air Sampling; 501 Ellis Street; Mountain View, California*, 14 April.

Geomatrix, 2003, *Air Sampling Report, 425 National Avenue, Mountain View, California,* prepared for Vishay GSI, Inc. and SUMCO Oregon Corporation, August.

---, 2004, *Pathway Sampling Report, 425 National Avenue, Mountain View, California,* January.

GTI, 1996, *Operation and Maintenance Plan for Soil Vapor Extraction and Treatment System, 350 Ellis Street*, 14 March.

Harding Lawson Associates (HLA), 1988, *Remedial Investigation Report, Remedial Investigation/Feasibility Study, Middlefield-Ellis-Whisman Area, Mountain View, California*, prepared for Fairchild Semiconductor Corporation, Intel Corporation, and Raytheon Company, June.

---, 1993, *Summary of Potential Source Areas, NAS Moffett Field, Santa Clara County, California*, 17 May.

---, 1995, *Summary of Site 9 Potential Sources, Moffett Federal Airfield, MEW Study Area, Mountain View, California*, 2 March.

---, 1999, *Human Health Risk Assessment, 350 Ellis Street, Mountain View, California*, prepared for Veritas Software Corporation, 9 September.

Henschler, D., W. Romen, H.M. Elsässer, D. Reichert, E. Eder, and Z. Radwan, 1980, *Carcinogenicity study of trichloroethylene by long-term inhalation in three animal species*, Arch. Toxicol. 43:237–248.

ICF Clement, 1988, *Endangerment Assessment for the Middlefield-Ellis-Whisman Site in Mountain View, California*, January.

Locus Technologies, 1997, *Health Risk Assessment, 313 Fairchild Drive, Mountain View, California,* prepared for Keenan-Lovewell Ventures and Fairchild Semiconductor Corporation, 15 July.

---, 2000, *Two-Year Evaluation Regional Groundwater Remediation Program, South of U.S. Highway 101, Middlefield-Ellis-Whisman Site, Mountain View, California*, 10 July.

---, 2001, *Two-Year Evaluation Regional Groundwater Remediation Program, North of U.S. Highway 101, Middlefield-Ellis-Whisman Site, Mountain View, California*, April.

---, 2003a, *Revised Work Plan for Air Sampling, Middlefield-Ellis-Whisman Site, Mountain View, California*, April.

---, 2003b, *Five Year Performance Review, Regional Groundwater Remediation Program, Middlefield-Ellis-Whisman Site, Mountain View, California,* 15 December.

---, 2004a, *Results of Air Sampling, 660 National Avenue and Reference and Background Locations, Middlefield-Ellis-Whisman Site, Mountain View, California*, prepared for Raytheon Company, Fairchild Semiconductor Corp, and Schlumberger Technology Corp., January.

---, 2004b, *Results of Air Sampling, Former Fairchild Semiconductor Corporation Facilities,, Middlefield-Ellis-Whisman Site, Mountain View, California.* January.

---, 2004c, *Results of Air Sampling Former Raytheon Company Facilities; Middlefield-Ellis-Whisman Site, Mountain View, California,* prepared for Raytheon Company, January.

---, 2006a, *Work Plan for Supplemental Remedial Investigation and Feasibility Study for Vapor Intrusion, Middlefield-Ellis-Whisman Area and Moffett Field, Mountain View, California,* 12 May.

---, 2006b, Supplemental Remedial Investigation for Vapor Intrusion, Middlefield-Ellis-Whisman Area and Moffett Field, California, 14 August.

---, 2006c, Supplemental Feasibility Study for Vapor Intrusion, Middlefield-Ellis-Whisman Area and Moffett Field, California, 16 October.

---, 2008a, Revised Supplemental Feasibility Study for Vapor Intrusion, Middlefield-Ellis-Whisman Area and Moffett Field, California, 24 January.

---, 2008b, Revised Supplemental Remedial Investigation for Vapor Intrusion, Middlefield-Ellis-Whisman Area and Moffett Field, California, 15 February.

---, 2009, 2008 Annual Progress Report, Raytheon Former Facilities, 350 Ellis Street, Mountain View, California, 15 April.

MACTEC, 2003a, *Work Plan for Long-Term Indoor Air Quality Monitoring; Buildings N-15, N-17, and N-243, NASA Ames Research Center Moffett Field, California,* 28 July.

---, 2003b, *Work Plan Addendum for Long-Term Indoor Air Quality Monitoring; Buildings B-15, B-16, B-17, B-20, and N-243, NASA Ames Research Center Moffett Field, California,* 2 December.

---, 2003c, *Revised Human Health Risk Assessment, NASA Research Park, Moffett Field, California*, 28 July

---, 2004, *Work Plan Addendum for Long-Term Indoor Air Quality Monitoring; Buildings B-15, B-16, B-17, B-20, and N-243, NASA Ames Research Center Moffett Field, California,* 28 July.

Maltoni, C., G. Lefemine, and G. Cotti, 1986, *Experimental research on trichloroethylene carcinogenesis,* Arch. Res. Ind. Carcinogen. 1–393. (not seen, as cited in Maltoni et al. 1988)

Maltoni, C., G. Lefemine, G. Cotti, and G. Perino, 1988, *Long-term carcinogenic bioassays on trichloroethylene administered by inhalation to Sprague-Dawley rats and Swiss B6C3F1 mice,* Ann. NY Acad. Sci. 534:316–351.

NASA Ames, 1994, *Moffett Field Comprehensive Use Plan,* NASA Ames Research Center, Moffett Field, California, September.

---, 2002, *NASA Ames Development Plan Final Programmatic Environmental Impact Statement*, July.

---, 2005a, *Final Report on Long-Term Indoor Air Quality Monitoring; Buildings 15, 16, 17, 20, N-210, and N-243*, NASA Ames Research Center, Moffett Field, California, 5 August.

---, 2005b, *Final Phase 1 Follow-up Monitoring for Buildings 15 and N-210,* NASA Ames Research Center, Moffett Field, California, 5 August.

---, 2005c, *Work Plan for Phase 2 Follow-up Sampling and Analyses for Building N210, and Baseline Sampling for Buildings N-211, N-239A, and N-259,* NASA Ames Research Center, Moffett Field, California, 6 July.

---, 2007, *Confirmation Sampling and Analysis for Building N-210, NASA Ames Research Center, Moffett Field, California,* 6 March.

Naval Energy and Environmental Support Activity (NEESA), 1984, *Initial Assessment Study of Naval Air Station*, Moffett Field, Sunnyvale California, March.

Northgate Environmental Management, Inc., 2007, "Site-Wide Focused Feasibility Study Work Plan, Middlefield-Ellis-Whisman Study Area, Regional Groundwater Remediation Program", 31 July.

NRC, 2006, *Assessing the Human Health Risks of Trichloroethylene, Key Scientific Issues*, July.

OEHHA, 2002, *Air Toxics Hot Spots Program. Risk Assessment Guidelines. Part II: Technical support document for describing available cancer potency factors.* Available at: www.oehha.ca.gov/ air/ hot_spots/pdf/TSDNov2002.pdf. CA Office of Environmental Health Hazard Assessment.

---, 2005, *Toxic criteria database–cancer potency information: trichloroethylene.* Available at: www.oehha.ca.gov/risk/ChemicalDB/cancerpotency.asp?name=Trichloroethylene&number=79016, CA Office of Environmental Health Hazard Assessment.

PES, 2004a, *September and October 2003 Air Sample Results, SMI Holding LLC, 455 and 487 East Middlefield Road, Mountain View, California,* January.

---, 2004b, *2003 Annual Progress Report, SMI Holding LLC, 455, 485/487, and 501/505 East Middlefield Road, Mountain View, California,* 11 February.

---, 2004c, *Work Plan for Enhanced Reductive Dechlorination Implementation, Former Siemens/ Sobrato Properties, 455, 485/487, and 501/505 East Middlefield Road, Mountain View, California*, 2 March.

PRC, 1995, *Final Operable Unit 2-West (Building 88) Project Summary Report, Moffett Federal Airfield, Moffett Field, California*, 9 October.

Rhomberg, L, 2000, *Dose-response analysis of the carcinogenic effects of trichloroethylene in experimental animals*, Environmental Health Perspectives 108(Suppl. 2):343–358.

Smith Technology Corporation, 1997, *Health Risk Assessment, 369 and 441 North Whisman Road and 464 Ellis Street, Mountain View, California*, prepared for 464 Ellis Street Associates LP and Fairchild Semiconductor Corporation, 13 March.

U.S. Department of the Navy and NASA, 1992, *Memorandum of Understanding Between Department of Navy and NASA Regarding MFA, Moffett Field, California*, December.

---, 2003a, *Draft Final Site Characterization and Baseline Human Health Risk Assessment Report for Orion Park and Wescoat Housing Areas; Moffett Community Housing Areas, Moffett Field, California*, October.

---, 2003b, *Final Air Sampling Work Plan for Orion Park and Wescoat Housing Areas; Moffett Community Housing Area, Moffett Field, California*, November.

---, 2004a, *Final November 2003 Air Sampling Results Report, Orion Park and Wescoat Housing Areas*, February.

---, 2004b, *Draft Air Sampling Report for Orion Park and Wescoat Housing Areas; Former NAS Moffett Field, Moffett Field, California*, November.

U.S. District Court for the Northern District of California, 1991. Consent Decree, United States of America vs. Intel Corporation and Raytheon Company, April.

U.S. EPA, 1988, *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final*, Office of Emergency and Remedial Response, October.

---, 1989a, *Record of Decision*, Fairchild, Intel, Raytheon Sites, Middlefield-Ellis-Whisman Study Area, Mountain View, California, June 9.

---, 1989b, *Risk Assessment Guidance for Superfund, Human Health Evaluation Manual*, Office of Emergency and Remedial Response, EPA/540/1-89/002, December

---, 1990a, *Administrative Order for Remedial Design and Remedial Action*, U.S. EPA Docket No 91-4 (106 Order), November 29.

---, 1990b, *Explanation of Significant Differences, Fairchild, Intel, Raytheon Sites, Middlefield-Ellis-Whisman Study Area, Mountain View, California*, September 21.

---, 1992, *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Addendum to Interim Final Guidance*, Office of Solid Waste, July.

---, 1996, *Explanation of Significant Differences, Fairchild, Intel, Raytheon Sites, Middlefield-Ellis-Whisman Study Area, Mountain View, California*, April.

---, 2001, *Trichloroethylene health risk assessment: Synthesis and characterization. EPA/600/P-01/002A,* U.S. EPA, Office of Research and Development, Washington, DC.

---, 2002, *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)*, November. http://www.epa.gov/osw/hazard/correctiveaction/eis/vapor.htm

---, 2004a, *U.S. EPA Region 9 Preliminary Remediation Goals,* U.S. EPA Region 9, San Francisco, CA.

---, 2004b, *Final First Five-Year Review Report for Middlefield-Ellis-Whisman (MEW) Superfund Study Area, Mountain View, California*, September.

---, 2005. U.S. EPA, Office of Air Quality Planning and Standards Table 1. *Prioritized chronic dose-response values (2/28/05),* Available at: www.epa.gov/ttn/atw/toxsource/summary.html, .

---, 2007, *ProUCL Version 4.0 User Guide*, Office of Research and Development, April.

Weiss Associates, 2004, *2003 Air Sampling Report; Former Intel Mountain View Facility, 355/365 East Middlefield Road, Mountain View, California,* January.

---, 2005, *Workplan for Enhanced in-situ Bioremediation Pilot Test for Former Intel Facility, 365 East Middlefield Road, Mountain View, California*, prepared for Intel Corporation and Raytheon Company, 24 May

---, 2006, *Second Quarterly Status Report, Enhanced In-Situ Biodegradation Pilot Test, Former Intel Facility, 365 East Middlefield Road, Mountain View, California*, prepared for Intel Corporation and Raytheon Company 14 April.

TABLES

TABLE 4-4
NUMBER OF AIR SAMPLES ANALYZED
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Company/Location	Buildings Sampled	Indoor	Outdoor	Pathway	Total
Fairchild Semiconductor Corporation	13	267	88	46	401
Intel Corporation	1	26	9	7	42
NASA	9	955	210	40	1205
Navy (residential)	3	20	12	13	45
NEC Electronics	1	35	10	5	50
Raytheon Company	7	212	60	103	375
SMI Holding LLC	2	39	13	8	60
Vishay/SUMCO	1	12	4	16	32
Residential	28	142	25	65	232
Other Commercial Buildings	13	53	8	5	66
Background/Reference			351		351
Total	78	1761	790	308	2859

Notes:

1. AM and PM Samples (collected in the morning and afternoon at one location) are counted as one sample

2. The TAGA results are not counted in this summary table

3. Co-located samples are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count

TABLE 4-5
SUMMARY OF TCE CONCENTRATIONS IN INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINBGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Indoor						Outdoor						Comments
			No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	
313 Fairchild Drive	-	1	18	ND 0.18	0.56	18	0	0	8	ND 0.15	ND 0.24	8	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
323 Fairchild Drive	-	1	20	ND 0.18	0.5	20	0	0	4	ND 0.17	ND 0.18	4	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
545 N. Whisman Rd.	-	1	21	ND 0.15	3.4	19	2	0	8	ND 0.18	0.94	8	0	0	One indoor sample and its duplicate showed TCE concentrations higher than the interim action level of 2.7 ug/m3. Five other samples at the same location showed ND.
515 N. Whisman Rd.	-	1	18	ND 0.18	0.23	18	0	0	5	ND 0.17	ND 0.19	5	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
644 National Ave.	Before Mitigation	B	8	190	490	0	8	0	6	0.73	2	6	0	0	After the spring 2003 sampling event, sumps in the unoccupied basement that collect groundwater were sealed, and two exhaust fans were installed in the basement to exhaust the air. Openings in the floor between the basement and the first floor and luvers were installed in the outside plenum to facilitate flow of fresh air when the fans are operating. Confirmation samples in the first floor and second floor showed significant decreases in TCE concentrations to below 2.7 ug/m3. The basement showed significant decrease in concentrations, but TCE remains above 2.7 ug/m3. The building was sold and vacated in 2007 and will be demolished in 2008.
		1&2	11	15	94	0	11	0							
	After mitigation (sealing of sumps and installation of exhaust system in the basement)	B	9	14	43	0	9	0	6	ND 0.19	0.68	6	0	0	
		1&2	8	ND 0.2	0.59	8	0	0							
401 National Ave.	Before Mitigation	1	13	0.14	51	6	7	0	7	ND 0.18	ND 0.29	7	0	0	Mitigation measures include sealing of conduits in the utility room, and operation of an existing exhaust fan in the utility room. Luvers between the ventilated utility room and the central offices were opened to enhance air circulation in the internal offices. After mitigation measures, all indoor TCE air concentrations were less than 2.7 ug/m3.
	After mitigation (sealing of sumps and installation of exhaust system in utility room)	1	11	ND 0.20	2.2	11	0	0	5	0.065	0.079	5	0	0	
464 Ellis St.	-	1	20	ND 0.15	0.27	20	0	0	4	ND 0.18	ND 0.19	4	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
466 Ellis St.	-	1	17	ND 0.18	0.21 J	17	0	0	7	ND 0.15	ND 0.19	7	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
468 Ellis St.	-	1	19	ND 0.15	0.29	19	0	0	6	ND 0.17	ND 0.19	6	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.

TABLE 4-5
SUMMARY OF TCE CONCENTRATIONS IN INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINBGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Indoor						Outdoor						Comments
			No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	
389 N. Whisman Rd.	-	1	18	ND 0.18	2.1	18	0	0	5	ND 0.17	ND 0.19	5	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
399 N. Whisman Rd.	-	1	18	ND 0.15	ND 0.19	18	0	0	6	ND 0.17	ND 0.20	6	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
369 N. Whisman Rd.	-	1	19	ND 0.17	1.6	19	0	0	4	ND 0.18	ND 0.19	4	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
379 N. Whisman Rd.	-	1	19	ND 0.15	0.19 J	19	0	0	7	ND 0.18	ND 0.19	7	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
660 National Ave.	Before mitigation	1	14	0.45	9	9	5	0	2	0.19 J	0.28	2	0	0	Mitigation measures included refurbishing the ventilation system to induce more makeup air. Indoor air samples collected after implementation of mitigation measures showed non-detectable levels for TCE.
	After mitigation (ventilation system was refurbished)	1	6	ND 0.18	ND 0.19	6	0	0	1	ND 0.18	ND 0.18	1	0	0	The building was sold and vacated in 2007 and will be demolished in 2008.
401 E. Middlefield	Ventilation system on, building unoccupied,	1	17	ND 0.17	0.70	17	0	0	6	ND 0.17	ND 0.19	6	0	0	The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE higher than 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, all TCE concentrations were below 2.7 ug/m3.
	Ventilation system off, building unoccupied	1	11	4.1	7.6	0	11	0	2	ND 0.20	0.23	2	0	0	
415 E. Middlefield	Ventilation system on, building unoccupied,	1	17	ND 0.19	4.8	16	1	0	3	ND 0.19	0.25	3	0	0	The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE higher than 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, all TCE concentrations were below 2.7 ug/m3.
	Ventilation system off, building unoccupied	1	10	5.6	7.6	0	10	0	Same as 401 E. Middlefield Road						
370 Ellis Street Bldg A	Weekend	1	21	ND 0.20	3.7	19	2	0	4	ND 0.19	0.29	4	0	0	Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on weekdays. One indoor location showed TCE up to 3.7 ug/m3 on the weekend. When samples were collected on a weekday at the same location, the maximum TCE concentration was 0.45 ug/m3, which is lower than the interim action level of 2.7 ug/m3.
	Weekday	1	3	0.35	0.59	3	0	0	-	-	-	-	-	-	

Page 2 of 5

TABLE 4-5
SUMMARY OF TCE CONCENTRATIONS IN INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINBGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Indoor						Outdoor						Comments
			No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	
370 Ellis Street Bldg B	Weekend	1	23	0.16 J	8.0	16	7	0	7	ND 0.19	2.0	7	0	0	Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on a weekday. Three indoor locations sampled on the weekends showed TCE up to 5.0, 3.0, and 8.0 ug/m3. When samples were collected on weekdays at these same location, the TCE concentration was non-detect in all three.
	Weekday	1	6	ND 0.17	0.26 J	6	0	0	3	ND 0.16	ND 0.19	3	0	0	
380 Ellis Street Bldg C	Weekend	1	43	ND 0.19	2.8	42	1	0	16	ND 0.15	ND 0.22	16	0	0	Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two round of sampling were performed on a weekday. Only one weekend sample at an indoor location showed TCE of 2.8 ug/m3. The other samples collected on different days at the same location in the weekend and weekday showed TCE ranging between 0.24 and 0.32 ug/m3, which is lower than the interim action level of 2.7 ug/m3.
	Weekday	1	6	0.17	0.44	6	0	0	-	-	-	-	-	-	
380 Ellis Street Bldg D	Weekend	1	23	ND 0.18	0.86	23	0	0	4	ND 0.19	ND 0.20	4	0	0	The HVAC system operates in this building on the weekend. All samples showed TCE concentrations lower than the interim action level of 2.7 ug/m3.
	Weekday	1	4	0.34	0.46	4	0	0	1	ND 0.15	ND 0.15	1	0	0	
350 Ellis Street Bldg E	Weekend	1	19	ND 0.15	0.77	19	0	0	8	ND 0.18	18	7	1	0	Because of access demands, four rounds of sampling were conducted on the weekend. The HVAC operates only in the Gym area on the weekend. Alls samples showed TCE concentrations less than the interim action level of 2.7 ug/m3. Weeday samples did not detect TCE.
	Weekday	1	4	ND 0.16	ND 0.17	4	0	0	3	ND 0.15	ND 0.22	3	0	0	
425 National Avenue	Unfinished unoccupied building with no ventilation system	1	12	7.1	8.7	0	12	0	4	0.078 J	0.17 J	4	0	0	Building is not finished, unoccupied, and does not have a ventilation system installed.
645 National Avenue		1	10	0.15 J	2.0	10	0	0	1	ND 0.020	ND 0.20	1	0	0	Building divided in two. Back warehouses are not ventilated.
670 National Avenue		1	7	2.2	7.5	2	5	0	1	ND 0.19	ND 0.19	1	0	0	Back warehouse is not ventilated. The front portion of the building does not have sufficient outside makeup air. The building was sold and vacated in 2007 and will be demolished in 2008.
555 Ellis Street		1	4	ND 0.15	0.17	4	0	0	1	ND 0.18	ND 0.18	1	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.

TABLE 4-5
SUMMARY OF TCE CONCENTRATIONS IN INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINBGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Indoor						Outdoor						Comments
			No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	
460 E. Middlefield Road		1	12	ND 0.17	ND 0.27	12	0	0	2	ND 0.17	ND 0.27	2	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
355/365 E. Middlefield Roa	Before mitigation	1	14	0.14 J	1.4	14	0	0	4	0.034 J	0.34	4	0	0	All indoor samples showed TCE concentrations less than 2.7 ug/m3. Ventilation system was retrofitted to increase outside makeup air because of TCE concentrations found in pathway samples collected in cracks. Confirmation samples showed TCE in the indoor samples (and pathway samples) less than 2.7 ug/m3.
	After mitigation (sealing of cracks and refurbishing ventilation system to increase makeup air)	1	12	0.017J	0.30	12	0	0	5	0.11J	0.66	5	0	0	
455 E. Middlefield Road	-	1	21	ND 0.11	1.7	21	0	0	9	ND 0.11	0.24	9	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3. One TCE samples showed TCE of 1.7 ug/m3 which appears to be anomalous.
487 E. Middlefield Road	-	1	18	ND 0.11	0.22	18	0	0	4	ND 0.11	ND 0.18	4	0	0	All indoor samples showed TCE concentrations less than 2.7 ug/m3. Regardless, some open conduits in the utility room were sealed.
501 Ellis Street	Portion of the building is unoccupied. The HVAC system was not operating in the unoccupied portion of the building in fall 2003.	1	35	0.18	11	30	5	0	10	0.058 J	0.29	10	0	0	Four samples (including duplicates) at one location in fall 2003 showed TCE ranging from 4.5 to 5.8 ug/m3. Former and subsequent samples at the same location showed TCE less than 2.7 ug/m3, ranging from ND 0.19 to 1.7 ug/m3. The fall 2003 samples were attributed to improper operation of the HVAC system in the vacant portion of the building where these samples were collected. A sample at a different location showed 11 ug/m3 which is anomalous. EPA's co-located sample did not detect TCE. All subsequent samples at the same location did not detect TCE.
15	Before mitigation	1	300	ND 0.01	7.2	270	30	0	146*	0.03	6.4	141	5	0	All samples subsequent to retrofitting the HVAC system showed TCE concentrations less than 2.7 ug/m3. HVAC system paramaters changed (% fresh air/ventilation rate). HVAC system was not physically modified.
	After mitigation (refurbish ventilation system to increase makeup air)	1	50	0.160	0.61	50	0	0	29*	0.04	3.7	28	1	0	
16	No mechanical ventilation	1	57	0.08	15.1	24	33	0	26*	0.03	0.5	26	0	0	NASA is planning a remedial action for the building.
17	Unoccupied and unventilated basement	B	166	ND 0.005	3.1	165	1	0	150*	0.03	6.4	145	5	0	Of the 191 discrete indoor air samples, all but one sample (collected in the unoccupied basement), showed TCE concentrations less than 2.7 ug/m3. Outdoor air samples showed at certain times TCE greater than 2.7 ug/m3.
	Unventilated floor	1	158	0.044	53	157	1	0	150*	0.03	6.4	145	5	0	
20	Unoccupied and unventilated building	1	55	0.19	9.7	22	33	0	36*	0.04	6.4	35	1	0	
N210	-	1&2	86	0.037	176	43	43	0	21	0.04	2.7	20	1	0	In 2006, NASA retrofitted the ventilation system in the building. All indoor air TCE concentrations were reduced to below 2.7 ug/m3.
N211	-	1&2	13	ND 0.16	0.42	13	0	0	4	0.47	1.2	4	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
N243	-	B	43	ND 0.01	0.46	43	0	0	8	0.047	0.5	8	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
	-	1	15	0.061	0.44	15	0	0	8	0.047	0.5	8	0	0	

TABLE 4-5
SUMMARY OF TCE CONCENTRATIONS IN INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINBGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Indoor						Outdoor						Comments
			No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples 2.7<TCE <537	No. of Samples TCE>537	
N239A	-	1	7	0.45	0.99	7	0	0	4	0.47	1.2	4	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.
N259	-	1	5	0.37	0.6	5	0	0	2	0.50	0.51	2	0	0	Indoor air samples showed TCE concentrations less then 2.7 ug/m3.

Notes:
1. AM and PM samples (samples collected in the morning and afternoon at one location) are counted as one sample
2. For NASA data, only the 24-hr samples were used in this summary.
3. The date range of outdoor data is the same as that for the indoor data
4. The TAGA results are not counted in this summary table
5. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count.
6. Concentrations are in micrograms per cubic meter (ug/m3).
7. One outdoor location served as outdoor samples for buildings 15, 16, 17 and 20. Only samples collected on the same day as the indoor samples are associated with each building.
8. ND denotes not detected. J denotes estimated value below the detection limit.

TABLE 4-6
SUMMARY OF TCE CONCENTRATIONS IN PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA

Building Sampled	Sampling Conditions	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples TCE >2.7	Comments
313 Fairchild Drive	-	6	ND 0.17	3.1	5	1	One pathway sample showed TCE at 3.1 ug/m3. Four other samples at the same location showed TCE between 0.17 and 0.7 ug/m3.
323 Fairchild Drive	-	8	ND 0.15	0.72	8	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
545 N. Whisman Rd.	-	2	ND 0.17	ND 0.18	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
515 N. Whisman Rd.	-	3	ND 0.17	0.39	3	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
644 N. Whisman Rd.	-	-	-	-	-	-	None collected
401 National Ave.	Before Mitigation	5	5.0	74	0	5	All indoor air samples were below 2.7 ug/m3 after implementation of the mitigation measures.
	After mitigation (sealing of conduits and installation of exhaust system in utility room)	2	2.3	5.6	1	1	
464 Ellis St.	-	3	ND 0.18	ND 0.19	3	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
466 Ellis St.	-	2	ND 0.18	ND 0.19	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
468 Ellis St.	-	5	ND 0.15	ND 0.20	5	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
389 N. Whisman Rd.	-	2	ND 0.17	ND 0.18	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
399 N. Whisman Rd.	-	3	ND 0.16	ND 0.19	3	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
369 N. Whisman Rd.	-	3	ND 0.19	ND 0.19	3	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
379 N. Whisman Rd.	-	2	ND 0.17	ND 0.19	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
660 National Ave.	-	-	-	-	-	-	None collected
401 E. Middlefield	-	2	ND 0.17	ND 0.18	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
415 E. Middlefield With Ventilatio	-	1	0.26	0.26	1	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.

TABLE 4-6
SUMMARY OF TCE CONCENTRATIONS IN PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA

Building Sampled	Sampling Conditions	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples TCE >2.7	Comments
370 Ellis Street Bldg A	Pathway 1 before mitigation	4	150	170	0	4	Pathway samples showed TCE concentrations greater than 2.7 in two unoccupied utility rooms. In the first utility room (pathway 1), conduits were sealed and an air purification system was installed. The utility room is not ventilated, but instead has an air recirculation system in the room for cooling purposes. After mitigation, TCE was reduced to 0.48 ug/m3 by 2006. In the other utility room, an air purification system was installed and TCE reduced to 2.2 ug/m3 by 2006.
	Pathway 1 after sealing conduits	5	6.4	13	0	5	
	Pathway 1 after air purifier	12	0.34	8.4	10	2	
	Pathway 2 after sealing conduits	5	2.1	5.8	1	4	
	Pathway 2 after air purifier	5	2.2	3	3	2	
370 Ellis Street Bldg B	Pathway 1 before mitigation	3	0.86	1.6	3	0	Pathway samples showed TCE concentrations greater than 2.7 in an unoccupied utility room. The utility room is not ventilated, but instead has an air recirculation system in the room for cooling purposes. An air purification system was installed and TCE concentrations were reduced from a maximum of 18 ug/m3 to 0.59 ug/m3.
	Pathway 1 after sealing conduits	7	0.51	5.9	5	2	
	Pathway 2 after sealing conduits	5	0.25	18	2	3	
	Pathway 2 after air purifier	4	ND 0.16	0.59	4	0	
380 Ellis Street Bldg Ce	Pathway 1 before mitigation	2	200	310	0	2	Pathway samples showed TCE concentrations greater than 2.7 in an unoccupied utility room. Conduits were sealed and an air purification system was installed. The utility room is not ventilated, but instead has an air recirculation system in the room for cooling purposes. After mitigation, TCE was reduced to 0.42 ug/m3.
	Pathway 1 after sealing conduits	6	3.8	6.5	0	6	
	Pathway 1 after air purifier	3	0.2	0.67	3	0	
	Pathway 2 after sealing conduits	4	ND 0.19	0.56	4	0	
	Pathway 3 before mitigation	2	ND 0.18	ND 0.20	2	0	
	Pathway 3 after sealing conduits	4	ND 0.16	0.79	4	0	

TABLE 4-6
SUMMARY OF TCE CONCENTRATIONS IN PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA

Building Sampled	Sampling Conditions	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples TCE >2.7	Comments
380 Ellis Street Bldg D	Pathway 1 before mitigation	3	1.2	5.1	1	2	Pathway samples showed TCE concentrations greater than 2.7 in an unoccupied utility room. The utility room is not ventilated, but instead has an air recirculation system in the room for cooling purposes. After sealing conduits in the room, TCE concentrations were reduced from a maximum of 5.1 ug/m3 to below 2.7 ug/m3.
	Pathway 1 after sealing conduits	6	0.92	2.0	6	0	
	Pathway 2 after sealing conduits	5	0.63	1.5	5	0	
350 Ellis Street Bldg E	Pathway 1 before mitigation	3	23	48	0	3	Pathway samples showed TCE concentrations greater than 2.7 in an unoccupied utility room. The utility room is not ventilated, but instead has an air recirculation system in the room for cooling purposes. After sealing conduits in the room, TCE concentrations were reduced from a maximum of 48 ug/m3 to below 2.7 ug/m3.
	Pathway 1 after sealing conduits	6	ND 0.17	0.64	6	0	
	Pathway 2 after sealing conduits	5	0.27	3.7	3	2	
425 National Avenue	Unfinished unoccupied building with no ventilation system	16	6.0	18	0	16	Pathway samples showed TCE concentrations greater than 2.7 ug/m3 in all 16 sampling locations. A statistical analysis of the pathway sample results showed that the elevator shaft was the likely predominant vapor intrusion pathway. The bottom of the elevator shaft was subsequently sealed to prevent groundwater intrusion and the top was sealed to prevent vapor intrusion. Building is not finished, unoccupied, and does not have a ventilation system installed.
645 National Avenue	-	-	-	-	-	-	
670 National Avenue	-	-	-	-	-	-	
555 Ellis Street	-	3	ND 0.17	1.8	3	0	
460 E. Middlefield Road	-	2	ND 0.17	ND 0.27	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
355/365 E. Middlefield Road	Before Mitigation	4	0.37	49	2	2	Two pathway samples were collected, one in a crack, and the other in a bathroom. The sample in the crack showed TCE of up to 49 ug/m3. However, all indoor air samples showed TCE less than 2.7 ug/m3. The HVAC system was retrofitted to allow additional makeup air, and the followup pathway samples showed TCE less than 2.7 ug/m3.
	After mitigation (sealing of cracks and refurbishing ventilation system to increase makeup air)	3	0.19	0.62	3	0	

TABLE 4-6
SUMMARY OF TCE CONCENTRATIONS IN PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA

Building Sampled	Sampling Conditions	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples TCE >2.7	Comments
455 E. Middlefield Road	-	4	0.12 J	1.2	4	0	
487 E. Middlefield Road	Before Mitigation	2	0.94	1.1	2	0	Although pathway samples showed TCE less than 2.7 ug/m3, some conduits were sealed in the unoccupied utility room where the samples were collected. Due to the potential to inadvertently interfere with building operations, the cover to the electrical panel was not removed and any conduits beneath this were not sealed.
	After sealing some conduits	2	1.1	1.2	2	0	
501 Ellis Street	-	9	ND 0.18	33	6	3	One pathway sample in the unoccupied server room showed TCE of 2.8 ug/m3. Subsequent pathway samples from the same location did not detect TCE. The highest concentration of 33 ug/m3 was detected in a sample collected by EPA from inside a pipe.
NASA Building 15	-	-	-	-	-	-	None collected
NASA Building 16	-	-	-	-	-	-	None collected
NASA Building 17	-	-	-	-	-	-	None collected
NASA Building 20	Unoccupied and unventilated building. Samples collected in crawlspace	3	27	35	0	3	Samples were collected from the crawlspace.
NASA Building N210	-	20	0.25	1818	6	14	Pathway samples were collected from under the raised floor, the pit, and other unoccupied locations. NASA retrofitted the ventilation system in the building TCE concentrations in all indoor air samples were reduced to below 2.7 ug/m3.
NASA Building N211	-	-	-	-	-	-	None collected
NASA Building N243	-	13	0.66	1.1	13	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.

TABLE 4-6
SUMMARY OF TCE CONCENTRATIONS IN PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA

Building Sampled	Sampling Conditions	No. of Samples	Minimum TCE	Maximum TCE	No. of Samples TCE<2.7	No. of Samples TCE >2.7	Comments
NASA Building N239A	-	2	0.60	0.66	2	0	Pathway samples showed TCE concentrations less then 2.7 ug/m3.
NASA Building N259	-	-	-	-	-	-	None collected

Notes:
1. AM and PM samples (samples collected in the morning and afternoon at one location) are counted as one sample
2. For NASA data, only the 24-hr samples were used in this summary.
3. The TAGA results are not counted in this summary table
4. Concentrations are in ug/m3.
5. ND denotes not detected. J denotes estimated value below the detection limit.
6. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count.

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
313 Fairchild Drive	313AMB4	05/06/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.370	ND	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
313 Fairchild Drive	313AMB1	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.320		0.280	
313 Fairchild Drive	313AMB2	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.250		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.400		0.270	
313 Fairchild Drive	313AMB3	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.280		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.660		0.300	
313 Fairchild Drive	313AMB4	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.430		0.280	
313 Fairchild Drive	313AMB1	05/13/03	Indoor	10	Primary	0.300		0.140	ND	0.410		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.550		0.190	ND
313 Fairchild Drive	313AMB2	05/13/03	Indoor	10	Primary	0.300		0.130	ND	0.410		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.680		0.180	
313 Fairchild Drive	313AMB3	05/13/03	Indoor	10	Primary	0.220		0.140	ND	0.320		0.180	ND	0.064		0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.530		0.200	
313 Fairchild Drive	313AMB4	05/13/03	Indoor	10	Primary	0.240		0.140	ND	0.330		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.490		0.190	ND
313 Fairchild Drive	313AMB3D	10/02/03	Indoor	10	Duplicate	0.170	J	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.620		0.190	ND
313 Fairchild Drive	313AMB1	10/02/03	Indoor	10	Primary	0.240		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.650		0.190	ND
313 Fairchild Drive	313AMB2	10/02/03	Indoor	10	Primary	0.170	ND		ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.570		0.190	ND
313 Fairchild Drive	313AMB3	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
313 Fairchild Drive	313AMB4	10/02/03	Indoor	10	Primary	0.190		0.140	ND	0.850		0.560		0.045	ND	0.210	ND	0.070	ND	0.200		0.700	ND	0.610		0.190	ND
313 Fairchild Drive	313AMB1	10/07/03	Indoor	10	Primary	0.400		0.140	ND	0.780		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
313 Fairchild Drive	313AMB2	10/07/03	Indoor	10	Primary	0.430		0.140	ND	0.850		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.640		0.190	ND
313 Fairchild Drive	313AMB3	10/07/03	Indoor	10	Primary	0.350		0.150	ND	0.730		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.580		0.200	ND
313 Fairchild Drive	313AMB4	10/07/03	Indoor	10	Primary	0.360		0.150	ND	0.750		0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.600		0.200	ND
313 Fairchild Drive	313HVAC1 A	05/06/03	Outdoor	10	Primary	0.200		0.110	ND	0.380		0.150	ND	0.035	ND	0.160	ND	0.054	ND	0.110	ND	0.540	ND	0.760		0.260	
313 Fairchild Drive	313HVAC1 B	05/06/03	Outdoor	10	Primary	0.220	ND	0.180	ND	0.300	ND	0.240	ND	0.056	ND	0.260	ND	0.087	ND	0.170	ND	0.870	ND	0.360		0.240	J
313 Fairchild Drive	313HVAC2	05/06/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.730		0.260	
313 Fairchild Drive	313HVAC2D	05/13/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.520		0.200	
313 Fairchild Drive	313HVAC1	05/13/03	Outdoor	10	Primary	0.220		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.260	ND	0.320	
313 Fairchild Drive	313HVAC2	05/13/03	Outdoor	10	Primary	0.190		0.130	ND	1.000		0.180	ND	0.043	ND	2.000		0.066	ND	0.130	ND	0.660	ND	0.530		0.180	J
313 Fairchild Drive	313HVAC1	10/02/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.600		0.190	ND
313 Fairchild Drive	313HVAC1	10/07/03	Outdoor	10	Primary	0.240		0.140	ND	0.440		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.550		0.190	ND
					Number of Samples	18		17		18		18		18		18		18		18		17		18		18	
	Indoor				Number of Detects	11		0		11		1		1		0		0		1		0		17		6	
					Minimum Detection	0.17		0		0.25		0.56		0.064		0		0		0.2		0		0.32		0.18	
					Maximum Detection	0.43		0		0.85		0.56		0.064		0		0		0.2		0		0.68		0.3	
					Number of Samples	8		8		8		8		8		8		8		8		8		8		8	
	Outdoor				Number of Detects	4		0		3		0		0		1		0		0		0		7		6	
					Minimum Detection	0.19		0		0.38		0		0		2		0		0		0		0.36		0.18	
					Maximum Detection	0.24		0		1		0		0		2		0		0		0		0.76		0.32	
323 Fairchild Drive	323AMB4D	05/06/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.270	J
323 Fairchild Drive	323AMB1	05/06/03	Indoor	10	Primary	0.200		0.130	ND	0.250		0.500		0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.240	ND	0.170	ND
323 Fairchild Drive	323AMB2	05/06/03	Indoor	10	Primary	0.190		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.260	ND	0.300	J
323 Fairchild Drive	323AMB3	05/06/03	Indoor	10	Primary	0.190		0.140	ND	0.330		0.240		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.320		0.190	ND
323 Fairchild Drive	323AMB4	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.270	J
323 Fairchild Drive	323AMB3D	05/13/03	Indoor	10	Duplicate	0.330		0.130	ND	0.300		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.490		0.180	ND
323 Fairchild Drive	323AMB4	05/13/03	Indoor	10	Duplicate	0.180		0.140	ND	0.280		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.500		0.190	ND
323 Fairchild Drive	323AMB4	05/13/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.270	J	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
323 Fairchild Drive	323AMB1	05/13/03	Indoor	10	Primary	0.280		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.490		0.180	J
323 Fairchild Drive	323AMB2	05/13/03	Indoor	10	Primary	0.250		0.130	ND	0.220	J	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.480		0.180	ND
323 Fairchild Drive	323AMB3	05/13/03	Indoor	10	Primary	0.300		0.130	ND	0.300		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.500		0.200	
323 Fairchild Drive	323AMB4	05/13/03	Indoor	10	Primary	0.180		0.140	ND	0.270		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.500		0.190	ND
323 Fairchild Drive	323AMB1	10/02/03	Indoor	10	Primary	0.250		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.550		0.200	ND
323 Fairchild Drive	323AMB2	10/02/03	Indoor	10	Primary	0.220		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.570		0.200	ND
323 Fairchild Drive	323AMB3	10/02/03	Indoor	10	Primary	0.250		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.550		0.190	ND
323 Fairchild Drive	323AMB4	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.570		0.190	ND
323 Fairchild Drive	323AMB2D	10/07/03	Indoor	10	Duplicate	0.340		0.140	ND	0.540		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.550		0.190	ND
323 Fairchild Drive	323AMB2	10/07/03	Indoor	10	Primary	0.350		0.140	ND	0.560		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
323 Fairchild Drive	323AMB3	10/07/03	Indoor	10	Primary	0.460		0.140	ND	0.520		0.190	J	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.590		0.190	ND
323 Fairchild Drive	323AMB4	10/07/03	Indoor	10	Primary	0.280		0.150	ND	0.480		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.570		0.200	ND
323 Fairchild Drive	323HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.230		0.680	ND	0.760		0.260	J
323 Fairchild Drive	323HVAC2	05/06/03	Outdoor	10	Primary	0.180		0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.790		0.280	J
323 Fairchild Drive	323HVAC1	05/13/03	Outdoor	10	Primary	0.160	ND	0.130	ND	0.230	ND	0.180	ND	0.083		0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.540		0.180	ND
323 Fairchild Drive	323HVAC2	05/13/03	Outdoor	10	Primary	0.240		0.130	ND	0.250		0.180	ND	0.042	ND	0.240		0.065	ND	0.130	ND	0.650	ND	0.660		0.250	
					Number of Samples	20		20		20		20		20		20		20		20		19		20		20	
	Indoor				Number of Detects	16		0		12		3		0		0		0		0		0		15		5	
					Minimum Detection	0.18		0		0.22		0.19		0		0		0		0		0		0.32		0.18	
					Maximum Detection	0.46		0		0.56		0.5		0		0		0		0		0		0.59		0.3	
					Number of Samples	4		4		4		4		4		4		4		4		4		4		4	
	Outdoor				Number of Detects	2		0		1		0		1		1		0		1		0		4		3	
					Minimum Detection	0.18		0		0.25		0		0.083		0.24		0		0.23		0		0.54		0.25	
					Maximum Detection	0.24		0		0.25		0		0.083		0.24		0		0.23		0		0.79		0.28	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
369 N. Whisman Rd.	369AMB2	05/06/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.370	ND	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
369 N. Whisman Rd.	369AMB1	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.770		0.210	
369 N. Whisman Rd.	369AMB2	05/06/03	Indoor	10	Primary	0.180		0.130	ND	0.330		0.170	ND	0.041	ND	0.240	ND	0.064	ND	0.130	ND	0.640	ND	0.290		0.270	
369 N. Whisman Rd.	369AMB3	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.680		0.230	
369 N. Whisman Rd.	369AMB4	05/06/03	Indoor	10	Primary	0.160		0.130	ND	0.220	ND	0.170	J	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.990		0.180	ND
369 N. Whisman Rd.	369AMB1	05/13/03	Indoor	10	Primary	0.260		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.440		0.200	
369 N. Whisman Rd.	369AMB2	05/13/03	Indoor	10	Primary	0.260		0.880		0.300		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.460		0.220	
369 N. Whisman Rd.	369AMB3	05/13/03	Indoor	10	Primary	0.300		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.460		0.190	
369 N. Whisman Rd.	369AMB4	05/13/03	Indoor	10	Primary	0.320		0.140	ND	0.260		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.610		0.210	
369 N. Whisman Rd.	369AMB2	10/02/03	Indoor	10	Duplicate-EPA	0.160	J	0.110	ND	0.190	ND	0.400		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		2.400		0.210	J
369 N. Whisman Rd.	369AMB1	10/02/03	Indoor	10	Primary	0.180		0.140	ND	0.750		0.530		0.120		0.210	ND	0.069	ND	0.190		0.690	ND	1.800		0.220	
369 N. Whisman Rd.	369AMB2	10/02/03	Indoor	10	Primary	0.270		0.140	ND	0.310		0.330		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	2.300		0.200	
369 N. Whisman Rd.	369AMB3	10/02/03	Indoor	10	Primary	0.180		0.140	ND	0.400		0.410		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	2.200		0.240	
369 N. Whisman Rd.	369AMB4	10/02/03	Indoor	10	Primary	0.220		0.140	ND	0.240	ND	0.670		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	3.000		0.280	
369 N. Whisman Rd.	369AMB3D	10/07/03	Indoor	10	Duplicate	0.460		0.140	ND	0.490		0.340		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.980		0.210	
369 N. Whisman Rd.	369AMB1	10/07/03	Indoor	10	Primary	0.410		0.140	ND	2.200		1.600		0.044	ND	0.200	ND	0.068	ND	0.580		0.680	ND	0.860		0.330	
369 N. Whisman Rd.	369AMB2	10/07/03	Indoor	10	Primary	0.460		0.140	ND	0.440		0.280		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	1.000		0.190	
369 N. Whisman Rd.	369AMB3	10/07/03	Indoor	10	Primary	0.420		0.140	ND	0.450		0.330		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.950		0.200	
369 N. Whisman Rd.	369AMB4	10/07/03	Indoor	10	Primary	0.430		0.140	ND	0.460		0.320		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	1.000		0.240	
369 N. Whisman Rd.	369HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.490		0.190	ND
369 N. Whisman Rd.	369HVAC2	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.470		0.190	ND
369 N. Whisman Rd.	369HVAC1	05/13/03	Outdoor	10	Primary	0.180		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.630		0.190	
369 N. Whisman Rd.	369HVAC2	05/13/03	Outdoor	10	Primary	0.180		0.140	ND	0.230	J	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.640		0.200	
					Number of Samples	19		19		19		19		19		19		19		19		17		19		19	
	Indoor				Number of Detects	16		1		11		11		1		0		0		2		0		18		17	
					Minimum Detection	0.16		0.88		0.26		0.17		0.12		0		0		0.19		0		0.29		0.19	
					Maximum Detection	0.46		0.88		2.2		1.6		0.12		0		0		0.58		0		3		0.33	
					Number of Samples	4		4		4		4		4		4		4		4		4		4		4	
	Outdoor				Number of Detects	2		0		1		0		0		0		0		0		0		4		2	
					Minimum Detection	0.18		0		0.23		0		0		0		0		0		0		0.47		0.19	
					Maximum Detection	0.18		0		0.23		0		0		0		0		0		0		0.64		0.2	
379 N. Whisman Rd.	379AMB2	05/06/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.370	ND	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
379 N. Whisman Rd.	379AMB1	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.610		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.440		0.190	ND
379 N. Whisman Rd.	379AMB2	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.410		0.190	ND
379 N. Whisman Rd.	379AMB3	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.430		0.190	ND
379 N. Whisman Rd.	379AMB4	05/06/03	Indoor	10	Primary	0.150	ND	0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.420		0.170	ND
379 N. Whisman Rd.	379AMB3D	05/13/03	Indoor	10	Duplicate	0.240		0.130	ND	0.260		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.380		0.280	
379 N. Whisman Rd.	379AMB1	05/13/03	Indoor	10	Primary	0.260		0.130	ND	0.240		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.500		0.200	
379 N. Whisman Rd.	379AMB2	05/13/03	Indoor	10	Primary	0.260		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.520	ND	0.069	ND	0.140	ND	0.690	ND	0.420		0.190	J
379 N. Whisman Rd.	379AMB3	05/13/03	Indoor	10	Primary	0.240		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.400		0.290	
379 N. Whisman Rd.	379AMB4	05/13/03	Indoor	10	Primary	0.230		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.470		0.190	
379 N. Whisman Rd.	379AMB1	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
379 N. Whisman Rd.	379AMB2	10/02/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.620		0.180	ND
379 N. Whisman Rd.	379AMB3	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
379 N. Whisman Rd.	379AMB4	10/02/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.650		0.200	ND
379 N. Whisman Rd.	379AMB4	10/07/03	Indoor	10	Duplicate-EPA	0.250	J	0.110	ND	0.480		0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.620		0.170	J
379 N. Whisman Rd.	379AMB1	10/07/03	Indoor	10	Primary	0.350		0.140	ND	0.720		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.520		0.190	ND
379 N. Whisman Rd.	379AMB2	10/07/03	Indoor	10	Primary	0.340		0.140	ND	0.690		0.190	J	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.520		0.190	ND
379 N. Whisman Rd.	379AMB3	10/07/03	Indoor	10	Primary	0.310		0.140	ND	0.610		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.500		0.190	ND
379 N. Whisman Rd.	379AMB4	10/07/03	Indoor	10	Primary	0.310		0.140	ND	0.590		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.480		0.190	ND
379 N. Whisman Rd.	379HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.470		0.190	ND
379 N. Whisman Rd.	379HVAC2	05/06/03	Outdoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.260	
379 N. Whisman Rd.	379HVAC1	05/13/03	Outdoor	10	Primary	0.190		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.490		0.190	
379 N. Whisman Rd.	379HVAC2	05/13/03	Outdoor	10	Primary	0.190		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.440		0.190	ND
379 N. Whisman Rd.	379HVAC2	10/02/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.770		0.190	ND
379 N. Whisman Rd.	379HVAC2D	10/07/03	Outdoor	10	Duplicate	0.240		0.140	ND	0.720		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.530		0.190	ND
379 N. Whisman Rd.	379HVAC2	10/07/03	Outdoor	10	Primary	0.250		0.140	ND	0.640		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.510		0.190	ND
					Number of Samples	19		19		19		19		19		19		19		19		17		19		19	
	Indoor				Number of Detects	10		0		8		1		0		0		0		0		0		18		6	
					Minimum Detection	0.23		0		0.24		0.19		0		0		0		0		0		0.38		0.17	
					Maximum Detection	0.35		0		0.72		0.19		0		0		0		0		0		0.65		0.29	
					Number of Samples	7		7		7		7		7		7		7		7		7		7		7	
	Outdoor				Number of Detects	4		0		2		0		0		0		0		0		0		6		2	
					Minimum Detection	0.19		0		0.64		0		0		0		0		0		0		0.44		0.19	
					Maximum Detection	0.25		0		0.72		0		0		0		0		0		0		0.77		0.26	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
389 N. Whisman Rd.	389AMB1	05/06/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.640		0.290	
389 N. Whisman Rd.	389AMB2	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.290	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.230	
389 N. Whisman Rd.	389AMB3	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.470		0.190	
389 N. Whisman Rd.	389AMB4	05/06/03	Indoor	10	Primary	0.150	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.220	
389 N. Whisman Rd.	389AMB1	05/13/03	Indoor	10	Primary	0.340		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.490		0.340	
389 N. Whisman Rd.	389AMB2	05/13/03	Indoor	10	Primary	0.320		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.300	ND	0.066	ND	0.130	ND	0.660	ND	0.260	ND	0.310	
389 N. Whisman Rd.	389AMB3	05/13/03	Indoor	10	Primary	0.270		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.270	
389 N. Whisman Rd.	389AMB4	05/13/03	Indoor	10	Primary	0.300		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.350		0.480	
389 N. Whisman Rd.	389AMB3D	10/02/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.590		0.190	ND
389 N. Whisman Rd.	389AMB1	10/02/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.630		0.200	ND
389 N. Whisman Rd.	389AMB2	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.620		0.190	ND
389 N. Whisman Rd.	389AMB3	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.600		0.190	ND
389 N. Whisman Rd.	389AMB4	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.640		0.190	ND
389 N. Whisman Rd.	389AMB2	10/07/03	Indoor	10	Duplicate-EPA	0.400		0.110	ND	0.470		0.300		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.690		0.200	J
389 N. Whisman Rd.	389AMB1	10/07/03	Indoor	10	Primary	0.330		0.140	ND	0.390		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
389 N. Whisman Rd.	389AMB2	10/07/03	Indoor	10	Primary	0.380		0.140	ND	7.900		2.100		0.044	ND	0.260		0.069	ND	0.730		0.690	ND	0.630		1.100	
389 N. Whisman Rd.	389AMB3	10/07/03	Indoor	10	Primary	0.300		0.140	ND	0.410		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.550		0.190	ND
389 N. Whisman Rd.	389AMB4	10/07/03	Indoor	10	Primary	0.310		0.140	ND	0.500		0.190	ND	0.044	ND	2.100		0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
389 N. Whisman Rd.	389HVAC1D	05/06/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.490		0.400	
389 N. Whisman Rd.	389HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.240	
389 N. Whisman Rd.	389HVAC2	05/06/03	Outdoor	10	Primary	0.150	ND	0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.240	ND	0.330	
389 N. Whisman Rd.	389HVAC1	05/13/03	Outdoor	10	Primary	0.210		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.760		0.330	
389 N. Whisman Rd.	389HVAC2	05/13/03	Outdoor	10	Primary	0.190		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.450		0.370	
					Number of Samples	18		18		18		18		18		18		18		18		17		18		18	
	Indoor				Number of Detects	10		0		5		2		0		2		0		1		0		14		10	
					Minimum Detection	0.18		0		0.39		0.3		0		0.26		0		0.73		0		0.35		0.19	
					Maximum Detection	0.4		0		7.9		2.1		0		2.1		0		0.73		0		0.69		1.1	
					Number of Samples	5		5		5		5		5		5		5		5		5		5		5	
	Outdoor				Number of Detects	2		0		0		0		0		0		0		0		0		3		5	
					Minimum Detection	0.19		0		0		0		0		0		0		0		0		0.45		0.24	
					Maximum Detection	0.21		0		0		0		0		0		0		0		0		0.76		0.4	
399 N. Whisman Rd.	399AMB1	05/06/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.320		0.250	
399 N. Whisman Rd.	399AMB2	05/06/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.260	
399 N. Whisman Rd.	399AMB3	05/06/03	Indoor	10	Primary	0.160		0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.390		0.250	
399 N. Whisman Rd.	399AMB4	05/06/03	Indoor	10	Primary	0.170		0.140	ND	8.900		0.180	ND	0.044	ND	2.900		0.068	ND	0.140	ND	0.680	ND	0.750		0.270	
399 N. Whisman Rd.	399AMB1	05/13/03	Indoor	10	Primary	0.310		0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.250	ND	0.300	
399 N. Whisman Rd.	399AMB2	05/13/03	Indoor	10	Primary	0.270		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.290	
399 N. Whisman Rd.	399AMB3	05/13/03	Indoor	10	Primary	0.260		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.280	
399 N. Whisman Rd.	399AMB4	05/13/03	Indoor	10	Primary	0.270		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.300	
399 N. Whisman Rd.	399AMB3D	10/02/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.640		0.190	ND
399 N. Whisman Rd.	399AMB2	10/02/03	Indoor	10	Duplicate-EPA	0.130	ND	0.110	ND	0.190	ND	0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.590		0.150	ND
399 N. Whisman Rd.	399AMB1	10/02/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.630		0.180	ND
399 N. Whisman Rd.	399AMB2	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.630		0.190	ND
399 N. Whisman Rd.	399AMB3	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.630		0.190	ND
399 N. Whisman Rd.	399AMB4	10/02/03	Indoor	10	Primary	0.240	ND	0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.690		0.180	ND
399 N. Whisman Rd.	399AMB1	10/07/03	Indoor	10	Primary	0.340		0.140	ND	0.440		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.650		0.190	ND
399 N. Whisman Rd.	399AMB2	10/07/03	Indoor	10	Primary	0.310		0.140	ND	0.430		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.590		0.190	ND
399 N. Whisman Rd.	399AMB3	10/07/03	Indoor	10	Primary	0.270		0.140	ND	0.530		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.580		0.190	ND
399 N. Whisman Rd.	399AMB4	10/07/03	Indoor	10	Primary	0.290		0.140	ND	0.510		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.590		0.190	ND
399 N. Whisman Rd.	399HVAC1	05/06/03	Outdoor	10	Primary	0.150	ND	0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.820		0.260	
399 N. Whisman Rd.	399HVAC2	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.780		0.270	
399 N. Whisman Rd.	399HVAC1	05/13/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.610		0.190	ND
399 N. Whisman Rd.	399HVAC2	05/13/03	Outdoor	10	Primary	0.180		0.130	ND	0.290		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.260	
399 N. Whisman Rd.	399HVAC2	10/02/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.710		0.200	ND
399 N. Whisman Rd.	399HVAC2	10/07/03	Outdoor	10	Primary	0.220		0.150	ND	0.540		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.640		0.200	ND
					Number of Samples	18		18		18		18		18		18		18		18		17		18		18	
	Indoor				Number of Detects	12		0		5		0		0		1		0		0		0		13		8	
					Minimum Detection	0.16		0		0.43		0		0		2.9		0		0		0		0.32		0.25	
					Maximum Detection	0.34		0		8.9		0		0		2.9		0		0		0		0.75		0.3	
					Number of Samples	6		6		6		6		6		6		6		6		6		6		6	
	Outdoor				Number of Detects	2		0		2		0		0		0		0		0		0		5		3	
					Minimum Detection	0.18		0		0.29		0		0		0		0		0		0		0.61		0.26	
					Maximum Detection	0.22		0		0.54		0		0		0		0		0		0		0.82		0.27	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
401 National Ave	401AMB1	05/06/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	7.400	ND	51.000		2.800	ND	6.600	ND	3.900		13.000		NT		64.000		18.000	
401 National Ave	401AMB1	05/06/03	Indoor	10	Primary	0.430		0.320		0.720		45.000		0.044	ND	0.210	ND	2.500		12.000		0.690	ND	45.000		20.000	
401 National Ave	401AMB2	05/06/03	Indoor	10	Primary	0.830		0.450		0.750		41.000		0.040	ND	0.190	ND	0.990		11.000		0.620	ND	16.000		33.000	
401 National Ave	401AMB3	05/06/03	Indoor	10	Primary	0.150	ND	0.150		0.210	ND	0.240		0.040	ND	0.190	ND	0.550		0.120	ND	0.620	ND	0.800		4.800	
401 National Ave	401AMB4	05/06/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.220		0.044	ND	0.210	ND	0.500		0.140	ND	0.690	ND	0.850		4.500	
401 National Ave	401AMB1	05/13/03	Indoor	10	Primary	0.480		0.250		0.610		34.000		0.044	ND	0.200	ND	2.000		7.600		0.680	ND	40.000		17.000	
401 National Ave	401AMB2	05/13/03	Indoor	10	Primary	0.730		0.310		0.530		28.000		0.042	ND	0.230		2.000		6.800		0.650	ND	31.000		22.000	
401 National Ave	401AMB3	05/13/03	Indoor	10	Primary	0.260		0.130	ND	0.230		0.300		0.043	ND	0.200	ND	0.260		0.130	ND	0.660	ND	1.000		2.000	
401 National Ave	401AMB4	05/13/03	Indoor	10	Primary	0.260		0.140	ND	0.290		0.220		0.044	ND	0.200	ND	0.130		0.140	ND	0.680	ND	0.670		1.400	
401 National Ave	401AMB2	06/09/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.230	J	5.200	J	0.140	ND	6.600	ND	0.520		1.300		NT		10.000		6.000	ND
401 National Ave	401AMB2	06/09/03	Indoor	10	Primary	0.690		0.140	ND	0.260		4.200		0.045	ND	0.210	ND	0.290		1.100		0.700	ND	6.000		1.900	
401 National Ave	401AMB3	06/09/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.200	J	0.140	J	0.140	ND	6.600	ND	0.420		0.220	ND	NT		8.400	ND	3.000	J
401 National Ave	401AMB3	06/09/03	Indoor	10	Primary	0.660		0.150	ND	0.310		0.200	ND	0.046	ND	0.220	ND	0.270		0.140	ND	0.720	ND	0.810		3.400	
401 National Ave	401OUT1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.730		0.340	
401 National Ave	401OUT2	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.640		0.780	
401 National Ave	401OUT1	05/13/03	Outdoor	10	Primary	0.190		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.570		0.520	
401 National Ave	401OUT1D	05/13/03	Outdoor	10	Duplicate	0.190		0.150	ND	0.340		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.510		0.490	
401 National Ave	401OUT2	05/13/03	Outdoor	10	Primary	0.170		0.130	ND	0.230		0.180	ND	0.042	ND	0.240		0.065	ND	0.130	ND	0.650	ND	0.500		0.270	
401 National Ave	401OUT1	06/09/03	Outdoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.220	J	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
401 National Ave	401OUT1	06/09/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.260		0.200	ND	0.048	ND	0.180	ND	0.074	ND	0.150	ND	0.740	ND	0.480		0.240	
Indoor before mitigation					Number of Samples	13		13		13		13		13		13		13		13		10		13		13	
					Number of Detects	9		5		10		12		0		1		13		7		0		12		12	
					Minimum Detection	0.18		0.15		0.2		0.14		0		0.23		0.13		1.1		0		0.67		1.4	
					Maximum Detection	0.83		0.45		0.75		51		0		0.23		3.9		13		0		64		33	
Outdoor					Number of Samples	7		7		7		7		7		7		7		7		6		7		7	
					Number of Detects	3		0		4		0		0		1		0		0		0		6		6	
					Minimum Detection	0.17		0		0.22		0		0		0.24		0		0		0		0.48		0.24	
					Maximum Detection	0.19		0		0.34		0		0		0.24		0		0		0		0.73		0.78	
401 National Ave	401AMB1	09/04/03	Indoor	10	Duplicate-EPA	0.170	J	0.110	ND	0.360	J	2.200		0.070	ND	0.550		0.290		0.870		NT		2.400		1.600	
401 National Ave	401AMB1	09/04/03	Indoor	10	Primary	0.320		0.140	ND	1.100		1.900		0.044	ND	0.210	ND	0.230		0.470		0.690	ND	1.800		1.800	
401 National Ave	401AMB1D	09/04/03	Indoor	10	Duplicate	0.180	ND	0.150	ND	0.270		1.900		0.048	ND	0.220	ND	0.240		0.560		0.740	ND	2.000		1.900	
401 National Ave	401AMB3	09/04/03	Indoor	10	Primary	0.360		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.110		0.140	ND	0.720	ND	0.890		0.960	
401 National Ave	401AMB4	09/04/03	Indoor	10	Primary	1.500		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.090		0.140	ND	0.720	ND	0.730		0.850	
401 National Ave	401AMB1	04/01/04	Indoor	10	Duplicate	0.440		0.120	ND	0.370		1.800		0.039	ND	0.180	ND	0.140		0.410		0.610	ND	2.200		1.500	
401 National Ave	401AMB1	04/01/04	Indoor	10	Primary	0.450		0.120	ND	0.390		2.000		0.039	ND	0.180	ND	0.150		0.460		0.610	ND	2.200		1.600	
401 National Ave	401AMB2	04/01/04	Indoor	10	Primary	0.630		0.130	ND	0.310		1.900		0.043	ND	0.200	ND	0.160		0.400		0.660	ND	2.100		1.600	
401 National Ave	401AMB2D	04/01/04	Indoor	10	Duplicate	0.650		0.120	ND	0.290		1.700		0.039	ND	0.180	ND	0.290		0.380		0.610	ND	4.000		1.300	
401 National Ave	401AMB3	04/01/04	Indoor	10	Primary	0.220		0.160		0.230	ND	0.260		0.044	ND	0.200	ND	0.360		0.170		0.680	ND	0.800		4.000	
401 National Ave	401AMB4	04/01/04	Indoor	10	Primary	0.230		0.140	ND	0.240	ND	0.200		0.045	ND	0.210	ND	0.220		0.140	ND	0.700	ND	0.620		3.100	
401 National Ave	401OUT1	09/04/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.220	
401 National Ave	401OUT2	09/04/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.730		0.190	J
401 National Ave	401OUT2	09/04/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.740		0.200	
401 National Ave	401OUT1	04/01/04	Outdoor	10	Primary	0.270		0.140	ND	0.300		0.079		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.400		0.300	
401 National Ave	401OUT2	04/01/04	Outdoor	10	Primary	0.160	ND	0.130	ND	0.230	ND	0.065		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.420		0.400	
Indoor - after sealing of cracks and installation of exhaust system in utility room					Number of Samples	11		11		11		11		11		11		11		11		10		11		11	
					Number of Detects	10		1		7		9		0		1		11		8		0		11		11	
					Minimum Detection	0.17		0.16		0.27		0.2		0		0.55		0.09		0.17		0		0.62		0.85	
					Maximum Detection	1.5		0.16		1.1		2.2		0		0.55		0.36		0.87		0		4		4	
Outdoor					Number of Samples	5		5		5		5		5		5		5		5		5		5		5	
					Number of Detects	1		0		1		2		0		0		0		0		0		5		5	
					Minimum Detection	0.27		0		0.3		0.065		0		0		0		0		0		0.4		0.19	
					Maximum Detection	0.27		0		0.3		0.079		0		0		0		0		0		0.74		0.4	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
464 Ellis St.	464AMB1D	05/06/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.720		0.230	
464 Ellis St.	464AMB1	05/06/03	Indoor	10	Primary	0.190		0.120	ND	0.210	ND	0.170	ND	0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.530		0.250	
464 Ellis St.	464AMB2	05/06/03	Indoor	10	Primary	0.170	J	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.250	
464 Ellis St.	464AMB3	05/06/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.250	ND	0.410	
464 Ellis St.	464AMB4	05/06/03	Indoor	10	Primary	0.350		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.210	
464 Ellis St.	464AMB1	05/13/03	Indoor	10	Duplicate	0.210		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.530		0.190	
464 Ellis St.	464AMB1	05/13/03	Indoor	10	Primary	0.210		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.520		0.190	ND
464 Ellis St.	464AMB2	05/13/03	Indoor	10	Primary	0.220		0.130	ND	0.220	J	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.510		0.180	
464 Ellis St.	464AMB3	05/13/03	Indoor	10	Primary	0.220		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.500		0.180	
464 Ellis St.	464AMB4	05/13/03	Indoor	10	Primary	0.240		0.140	ND	0.650		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.200	
464 Ellis St.	464AMB1	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.220		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.610		0.190	ND
464 Ellis St.	464AMB2	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
464 Ellis St.	464AMB3	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.620		0.190	ND
464 Ellis St.	464AMB4	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.270		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
464 Ellis St.	464AMB1D	10/07/03	Indoor	10	Duplicate	0.380		0.140	ND	0.400		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
464 Ellis St.	464AMB2	10/07/03	Indoor	10	Duplicate-EPA	0.430		0.110	ND	0.490		0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.690		0.210	J
464 Ellis St.	464AMB1	10/07/03	Indoor	10	Primary	0.380		0.140	ND	0.400		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.580		0.190	ND
464 Ellis St.	464AMB2	10/07/03	Indoor	10	Primary	0.410		0.140	ND	0.420		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.610		0.190	ND
464 Ellis St.	464AMB3	10/07/03	Indoor	10	Primary	0.350		0.140	ND	0.370		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.590		0.190	ND
464 Ellis St.	464AMB4	10/07/03	Indoor	10	Primary	0.320		0.140	ND	0.350		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.540		0.190	ND
464 Ellis St.	464HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.280	
464 Ellis St.	464HVAC2	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.240	
464 Ellis St.	464HVAC1	05/13/03	Outdoor	10	Primary	0.220		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.260	
464 Ellis St.	464HVAC2	05/13/03	Outdoor	10	Primary	0.200		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.520		0.180	ND
	Indoor				Number of Samples	20		20		20		20		20		20		20		20		19		20		20	
					Number of Detects	14		0		8		2		0		0		0		0		0		17		10	
					Minimum Detection	0.17		0		0.22		0.22		0		0		0		0		0		0.5		0.18	
					Maximum Detection	0.43		0		0.65		0.27		0		0		0		0		0		0.72		0.41	
	Outdoor				Number of Samples	4		4		4		4		4		4		4		4		4		4		4	
					Number of Detects	2		0		0		0		0		0		0		0		0		1		3	
					Minimum Detection	0.2		0		0		0		0		0		0		0		0		0.52		0.24	
					Maximum Detection	0.22		0		0		0		0		0		0		0		0		0.52		0.28	
466 Ellis St.	466AMB1	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.440		0.190	ND
466 Ellis St.	466AMB2	05/06/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.300		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.180	ND
466 Ellis St.	466AMB3	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.450		0.190	ND
466 Ellis St.	466AMB4	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.430		0.190	ND
466 Ellis St.	466AMB1	05/13/03	Indoor	10	Primary	0.240		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.300		0.260	
466 Ellis St.	466AMB2	05/13/03	Indoor	10	Primary	0.250		0.140	ND	0.500		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.280	
466 Ellis St.	466AMB3	05/13/03	Indoor	10	Primary	0.240		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.260	ND	0.270	
466 Ellis St.	466AMB4	05/13/03	Indoor	10	Primary	0.290		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.430		0.270	
466 Ellis St.	466AMB1	10/02/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.270		0.072	ND	0.140	ND	0.720	ND	0.520		0.200	ND
466 Ellis St.	466AMB2	10/02/03	Indoor	10	Primary	0.170		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.510		0.190	ND
466 Ellis St.	466AMB3	10/02/03	Indoor	10	Primary	0.180		0.260		0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.190	ND
466 Ellis St.	466AMB4	10/02/03	Indoor	10	Primary	0.220		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.730		0.190	ND
466 Ellis St.	466AMB2	10/07/03	Indoor	10	Duplicate-EPA	0.290		0.110	ND	0.610		0.210	J	0.070	ND	0.240	J	0.110	ND	0.110	ND	NT		0.690		0.190	J
466 Ellis St.	466AMB1	10/07/03	Indoor	10	Primary	0.250		0.140	ND	0.510		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.540		0.190	ND
466 Ellis St.	466AMB2	10/07/03	Indoor	10	Primary	0.240		0.140	ND	0.510		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.540		0.190	ND
466 Ellis St.	466AMB3	10/07/03	Indoor	10	Primary	0.260		0.140	ND	0.530		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
466 Ellis St.	466AMB4	10/07/03	Indoor	10	Primary	0.300		0.140	ND	0.700		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.190	ND
466 Ellis St.	466HVAC1D	05/06/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.460		0.190	ND
466 Ellis St.	466HVAC1	05/06/03	Outdoor	10	Primary	0.140	ND	0.110	ND	0.190	ND	0.150	ND	0.036	ND	0.170	ND	0.056	ND	0.110	ND	0.560	ND	0.480		0.160	
466 Ellis St.	466HVAC1D	05/13/03	Outdoor	10	Duplicate	0.220		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.280		0.300	
466 Ellis St.	466HVAC1	05/13/03	Outdoor	10	Primary	0.210		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.270	
466 Ellis St.	466HVAC1D	10/02/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.710		0.190	ND
466 Ellis St.	466HVAC1	10/02/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.270		0.180	ND	0.049		0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.580		0.190	ND
466 Ellis St.	466HVAC1	10/07/03	Outdoor	10	Primary	0.210		0.140	ND	0.450		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
	Indoor				Number of Samples	17		17		17		17		17		17		17		17		16		17		17	
					Number of Detects	12		1		7		1		0		2		0		0		0		14		5	
					Minimum Detection	0.17		0.26		0.3		0.21		0		0.24		0		0		0		0.3		0.19	
					Maximum Detection	0.3		0.26		0.7		0.21		0		0.27		0		0		0		0.73		0.28	
	Outdoor				Number of Samples	7		7		7		7		7		7		7		7		7		7		7	
					Number of Detects	3		0		2		0		1		0		0		0		0		6		3	
					Minimum Detection	0.21		0		0.27		0		0.049		0		0		0		0		0.28		0.16	
					Maximum Detection	0.22		0		0.45		0		0.049		0		0		0		0		0.71		0.3	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
468 Ellis St.	468AMB1	05/06/03	Indoor	10	Primary	0.640		0.130	ND	0.310		0.220		0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.240	ND	0.260	
468 Ellis St.	468AMB2	05/06/03	Indoor	10	Primary	1.200		0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.270		0.310	
468 Ellis St.	468AMB3	05/06/03	Indoor	10	Primary	0.970		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.260	
468 Ellis St.	468AMB4	05/06/03	Indoor	10	Primary	0.890		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.350	J
468 Ellis St.	468AMB3D	05/13/03	Indoor	10	Duplicate	0.710		0.120	ND	1.700		0.170	ND	0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.240	ND	0.190	
468 Ellis St.	468AMB4	05/13/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.370	ND	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
468 Ellis St.	468AMB1	05/13/03	Indoor	10	Primary	0.940		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.260	ND	0.200	
468 Ellis St.	468AMB2	05/13/03	Indoor	10	Primary	0.910		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.390		0.230	
468 Ellis St.	468AMB3	05/13/03	Indoor	10	Primary	0.920		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.190	ND
468 Ellis St.	468AMB4	05/13/03	Indoor	10	Primary	0.770		0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.240	ND	0.170	ND
468 Ellis St.	468AMB1	10/02/03	Indoor	10	Primary	0.890		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.530		0.190	ND
468 Ellis St.	468AMB2	10/02/03	Indoor	10	Primary	0.680		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.570		0.190	ND
468 Ellis St.	468AMB3	10/02/03	Indoor	10	Primary	1.500		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
468 Ellis St.	468AMB4	10/02/03	Indoor	10	Primary	1.200		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
468 Ellis St.	468AMB2	10/07/03	Indoor	10	Duplicate-EPA	1.300		0.110	ND	0.610		0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.730		0.200	J
468 Ellis St.	468AMB1	10/07/03	Indoor	10	Primary	0.960		0.140	ND	0.590		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.490		0.190	ND
468 Ellis St.	468AMB2	10/07/03	Indoor	10	Primary	1.000		0.140	ND	0.590		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.490		0.190	ND
468 Ellis St.	468AMB3	10/07/03	Indoor	10	Primary	1.200		0.130	ND	0.700		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.710		0.180	ND
468 Ellis St.	468AMB4	10/07/03	Indoor	10	Primary	1.200		0.140	ND	0.670		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.480		0.190	ND
468 Ellis St.	468HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.480		0.230	
468 Ellis St.	468HVAC2	05/06/03	Outdoor	10	Primary	0.160		0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.810		0.340	
468 Ellis St.	468HVAC1	05/13/03	Outdoor	10	Primary	0.210		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.550		0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.260	
468 Ellis St.	468HVAC2	05/13/03	Outdoor	10	Primary	0.230		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.340		0.270	
468 Ellis St.	468HVAC2	10/02/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.610		0.190	ND
468 Ellis St.	468HVAC2	10/07/03	Outdoor	10	Primary	0.240		0.140	ND	0.660		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.800		0.190	ND
	Indoor				Number of Samples	19		19		19		19		19		19		19		19		17		19		19	
					Number of Detects	18		0		7		1		0		0		0		0		0		11		8	
					Minimum Detection	0.64		0		0.31		0.22		0		0		0		0		0		0.27		0.19	
					Maximum Detection	1.5		0		1.7		0.22		0		0		0		0		0		0.73		0.35	
	Outdoor				Number of Samples	6		6		6		6		6		6		6		6		6		6		6	
					Number of Detects	4		0		1		0		0		1		0		0		0		5		4	
					Minimum Detection	0.16		0		0.66		0		0		0.55		0		0		0		0.34		0.23	
					Maximum Detection	0.24		0		0.66		0		0		0.55		0		0		0		0.81		0.34	
515 N. Whisman Rd	515AMB1	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.480		0.190	ND
515 N. Whisman Rd	515AMB2	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.420		0.190	ND
515 N. Whisman Rd	515AMB3	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.420		0.190	ND
515 N. Whisman Rd	515AMB4	05/06/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.410		0.210	
515 N. Whisman Rd	515AMB1	05/13/03	Indoor	10	Primary	0.760		0.140	ND	0.330		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.470		0.310	
515 N. Whisman Rd	515AMB2	05/13/03	Indoor	10	Primary	0.440		0.140	ND	0.260		0.190	ND	0.044	ND	0.470	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.310	
515 N. Whisman Rd	515AMB3	05/13/03	Indoor	10	Primary	0.510		0.140	ND	0.320		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.310	
515 N. Whisman Rd	515AMB4	05/13/03	Indoor	10	Primary	0.530		0.140	ND	0.280		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.290	
515 N. Whisman Rd	515AMB1D	10/02/03	Indoor	10	Duplicate	0.210		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
515 N. Whisman Rd	515AMB3	10/02/03	Indoor	10	Duplicate-EPA	0.200	J	0.110	ND	0.190	ND	0.180	J	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.660		0.160	J
515 N. Whisman Rd	515AMB1	10/02/03	Indoor	10	Primary	0.230		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
515 N. Whisman Rd	515AMB2	10/02/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.550		0.190	ND
515 N. Whisman Rd	515AMB3	10/02/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.550		0.190	ND
515 N. Whisman Rd	515AMB4	10/02/03	Indoor	10	Primary	0.180		0.130	ND	0.220	ND	0.180		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.630		0.180	ND
515 N. Whisman Rd	515AMB1	10/07/03	Indoor	10	Primary	0.400		0.140	ND	0.420	ND	0.220	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.600		0.190	ND
515 N. Whisman Rd	515AMB2	10/07/03	Indoor	10	Primary	0.340		0.140	ND	0.440	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.540		0.190	ND
515 N. Whisman Rd	515AMB3	10/07/03	Indoor	10	Primary	0.390		0.140	ND	0.280	ND	0.220	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
515 N. Whisman Rd	515AMB4	10/07/03	Indoor	10	Primary	0.420		0.140	ND	0.300	ND	0.230	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.630		0.200	
515 N. Whisman Rd	515HVAC1D	05/06/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.400		0.210	
515 N. Whisman Rd	515HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.400		0.190	ND
515 N. Whisman Rd	515HVAC2	05/06/03	Outdoor	10	Primary	0.150	ND	0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.430		0.170	ND
515 N. Whisman Rd	515HVAC1	05/13/03	Outdoor	10	Primary	0.230		0.140	ND	0.230	J	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.280	
515 N. Whisman Rd	515HVAC2	05/13/03	Outdoor	10	Primary	0.240		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.470		0.300	
	Indoor				Number of Samples	18		18		18		18		18		18		18		18		17		18		18	
					Number of Detects	13		0		4		2		0		0		0		0		0		15		7	
					Minimum Detection	0.18		0		0.26		0.18		0		0		0		0		0		0.41		0.16	
					Maximum Detection	0.76		0		0.33		0.18		0		0		0		0		0		0.66		0.31	
	Outdoor				Number of Samples	5		5		5		5		5		5		5		5		5		5		5	
					Number of Detects	2		0		1		0		0		0		0		0		0		4		3	
					Minimum Detection	0.23		0		0.23		0		0		0		0		0		0		0.4		0.21	
					Maximum Detection	0.24		0		0.23		0		0		0		0		0		0		0.47		0.3	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
545 N. Whisman Rd.	545AMB3D	05/06/03	Indoor	10	Duplicate	0.230		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.190	J
545 N. Whisman Rd.	545AMB1	05/06/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.250	ND	0.250	J
545 N. Whisman Rd.	545AMB2	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
545 N. Whisman Rd.	545AMB3	05/06/03	Indoor	10	Primary	0.230		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.510		0.190	ND
545 N. Whisman Rd.	545AMB4	05/06/03	Indoor	10	Primary	0.300		0.120	ND	0.220		0.160	ND	0.037	ND	0.180	ND	0.058	ND	0.120	ND	0.580	ND	0.560		0.200	
545 N. Whisman Rd.	545AMB3	05/13/03	Indoor	10	Duplicate	0.330		0.120	ND	0.260		3.400		0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.580		0.220	
545 N. Whisman Rd.	545AMB2	05/13/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.240	J	0.210	J	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
545 N. Whisman Rd.	545AMB1	05/13/03	Indoor	10	Primary	0.310		0.130	ND	0.250		0.180	ND	0.043	ND	0.200	ND	0.066		0.130	ND	0.660	ND	0.500		0.180	
545 N. Whisman Rd.	545AMB2	05/13/03	Indoor	10	Primary	0.270		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.420		0.180	ND
545 N. Whisman Rd.	545AMB3	05/13/03	Indoor	10	Primary	0.300		0.120	ND	0.220		3.300		0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.510		0.180	
545 N. Whisman Rd.	545AMB4	05/13/03	Indoor	10	Primary	0.450		0.130	ND	0.240		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.290	
545 N. Whisman Rd.	545AMB3	10/02/03	Indoor	10	Duplicate-EPA	0.320		0.110	ND	0.190	ND	0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.640		0.160	J
545 N. Whisman Rd.	545AMB1	10/02/03	Indoor	10	Primary	0.200		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.550		0.190	ND
545 N. Whisman Rd.	545AMB2	10/02/03	Indoor	10	Primary	0.210		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.580		0.190	ND
545 N. Whisman Rd.	545AMB3	10/02/03	Indoor	10	Primary	0.310		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.520		0.200	ND
545 N. Whisman Rd.	545AMB4	10/02/03	Indoor	10	Primary	0.320		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.550		0.190	ND
545 N. Whisman Rd.	545AMB1	10/07/03	Indoor	10	Duplicate	0.370		0.140	ND	0.620		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.550		0.190	ND
545 N. Whisman Rd.	545AMB1	10/07/03	Indoor	10	Primary	0.360		0.140	ND	0.610	ND	0.190	ND	0.045	ND	0.620		0.070	ND	0.140	ND	0.700	ND	0.530		0.190	ND
545 N. Whisman Rd.	545AMB2	10/07/03	Indoor	10	Primary	0.370		0.140	ND	0.590	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.550		0.190	ND
545 N. Whisman Rd.	545AMB3	10/07/03	Indoor	10	Primary	0.480		0.140	ND	0.570	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.600		0.190	ND
545 N. Whisman Rd.	545AMB4	10/07/03	Indoor	10	Primary	0.480		0.140	ND	0.540	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.550		0.190	ND
545 N. Whisman Rd.	545HVAC1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.730		0.190	ND
545 N. Whisman Rd.	545HVAC2	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.650		0.190	ND
545 N. Whisman Rd.	545HVAC2D	05/13/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.690		0.190	ND	0.054		0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.510		0.190	ND
545 N. Whisman Rd.	545HVAC1	05/13/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.064		0.210		0.069	ND	0.140	ND	0.690	ND	0.510		0.190	
545 N. Whisman Rd.	545HVAC2	05/13/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.270		0.180	ND	0.044	ND	0.490		0.068	ND	0.140	ND	0.680	ND	0.500		0.190	ND
545 N. Whisman Rd.	545HVAC1	10/02/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.580		0.190	ND
545 N. Whisman Rd.	545HVAC1D	10/07/03	Outdoor	10	Duplicate	0.220		0.150	ND	0.610	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.600		0.200	ND
545 N. Whisman Rd.	545HVAC1	10/07/03	Outdoor	10	Primary	0.200		0.500		2.100		0.940		0.044	ND	1.100		0.069	ND	0.190	ND	0.690	ND	0.570		0.190	ND
					Number of Samples	21		21		21		21		21		21		21		21		19		21		21	
	Indoor				Number of Detects	18		0		7		3		0		1		1		0		0		18		8	
					Minimum Detection	0.2		0		0.22		0.21		0		0.62		0.066		0		0		0.42		0.16	
					Maximum Detection	0.48		0		0.62		3.4		0		0.62		0.066		0		0		0.64		0.29	
					Number of Samples	8		8		8		8		8		8		8		8		8		8		8	
	Outdoor				Number of Detects	2		1		3		1		2		3		0		0		0		8		1	
					Minimum Detection	0.2		0.5		0.27		0.94		0.054		0.21		0		0		0		0.5		0.19	
					Maximum Detection	0.22		0.5		2.1		0.94		0.064		1.1		0		0		0		0.73		0.19	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
644 National Ave.	644AMB1	05/06/03	Indoor	10	Primary	0.180		0.160		0.220	ND	36.000		0.690		0.200	ND	0.300		14.000		0.650	ND	1.000		0.420	
644 National Ave.	644AMB1	05/13/03	Indoor	10	Primary	0.220		0.180		0.390		40.000		1.100		0.200	ND	0.350		14.000		0.650	ND	1.200		0.360	
644 National Ave.	644AMB1	06/09/03	Indoor	10	Duplicate-EPA	7.100	ND	5.900	ND	9.900	ND	15.000		3.700	ND	8.700	ND	5.800	ND	8.200		NT		11.000	ND	7.900	ND
644 National Ave.	644AMB5	06/09/03	Indoor	10	Duplicate-EPA	11.000	ND	8.800	ND	15.000	ND	30.000		5.600	ND	13.000	ND	8.700	ND	19.000		NT		17.000	ND	12.000	ND
644 National Ave.	644AMB1	06/09/03	Indoor	10	Primary	0.240		0.150	ND	0.250	ND	26.000		0.760		0.220	ND	0.230		14.000		0.740	ND	0.930		0.270	
644 National Ave.	644AMB5	06/09/03	Indoor	10	Primary	0.300		0.150	ND	0.310		38.000		1.100		0.350		0.320		20.000		0.720	ND	1.200		0.320	
644 National Ave.	644AMB2	05/06/03	Indoor	10	Primary	0.220		0.370		0.350		94.000		1.700		0.200	ND	0.750		33.000		0.680	ND	2.000		0.700	
644 National Ave.	644AMB2D	05/13/03	Indoor	10	Duplicate	0.270		0.260		0.340		49.000		1.700		0.210	ND	0.170		22.000		0.690	ND	0.440		0.690	
644 National Ave.	644AMB2	05/13/03	Indoor	10	Primary	0.290		0.270		0.530		50.000		1.700		0.200	ND	0.160		22.000		0.660	ND	0.600		0.700	
644 National Ave.	644AMB2	06/09/03	Indoor	10	Duplicate-EPA	11.000	ND	8.800	ND	15.000	ND	70.000		5.600	ND	13.000	ND	8.700	ND	41.000		NT		17.000	ND	12.000	ND
644 National Ave.	644AMB2	06/09/03	Indoor	10	Primary	0.180	ND	0.270		0.300		80.000		2.300		0.220	ND	0.630		38.000		0.720	ND	1.900		0.520	
644 National Ave.	644AMB3D	05/06/03	Indoor	10	Duplicate	0.290	J	0.730		0.630		210.000		4.200		0.360	ND	2.400		71.000		1.200	ND	7.100		1.100	
644 National Ave.	644AMB3	05/06/03	Indoor	10	Primary	0.330	ND	0.670		0.640		190.000		3.900		0.410	ND	2.200		64.000		1.400	ND	6.000		1.100	
644 National Ave.	644AMB4	05/06/03	Indoor	10	Primary	0.330		1.000		0.760		270.000		5.800		0.360	ND	3.000		98.000		1.200	ND	8.200		1.400	
644 National Ave.	644AMB4	05/13/03	Indoor	10	Duplicate-EPA	6.900	ND	5.700	ND	9.600	ND	410.000		11.000		8.500	ND	5.200		170.000		NT		12.000		7.700	ND
644 National Ave.	644AMB3	05/13/03	Indoor	10	Primary	0.360	ND	0.720		0.630		210.000		4.800		0.450	ND	1.600		66.000		1.500	ND	4.000		0.960	
644 National Ave.	644AMB4	05/13/03	Indoor	10	Primary	0.560	ND	1.300		1.200		490.000		14.000		0.680	ND	4.900		190.000		2.200	ND	11.000		2.300	
644 National Ave.	644AMB3	06/09/03	Indoor	10	Duplicate-EPA	11.000	ND	8.800	ND	15.000	ND	230.000		7.300		13.000	ND	8.700	ND	110.000		NT		8.400	J	12.000	ND
644 National Ave.	644AMB3	06/09/03	Indoor	10	Primary	0.300	ND	0.850		0.610		280.000		8.000		0.360	ND	3.100		130.000		1.400		9.100		1.100	
644 National Ave.	644OUT1	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.800		0.044	ND	0.210	ND	0.069	ND	0.240		0.690	ND	0.270	ND	0.270	
644 National Ave.	644OUT2	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.730		0.045	ND	0.210	ND	0.070	ND	0.280		0.700	ND	0.450		0.190	ND
644 National Ave.	644OUT1	05/13/03	Outdoor	10	Primary	0.200		0.130	ND	0.230	ND	1.600		0.160		0.200	ND	0.066	ND	0.370		0.660	ND	0.570		0.180	J
644 National Ave.	644OUT2	05/13/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.260	ND	1.100		0.054		0.230	ND	0.075	ND	0.280		0.750	ND	0.520		0.210	ND
644 National Ave.	644OUT2	06/09/03	Outdoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.190	J	0.880		0.140	ND	6.600	ND	0.220	ND	0.420		NT		8.400	ND	6.000	ND
644 National Ave.	644OUT2	06/09/03	Outdoor	10	Primary	0.200		0.150	ND	0.290		2.000		0.070		0.220	ND	0.074	ND	0.870		0.740	ND	0.520		0.320	
Indoor - Basement before mitigation					Number of Samples	8		8		8		8		8		8		8		8		6		8		8	
					Number of Detects	2		6		6		8		8		0		7		8		1		8		6	
					Minimum Detection	0.29		0.67		0.61		190		3.9		0		1.6		64		1.4		4		0.96	
					Maximum Detection	0.33		1.3		1.2		490		14		0		5.2		190		1.4		12		2.3	
Indoor - first and second floors before mitigation					Number of Samples	11		11		11		11		11		11		11		11		8		11		11	
					Number of Detects	7		6		6		11		8		1		8		11		0		8		8	
					Minimum Detection	0.18		0.16		0.3		15		0.69		0.35		0.16		8.2		0		0.44		0.27	
					Maximum Detection	0.3		0.37		0.53		94		2.3		0.35		0.75		41		0		2		0.7	
Outdoor					Number of Samples	6		6		6		6		6		6		6		6		5		6		6	
					Number of Detects	2		0		2		6		3		0		0		6		0		4		3	
					Minimum Detection	0.2		0		0.19		0.73		0.054		0		0		0.24		0		0.45		0.18	
					Maximum Detection	0.2		0		0.29		2		0.16		0		0		0.87		0		0.57		0.32	
644 National Ave.	644AMB1D	11/13/03	Indoor	10	Duplicate	0.160	ND	0.130	ND	0.280	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.640		0.180	ND
644 National Ave.	644AMB1	11/13/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.260	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.770		0.200	ND
644 National Ave.	644AMB5	11/13/03	Indoor	10	Primary	0.160	J	0.140	ND	0.250	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.670		0.190	ND
644 National Ave.	644AMB1	07/01/04	Indoor	10	Primary	0.420		0.140	ND	0.240	ND	0.240		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.770		0.190	ND
644 National Ave.	644AMB5	07/01/04	Indoor	10	Primary	0.160	ND	0.130	ND	0.230	ND	0.260		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.590		0.180	ND
644 National Ave.	644AMB2	11/13/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.650		0.200	ND
644 National Ave.	644AMB2D	07/01/04	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.590		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
644 National Ave.	644AMB2	07/01/04	Indoor	10	Primary	0.170	ND	0.140	ND	0.240		0.560		0.044	ND	0.200	ND	0.068	ND	0.140		0.680	ND	0.580		0.190	ND
644 National Ave.	644AMB4	11/13/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.300		24.000		0.100		0.210	ND	0.320		5.600		0.700	ND	2.200		0.330	
644 National Ave.	644AMB3	11/13/03	Indoor	10	Primary	0.140	ND	0.120	ND	0.350	ND	14.000		0.050		0.410		0.180		3.400		0.590	ND	1.500		0.280	
644 National Ave.	644AMB4	11/13/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.310	ND	26.000		0.093		0.210	ND	0.340		6.200		0.700	ND	2.200		0.360	
644 National Ave.	644AMB6	11/13/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.260	ND	14.000		0.044	ND	0.210	ND	0.190		3.000		0.690	ND	1.500		0.270	
644 National Ave.	644AMB7	11/13/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.280	ND	23.000		0.067		0.210	ND	0.300		4.500		0.700	ND	2.000		0.330	
644 National Ave.	644AMB3	07/01/04	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	33.000		0.093		0.210	ND	0.320		5.600		0.690	ND	1.900		0.370	
644 National Ave.	644AMB4	07/01/04	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	36.000		0.092		0.210	ND	0.310		5.800		0.700	ND	2.000		0.400	
644 National Ave.	644AMB6	07/01/04	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	40.000		0.120		0.210	ND	0.340		6.400		0.700	ND	2.100		0.410	
644 National Ave.	644AMB7	07/01/04	Indoor	10	Primary	0.170	ND	0.140		0.240	ND	43.000		0.120		0.210	ND	0.370		6.500		0.700	ND	2.200		0.420	
644 National Ave.	644OUT2	11/13/03	Outdoor	10	Duplicate	0.180	ND	0.150	ND	0.250	ND	0.290		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.790		0.200	ND
644 National Ave.	644OUT1	11/13/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.200	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.660		0.190	ND
644 National Ave.	644OUT2	11/13/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.260	ND	0.290	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.740		0.200	ND
644 National Ave.	644OUT1	07/01/04	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.610		0.190	ND
644 National Ave.	644OUT1	07/01/04	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.600		0.190	ND
644 National Ave.	644OUT2	07/01/04	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.680		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.740		0.190	ND
Indoor - Basement after installation of exhaust system in basement					Number of Samples	9		9		9		9		9		9		9		9		9		9		9	
					Number of Detects	0		1		1		9		8		1		9		9		0		9		9	
					Minimum Detection	0		0.14		0.3		14		0.05		0.41		0.18		3		0		1.5		0.27	
					Maximum Detection	0		0.14		0.3		43		0.12		0.41		0.37		6.5		0		2.2		0.42	
Indoor- First and second floor after installating exhaust system in basement					Number of Samples	8		8		8		8		8		8		8		8		8		8		8	
					Number of Detects	2		0		1		4		0		0		0		1		0		8		0	
					Minimum Detection	0.16		0		0.24		0.24		0		0		0		0.14		0		0.57		0	
					Maximum Detection	0.42		0		0.24		0.59		0		0		0		0.14		0		0.77		0	
Outdoor					Number of Samples	6		6		6		6		6		6		6		6		6		6		6	
					Number of Detects	0		0		0		2		0		0		0		0		0		6		0	
					Minimum Detection	0		0		0		0.29		0		0		0		0		0		0.6		0	
					Maximum Detection	0		0		0		0.68		0		0		0		0		0		0.79		0	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA	PCE	TCE	VC	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA
355/365 E. Middlefield Rd.	IR1	05/06/03	Indoor	12	Primary	NT	ND	NT	0.190	ND	NT	0.065 ND	0.130 ND	ND	0.180 J	NT
355/365 E. Middlefield Rd.	IR2	05/06/03	Indoor	12	Primary	NT	ND	NT	0.150 J	ND	NT	0.068 ND	0.140 ND	ND	0.250 J	NT
355/365 E. Middlefield Rd.	IR3	05/06/03	Indoor	12	Primary	NT	ND	NT	0.140 J	ND	NT	0.066 ND	0.130 ND	ND	0.170 J	NT
355/365 E. Middlefield Rd.	IR4	05/06/03	Indoor	12	Primary	NT	ND	NT	0.160 J	ND	NT	0.066 ND	0.130 ND	ND	0.220 J	NT
355/365 E. Middlefield Rd.	IR5	05/06/03	Indoor	12	Primary	NT	ND	NT	0.900	ND	NT	0.065 ND	0.130 ND	ND	0.330	NT
355/365 E. Middlefield Rd.	IR6	05/06/03	Indoor	12	Primary	NT	ND	NT	1.400	ND	NT	0.140 ND	0.270 ND	ND	1.300	NT
355/365 E. Middlefield Rd.	IR7 (IR6D)	05/06/03	Indoor	12	Duplicate	NT	ND	NT	0.900	ND	NT	0.140 ND	0.270 ND	ND	1.100	NT
355/365 E. Middlefield Rd.	IR1	05/13/03	Indoor	12	Primary	NT	ND	NT	0.210	ND	NT	0.065 ND	0.130 ND	ND	0.560	NT
355/365 E. Middlefield Rd.	IR2	05/13/03	Indoor	12	Primary	NT	ND	NT	0.180 J	ND	NT	0.069 ND	0.023 J	ND	0.690	NT
355/365 E. Middlefield Rd.	IR3	05/13/03	Indoor	12	Primary	NT	ND	NT	0.170 J	ND	NT	0.065 ND	0.130 ND	ND	0.660	NT
355/365 E. Middlefield Rd.	IR4	05/13/03	Indoor	12	Primary	NT	ND	NT	0.350	ND	NT	0.066 ND	0.130 ND	ND	0.500	NT
355/365 E. Middlefield Rd.	IR5	05/13/03	Indoor	12	Primary	NT	ND	NT	0.840	ND	NT	0.066 ND	0.130 ND	ND	1.500	NT
355/365 E. Middlefield Rd.	IR6	05/13/03	Indoor	12	Primary	NT	ND	NT	0.610	ND	NT	0.069 ND	0.140 ND	ND	0.710	NT
355/365 E. Middlefield Rd.	IR7 (IR6D)	05/13/03	Indoor	12	Duplicate	NT	ND	NT	0.530	ND	NT	0.066 ND	0.270 ND	ND	0.660	NT
355/365 E. Middlefield Rd.	OP1	05/06/03	Outdoor	12	Primary	NT	ND	NT	0.340	ND	NT	0.066 ND	0.130 ND	ND	0.910	NT
355/365 E. Middlefield Rd.	OP2	05/06/03	Outdoor	12	Primary	NT	ND	NT	0.034 J	ND	NT	0.065 ND	0.130 ND	ND	0.780	NT
355/365 E. Middlefield Rd.	OP1	05/13/03	Outdoor	12	Primary	NT	ND	NT	0.300	ND	NT	0.068 ND	0.140 ND	ND	0.590	NT
355/365 E. Middlefield Rd.	OP2	05/13/03	Outdoor	12	Primary	NT	ND	NT	0.063 J	ND	NT	0.110 ND	0.220 ND	ND	0.440	NT
					Number of Samples	0	14	0	14	14	0	14	14	14	14	0
	Indoor - before mitigation				Number of Detects	0	0	0	14	0	0	0	1	0	14	0
					Minimum Detection	0	0	0	0.14	0	0	0	0.023	0	0.17	0
					Maximum Detection	0	0	0	1.4	0	0	0	0.023	0	1.5	0
					Number of Samples	0	4	0	4	4	0	4	4	4	4	0
	Outdoor				Number of Detects	0	0	0	4	0	0	0	0	0	4	0
					Minimum Detection	0	0	0	0.034	0	0	0	0	0	0.44	0
					Maximum Detection	0	0	0	0.34	0	0	0	0	0	0.91	0
355/365 E. Middlefield Rd.	IR2	09/04/03	Indoor	12	Primary	NT	ND	NT	0.170 J	ND	NT	0.070 ND	0.140 ND	ND	0.790	NT
355/365 E. Middlefield Rd.	IR4	09/04/03	Indoor	12	Primary	NT	ND	NT	0.190 ND	ND	NT	0.070 ND	0.140 ND	ND	0.640	NT
355/365 E. Middlefield Rd.	IR5	09/04/03	Indoor	12	Primary	NT	ND	NT	0.190 ND	ND	NT	0.070 ND	0.140 ND	ND	0.580	NT
355/365 E. Middlefield Rd.	IR6	09/04/03	Indoor	12	Primary	NT	ND	NT	0.091 J	ND	NT	0.070 ND	0.140 ND	ND	0.570	NT
355/365 E. Middlefield Rd.	IR7 (IR6D)	09/04/03	Indoor	12	Duplicate	NT	ND	NT	0.081 J	ND	NT	0.070 ND	0.140 ND	ND	0.630	NT
355/365 E. Middlefield Rd.	IR2	09/11/03	Indoor	12	Primary	NT	ND	NT	0.180 J	ND	NT	0.070 ND	0.140 ND	ND	0.670	NT
355/365 E. Middlefield Rd.	IR4	09/11/03	Indoor	12	Primary	NT	ND	NT	0.190 J	ND	NT	0.070 ND	0.140 ND	ND	0.640	NT
355/365 E. Middlefield Rd.	IR5	09/11/03	Indoor	12	Primary	NT	ND	NT	0.110 J	ND	NT	0.070 ND	0.140 ND	ND	0.480	NT
355/365 E. Middlefield Rd.	IR6	09/11/03	Indoor	12	Primary	NT	ND	NT	0.120 J	ND	NT	0.070 ND	0.140 ND	ND	0.460	NT
355/365 E. Middlefield Rd.	IR7 (IR6D)	09/11/03	Indoor	12	Duplicate	NT	ND	NT	0.110 J	ND	NT	0.070 ND	0.140 ND	ND	0.470	NT
355/365 E. Middlefield Rd.	IR5	12/23/03	Indoor	10	Primary	NT	ND	NT	0.300	ND	NT	0.070 ND	0.140 ND	ND	0.630	NT
355/365 E. Middlefield Rd.	IR6	12/23/03	Indoor	10	Primary	NT	ND	NT	0.270	ND	NT	0.068 ND	0.140 ND	ND	0.620	NT
355/365 E. Middlefield Rd.	OP1	09/04/03	Outdoor	12	Primary	NT	ND	NT	0.180 ND	ND	NT	0.130 ND	0.130 ND	ND	0.630	NT
355/365 E. Middlefield Rd.	OP2	09/04/03	Outdoor	12	Primary	NT	ND	NT	0.110 J	ND	NT	0.072 ND	0.140 ND	ND	0.650	NT
355/365 E. Middlefield Rd.	OP1	09/11/03	Outdoor	12	Primary	NT	ND	NT	0.660	ND	NT	0.150 ND	0.210	ND	0.470	NT
355/365 E. Middlefield Rd.	OP2	09/11/03	Outdoor	12	Primary	NT	ND	NT	0.110 J	NT	ND	NT 0.075 ND	0.150 ND	ND	0.480	NT
355/365 E. Middlefield Rd.	OP1	12/23/03	Outdoor	10	Primary	NT	0.270	NT	0.180 ND	NT	ND	NT 0.068 ND	0.140 ND	ND	0.550	NT
					Number of Samples	0	12	0	12	12	0	12	12	0	12	0
	Indoor - After refurbishing ventilation system				Number of Detects	0	0	0	10	0	0	0	0	0	12	0
					Minimum Detection	0	0	0	0.081	0	0	0	0	0	0.46	0
					Maximum Detection	0	0	0	0.3	0	0	0	0	0	0.79	0
					Number of Samples	0	5	0	5	5	0	5	5	0	5	0
	Outdoor				Number of Detects	0	1	0	3	0	0	0	1	0	5	0
					Minimum Detection	0	0.27	0	0.11	0	0	0	0.21	0	0.47	0
					Maximum Detection	0	0.27	0	0.66	0	0	0	0.21	0	0.65	0

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
15	15-1-24A-063003	06/30/03	Indoor	24	Primary	NT	0.046		0.160		1.215		0.020	ND	0.278	ND	0.031		0.530		0.012		NT	0.219	
15	15-2-81A-070103	07/01/03	Indoor	8	Primary	NT	0.084	ND	1.472		0.477		0.021	ND	0.280	ND	0.041	ND	0.041		0.057	ND	NT	0.242	
15	15-2-82A-070103	07/01/03	Indoor	8	Primary	NT	0.082	ND	1.866		0.875		0.020	ND	0.276	ND	0.040	ND	0.093		0.057	ND	NT	0.233	
15	15-2-83A-070103	07/01/03	Indoor	8	Primary	NT	0.013		2.561		0.877		0.020	ND	0.276	ND	0.040	ND	0.117		0.057	ND	NT	0.256	
15	15-2-24A-070203	07/02/03	Indoor	24	Primary	NT	0.083	ND	1.529		0.715		0.020	ND	0.277	ND	0.041	ND	0.061		0.057	ND	NT	0.229	
15	15-1-81A-070203	07/02/03	Indoor	8	Primary	NT	0.083	ND	0.903		0.467		0.020	ND	0.277	ND	0.041	ND	0.036		0.057	ND	NT	0.229	
15	15-1-82A-070203	07/02/03	Indoor	8	Primary	NT	0.082	ND	0.587		0.766		0.020	ND	0.276	ND	0.040	ND	0.077		0.057	ND	NT	0.217	
15	15-1-83A-070203	07/02/03	Indoor	8	Primary	NT	0.083	ND	0.610		0.933		0.020	ND	0.277	ND	0.041	ND	0.126		0.057	ND	NT	0.229	
15	15-1-24A-070703	07/07/03	Indoor	24	Primary	NT	0.083	ND	0.577		0.661		0.020	ND	0.277	ND	0.041	ND	0.065		0.057	ND	NT	0.241	
15	15-2-24A-070703	07/07/03	Indoor	24	Primary	NT	0.083	ND	1.183		0.606		0.020	ND	0.277	ND	0.041	ND	0.069		0.057	ND	NT	0.235	
15	15-2-24A-070803	07/08/03	Indoor	24	Primary	NT	0.083	ND	1.461		0.936		0.020	ND	0.278	ND	0.041	ND	0.102		0.057	ND	NT	0.263	
15	15-1-81A-070803	07/08/03	Indoor	8	Primary	NT	0.083	ND	0.766		0.485		0.020	ND	0.278	ND	0.041	ND	0.034		0.057	ND	NT	0.230	
15	15-1-82A-070803	07/08/03	Indoor	8	Primary	NT	0.083	ND	0.538		1.161		0.021	ND	0.279	ND	0.041	ND	0.098		0.057	ND	NT	0.236	
15	15-1-83A-070803	07/08/03	Indoor	8	Primary	NT	0.085	ND	0.631		0.899		0.021	ND	0.283	ND	0.041	ND	0.104		0.058	ND	NT	0.251	
15	15-1-24A-070903	07/09/03	Indoor	24	Primary	NT	0.083	ND	0.765		0.991		0.020	ND	0.277	ND	0.041	ND	0.089		0.057	ND	NT	0.246	
15	15-2-81A-070903	07/09/03	Indoor	8	Primary	NT	0.083	ND	1.391		0.606		0.020	ND	0.277	ND	0.041	ND	0.041		0.057	ND	NT	0.252	
15	15-2-81C-070903	07/09/03	Indoor	8	Split	NT	0.149	ND	1.252		0.446		0.047	ND	0.222	ND	0.073	ND	0.146	ND	0.732	ND	NT	0.246	
15	15-2-82A-070903	07/09/03	Indoor	8	Primary	NT	0.014		1.460		1.156		0.020	ND	0.277	ND	0.041	ND	0.142		0.057	ND	NT	0.257	
15	15-2-83A-070903	07/09/03	Indoor	8	Primary	NT	0.083	ND	1.739		0.826		0.020	ND	0.277	ND	0.041	ND	0.110		0.057	ND	NT	0.257	
15	15-1-24A-071003	07/10/03	Indoor	24	Primary	NT	0.083	ND	0.139	ND	0.010	ND	0.020	ND	0.278	ND	0.041	ND	0.057	ND	0.057	ND	NT	0.112	ND
15	15-1-24B-071003	07/10/03	Indoor	24	Duplicate	NT	0.083	ND	0.662		0.828		0.020	ND	0.278	ND	0.041	ND	0.073		0.057	ND	NT	0.381	
15	15-2-24A-071003	07/10/03	Indoor	24	Primary	NT	0.083	ND	1.534		0.828		0.020	ND	0.278	ND	0.041	ND	0.090		0.057	ND	NT	0.454	
15	15-1-24A-071103	07/11/03	Indoor	24	Primary	NT	0.083	ND	0.767		0.938		0.020	ND	0.278	ND	0.041	ND	0.094		0.057	ND	NT	0.269	
15	15-2-24A-071103	07/11/03	Indoor	24	Primary	NT	0.083	ND	1.045		1.048		0.020	ND	0.278	ND	0.013		0.102		0.057	ND	NT	0.280	
15	15-1-24A-071403	07/14/03	Indoor	24	Primary	NT	0.083	ND	0.694		1.098		0.020	ND	0.277	ND	0.041	ND	0.097		0.057	ND	NT	0.240	
15	15-2-81A-071403	07/14/03	Indoor	8	Primary	NT	0.083	ND	1.388		0.879		0.020	ND	0.277	ND	0.041	ND	0.085		0.057	ND	NT	0.302	
15	15-2-82A-071403	07/14/03	Indoor	8	Primary	NT	0.018		1.039		1.371		0.020	ND	0.276	ND	0.041	ND	0.142		0.057	ND	NT	0.301	
15	15-2-83A-071403	07/14/03	Indoor	8	Primary	NT	0.013		1.529		1.045		0.020	ND	0.277	ND	0.041	ND	0.134		0.057	ND	NT	0.235	
15	15-1-24A-071503	07/15/03	Indoor	24	Primary	NT	0.083	ND	0.541		0.824		0.020	ND	0.277	ND	0.041	ND	0.061		0.057	ND	NT	0.257	
15	15-2-24A-071503	07/15/03	Indoor	24	Primary	NT	0.083	ND	1.319		0.604		0.020	ND	0.277	ND	0.041	ND	0.061		0.057	ND	NT	0.262	
15	15-2-24A-071603	07/16/03	Indoor	24	Primary	NT	0.020		2.221		1.978		0.020	ND	0.277	ND	0.013		0.199		0.057	ND	NT	0.346	
15	15-1-81A-071603	07/16/03	Indoor	8	Primary	NT	0.083	ND	0.833		1.319		0.020	ND	0.277	ND	0.041	ND	0.077		0.057	ND	NT	0.374	
15	15-1-81B-071603	07/16/03	Indoor	8	Duplicate	NT	0.083	ND	0.764		1.209		0.020	ND	0.277	ND	0.041	ND	0.085		0.057	ND	NT	0.385	
15	15-1-82A-071603	07/16/03	Indoor	8	Primary	NT	0.032		0.472		6.040		0.020	ND	0.277	ND	0.017		0.332		0.057	ND	NT	0.268	
15	15-1-83A-071603	07/16/03	Indoor	8	Primary	NT	0.017		1.111		1.099		0.020	ND	0.277	ND	0.012		0.162		0.057	ND	NT	0.279	
15	15-1-24A-071703	07/17/03	Indoor	24	Primary	NT	0.075		1.110		2.252		0.020	ND	0.277	ND	0.017		0.312		0.013		NT	0.251	
15	15-2-24A-071703	07/17/03	Indoor	24	Primary	NT	0.026		2.081		2.307		0.020	ND	0.277	ND	0.018		0.260		0.057	ND	NT	0.257	
15	15-1-24A-071803	07/18/03	Indoor	24	Primary	NT	0.022		0.695		2.256		0.020	ND	0.277	ND	0.013		0.187		0.057	ND	NT	0.268	
15	15-2-24C-071803	07/18/03	Indoor	24	Primary	NT	0.133	ND	1.251		2.476		0.042	ND	0.197	ND	0.065	ND	0.248		0.650	ND	NT	0.291	
15	15-1-24A-072103	07/21/03	Indoor	24	Primary	NT	0.024		1.115		1.600		0.020	ND	0.278	ND	0.041	ND	0.126		0.057	ND	NT	0.460	
15	15-2-24A-072103	07/21/03	Indoor	24	Primary	NT	0.083	ND	1.667		1.429		0.020	ND	0.277	ND	0.019		0.150		0.057	ND	NT	0.782	
15	15-1-24A-072203	07/22/03	Indoor	24	Primary	NT	0.083	ND	0.765		1.707		0.020	ND	0.277	ND	0.012		0.142		0.057	ND	NT	0.263	
15	15-2-24A-072203	07/22/03	Indoor	24	Primary	NT	0.083	ND	1.530		0.991		0.020	ND	0.277	ND	0.041	ND	0.110		0.057	ND	NT	0.263	
15	15-1-24A-072303	07/23/03	Indoor	24	Primary	NT	0.083	ND	0.832		1.098		0.020	ND	0.277	ND	0.011		0.097		0.057	ND	NT	0.329	
15	15-2-24A-072303	07/23/03	Indoor	24	Primary	NT	0.015		2.011		1.043		0.020	ND	0.277	ND	0.012		0.114		0.057	ND	NT	0.363	
15	15-2-24C-072303	07/23/03	Indoor	24	Split	NT	0.161	ND	1.803		0.988		0.052	ND	0.240	ND	0.081	ND	0.158	ND	0.811	ND	NT	0.324	
15	15-2-24A-072403	07/24/03	Indoor	24	Primary	NT	0.032		1.732		1.261		0.020	ND	0.276	ND	0.040	ND	0.142		0.057	ND	NT	0.284	
15	15-1-81A-072403	07/24/03	Indoor	8	Primary	NT	0.083	ND	1.109		0.768		0.020	ND	0.053		0.013		0.089		0.057	ND	NT	0.273	
15	15-1-82A-072403	07/24/03	Indoor	8	Primary	NT	0.022		0.969		1.425		0.020	ND	0.276	ND	0.040	ND	0.138		0.057	ND	NT	0.262	
15	15-1-83A-072403	07/24/03	Indoor	8	Primary	NT	0.016		0.104		0.356		0.020	ND	0.276	ND	0.012		0.121		0.057	ND	NT	0.184	
15	15-1-24A-072503	07/25/03	Indoor	24	Primary	NT	0.083	ND	0.832		1.482		0.020	ND	0.277	ND	0.041	ND	0.122		0.057	ND	NT	0.251	
15	15-2-81A-072503	07/25/03	Indoor	8	Primary	NT	0.083	ND	1.110		0.659		0.020	ND	0.277	ND	0.041	ND	0.073		0.057	ND	NT	0.257	
15	15-2-82A-072503	07/25/03	Indoor	8	Primary	NT	0.014		1.665		1.153		0.020	ND	0.277	ND	0.011		0.134		0.057	ND	NT	0.268	
15	15-2-82B-072503	07/25/03	Indoor	8	Duplicate	NT	0.014		1.734		1.153		0.020	ND	0.277	ND	0.011		0.122		0.057	ND	NT	0.257	
15	15-2-83A-072503	07/25/03	Indoor	8	Primary	NT	0.019		1.178		1.207		0.020	ND	0.276	ND	0.024		0.198		0.057	ND	NT	0.273	
15	15-2-24A-072803	07/28/03	Indoor	24	Primary	NT	0.083	ND	1.389		1.100		0.020	ND	0.277	ND	0.017		0.154		0.057	ND	NT	0.285	
15	15-1-81A-072803	07/28/03	Indoor	8	Primary	NT	0.015		0.760		0.875		0.020	ND	0.276	ND	0.040	ND	0.081		0.057	ND	NT	0.239	
15	15-1-82A-072803	07/28/03	Indoor	8	Primary	NT	0.018		0.966		1.748		0.020	ND	0.275	ND	0.020		0.161		0.056	ND	NT	0.311	
15	15-1-83A-072803	07/28/03	Indoor	8	Primary	NT	0.015		0.904		1.267		0.020	ND	0.278	ND	0.017		0.187		0.057	ND	NT	0.241	
15	15-1-24A-072903	07/29/03	Indoor	24	Primary	NT	0.083	ND	0.694		0.659		0.020	ND	0.277	ND	0.041	ND	0.077		0.057	ND	NT	0.234	
15	15-2-24A-072903	07/29/03	Indoor	24	Primary	NT	0.015		1.249		1.099		0.020	ND	0.277	ND	0.013		0.142		0.057	ND	NT	0.246	
15	15-1-24A-073003	07/30/03	Indoor	24	Primary	NT	0.015		1.597		1.814		0.020	ND	0.277	ND	0.015		0.199		0.057	ND	NT	0.235	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE	trans-1,2-DCE		Freon 113	1,1,1-TCA
15	15-2-81A-073003	07/30/03	Indoor	8	Primary	NT	0.083	ND	1.041	0.352	0.020	ND	0.277	ND	0.041	ND	0.038	0.057	ND	NT	0.212
15	15-2-82A-073003	07/30/03	Indoor	8	Primary	NT	0.083	ND	1.528	0.825	0.020	ND	0.277	ND	0.013		0.122	0.057	ND	NT	0.190
15	15-2-83A-073003	07/30/03	Indoor	8	Primary	NT	0.014		2.079	0.823	0.020	ND	0.276	ND	0.019		0.190	0.057	ND	NT	1.338
15	15-1-24A-073103	07/31/03	Indoor	24	Primary	NT	0.014		1.113	1.157	0.020	ND	0.278	ND	0.016		0.134	0.057	ND	NT	0.179
15	15-1-24A-080103	08/01/03	Indoor	24	Primary	NT	0.083	ND	1.254	1.654	0.020	ND	0.278	ND	0.012		0.163	0.057	ND	NT	0.196
15	15-2-24A-080103	08/01/03	Indoor	24	Primary	NT	0.017		1.950	1.213	0.020	ND	0.278	ND	0.024		0.151	0.057	ND	NT	0.185
15	15-2-24A-080403	08/04/03	Indoor	24	Primary	NT	0.014		2.159	1.213	0.020	ND	0.278	ND	0.014		0.159	0.057	ND	NT	0.179
15	15-1-81A-080403	08/04/03	Indoor	8	Primary	NT	0.083	ND	1.114	1.489	0.020	ND	0.278	ND	0.013		0.191	0.057	ND	NT	0.191
15	15-1-82A-080403	08/04/03	Indoor	8	Primary	NT	0.017		0.835	1.929	0.020	ND	0.278	ND	0.020		0.212	0.057	ND	NT	0.174
15	15-1-83A-080403	08/04/03	Indoor	8	Primary	NT	0.018		1.324	1.379	0.020	ND	0.278	ND	0.015		0.220	0.057	ND	NT	0.224
15	15-1-24A-080503	08/05/03	Indoor	24	Primary	NT	0.016		0.908	1.770	0.021	ND	0.279	ND	0.016		0.208	0.057	ND	NT	0.382
15	15-1-24C-080503	08/05/03	Indoor	24	Split	NT	0.175	ND	0.838	1.715	0.055	ND	0.260	ND	0.086	ND	0.180	0.858	ND	NT	0.472
15	15-2-24A-080503	08/05/03	Indoor	24	Primary	NT	0.014		2.026	1.161	0.021	ND	0.279	ND	0.027		0.192	0.057	ND	NT	0.388
15	15-2-24B-080503	08/05/03	Indoor	24	Duplicate	NT	0.016		2.096	1.161	0.021	ND	0.279	ND	0.016		0.172	0.057	ND	NT	0.360
15	15-1-24A-080603	08/06/03	Indoor	24	Primary	NT	0.083	ND	0.098	0.504	0.021	ND	0.279	ND	0.041	ND	0.176	0.057	ND	NT	0.169
15	15-2-24A-080603	08/06/03	Indoor	24	Primary	NT	0.083	ND	1.259	1.163	0.021	ND	0.279	ND	0.016		0.155	0.057	ND	NT	0.253
15	15-1-24A-080703	08/07/03	Indoor	24	Primary	NT	0.083	ND	0.683	1.601	0.020	ND	0.278	ND	0.013		0.188	0.057	ND	NT	0.252
15	15-2-81A-080703	08/07/03	Indoor	8	Primary	NT	0.083	ND	1.259	0.471	0.021	ND	0.279	ND	0.041	ND	0.045	0.057	ND	NT	0.225
15	15-2-82A-080703	08/07/03	Indoor	8	Primary	NT	0.017		1.887	1.826	0.021	ND	0.279	ND	0.020		0.249	0.057	ND	NT	0.231
15	15-2-83A-080703	08/07/03	Indoor	8	Primary	NT	0.016		2.379	1.163	0.021	ND	0.279	ND	0.020		0.217	0.057	ND	NT	0.259
15	15-2-83B-080703	08/07/03	Indoor	8	Duplicate	NT	0.018		2.379	1.219	0.021	ND	0.279	ND	0.017		0.213	0.057	ND	NT	0.259
15	15-1-24A-081103	08/11/03	Indoor	24	Primary	NT	0.083	ND	0.642	1.932	0.020	ND	0.278	ND	0.021		0.224	0.057	ND	NT	0.258
15	15-2-24A-081103	08/11/03	Indoor	24	Primary	NT	0.016		1.395	1.214	0.020	ND	0.278	ND	0.016		0.208	0.057	ND	NT	0.247
15	15-2-82A-081203	08/12/03	Indoor	8	Primary	NT	0.083	ND	1.251	0.881	0.020	ND	0.277	ND	0.041	ND	0.118	0.057	ND	NT	0.229
15	15-2-83A-081203	08/12/03	Indoor	8	Primary	NT	0.020		0.904	1.487	0.012		0.277	ND	0.020		0.264	0.011		NT	0.274
15	15-1-24A-081303	08/13/03	Indoor	24	Primary	NT	0.083	ND	0.613	1.765	0.020	ND	0.278	ND	0.013		0.171	0.057	ND	NT	0.263
15	15-2-24A-081303	08/13/03	Indoor	24	Primary	NT	0.083	ND	1.324	1.213	0.020	ND	0.278	ND	0.011		0.155	0.057	ND	NT	0.252
15	15-2-24B-081303	08/13/03	Indoor	24	Duplicate	NT	0.083	ND	1.324	1.158	0.020	ND	0.278	ND	0.041	ND	0.155	0.057	ND	NT	0.247
15	15-1-24A-081403	08/14/03	Indoor	24	Primary	NT	0.083	ND	0.621	1.767	0.021	ND	0.278	ND	0.023		0.269	0.057	ND	NT	0.196
15	15-1-24B-081403	08/14/03	Indoor	24	Duplicate	NT	0.040		1.326	3.755	0.019		0.278	ND	0.045		0.571	0.021		NT	0.673
15	15-2-24A-081403	08/14/03	Indoor	24	Primary	NT	0.083	ND	1.115	1.214	0.020	ND	0.278	ND	0.014		0.155	0.057	ND	NT	0.247
15	15-2-24A-081503	08/15/03	Indoor	24	Primary	NT	0.083	ND	1.187	1.051	0.021	ND	0.279	ND	0.013		0.163	0.057	ND	NT	0.287
15	15-1-81A-081503	08/15/03	Indoor	8	Primary	NT	0.083	ND	0.614	0.607	0.020	ND	0.278	ND	0.041	ND	0.057	0.057	ND	NT	0.280
15	15-1-81B-081503	08/15/03	Indoor	8	Duplicate	NT	0.083	ND	0.558	0.552	0.020	ND	0.278	ND	0.041	ND	0.053	0.057	ND	NT	0.292
15	15-1-82A-081503	08/15/03	Indoor	8	Primary	NT	0.022		0.592	3.087	0.020	ND	0.278	ND	0.015		0.228	0.057	ND	NT	0.263
15	15-1-83A-081503	08/15/03	Indoor	8	Primary	NT	0.017		0.586	1.491	0.021	ND	0.278	ND	0.015		0.204	0.057	ND	NT	0.275
15	15-1-24A-081803	08/18/03	Indoor	24	Primary	NT	0.083	ND	0.695	1.926	0.020	ND	0.277	ND	0.013		0.158	0.057	ND	NT	0.268
15	15-2-24A-081803	08/18/03	Indoor	24	Primary	NT	0.083	ND	1.807	0.880	0.020	ND	0.277	ND	0.012		0.126	0.057	ND	NT	0.257
15	15-1-24A-081903	08/19/03	Indoor	24	Primary	NT	0.083	ND	0.660	0.990	0.013		0.277	ND	0.041	ND	0.106	0.057	ND	NT	0.268
15	15-1-24C-081903	08/19/03	Indoor	24	Split	NT	0.157	ND	0.507	0.770	0.107		0.234	ND	0.077	ND	0.154	ND 0.771	ND	NT	0.212
15	15-2-81A-081903	08/19/03	Indoor	8	Primary	NT	0.083	ND	1.042	0.336	0.020	ND	0.277	ND	0.041	ND	0.049	0.057	ND	NT	0.240
15	15-2-82A-081903	08/19/03	Indoor	8	Primary	NT	0.083	ND	1.319	0.604	0.020	ND	0.277	ND	0.041	ND	0.081	0.057	ND	NT	0.235
15	15-2-83A-081903	08/19/03	Indoor	8	Primary	NT	0.083	ND	1.736	0.825	0.025		0.277	ND	0.035		0.244	0.018		NT	0.358
15	15-2-24A-082003	08/20/03	Indoor	24	Primary	NT	0.083	ND	1.874	0.879	0.020	ND	0.277	ND	0.041	ND	0.130	0.057	ND	NT	0.257
15	15-1-24A-082103	08/21/03	Indoor	24	Primary	NT	0.083	ND	0.577	1.375	0.020	ND	0.277	ND	0.041	ND	0.130	0.057	ND	NT	0.246
15	15-2-24A-082103	08/21/03	Indoor	24	Primary	NT	0.083	ND	1.459	0.715	0.020	ND	0.277	ND	0.012		0.110	0.057	ND	NT	0.246
15	15-2-24B-082103	08/21/03	Indoor	24	Duplicate	NT	0.083	ND	1.390	0.715	0.020	ND	0.277	ND	0.011		0.110	0.057	ND	NT	0.229
15	15-2-24A-082203	08/22/03	Indoor	24	Primary	NT	0.083	ND	0.973	0.715	0.020	ND	0.277	ND	0.041	ND	0.187	0.057	ND	NT	0.274
15	15-1-82A-082203	08/22/03	Indoor	8	Primary	NT	0.083	ND	0.444	1.209	0.020	ND	0.277	ND	0.041	ND	0.114	0.057	ND	NT	0.184
15	15-2-24A-082503	08/25/03	Indoor	24	Primary	NT	0.083	ND	1.596	0.714	0.020	ND	0.277	ND	0.041	ND	0.105	0.057	ND	NT	0.212
15	15-1-81A-082503	08/25/03	Indoor	8	Primary	NT	0.083	ND	0.666	0.511	0.020	ND	0.277	ND	0.041	ND	0.077	0.014		NT	0.218
15	15-1-82A-082503	08/25/03	Indoor	8	Primary	NT	0.083	ND	0.541	1.372	0.020	ND	0.277	ND	0.014		0.170	0.057	ND	NT	0.217
15	15-1-83A-082503	08/25/03	Indoor	8	Primary	NT	0.083	ND	0.514	1.154	0.020	ND	0.277	ND	0.015		0.138	0.057	ND	NT	0.201
15	15-1-24A-082603	08/26/03	Indoor	24	Primary	NT	0.083	ND	0.569	1.263	0.020	ND	0.277	ND	0.018		0.162	0.057	ND	NT	0.229
15	15-2-24A-082603	08/26/03	Indoor	24	Primary	NT	0.083	ND	1.110	1.043	0.020	ND	0.277	ND	0.041	ND	0.146	0.057	ND	NT	0.206
15	15-1-24A-082703	08/27/03	Indoor	24	Primary	NT	0.083	ND	0.493	0.990	0.020	ND	0.277	ND	0.041	ND	0.110	0.057	ND	NT	0.212
15	15-1-24B-082703	08/27/03	Indoor	24	Duplicate	NT	0.083	ND	0.438	1.100	0.020	ND	0.277	ND	0.041	ND	0.130	0.057	ND	NT	0.196
15	15-2-24A-082703	08/27/03	Indoor	24	Primary	NT	0.083	ND	1.112	0.770	0.020	ND	0.277	ND	0.041	ND	0.106	0.057	ND	NT	0.207
15	15-1-24A-082803	08/28/03	Indoor	24	Primary	NT	0.083	ND	0.480	0.991	0.020	ND	0.277	ND	0.041	ND	0.130	0.057	ND	NT	0.218
15	15-2-24B-082803	08/28/03	Indoor	24	Primary	NT	0.083	ND	1.043	0.826	0.020	ND	0.277	ND	0.013		0.138	0.057	ND	NT	0.207
15	15-2-81A-082903	08/29/03	Indoor	8	Primary	NT	0.137	ND	0.765	0.363	0.034	ND	0.462	ND	0.069	ND	0.053	0.093	ND	NT	0.145
15	15-2-82A-082903	08/29/03	Indoor	8	Primary	NT	0.083	ND	0.972	0.418	0.020	ND	0.277	ND	0.041	ND	0.053	0.057	ND	NT	0.173
15	15-2-83A-082903	08/29/03	Indoor	8	Primary	NT	0.083	ND	0.626	0.716	0.020	ND	0.277	ND	0.041	ND	0.089	0.057	ND	NT	0.196
15	15-1-24A-090203	09/02/03	Indoor	24	Primary	NT	0.083	ND	0.471	0.659	0.020	ND	0.277	ND	0.041	ND	0.077	0.057	ND	NT	0.234
15	15-1-24B-090203	09/02/03	Indoor	24	Duplicate	NT	0.083	ND	0.659	0.768	0.020	ND	0.277	ND	0.041	ND	0.081	0.057	ND	NT	0.223
15	15-2-81A-090203	09/02/03	Indoor	8	Primary	NT	0.083	ND	0.832	0.329	0.020	ND	0.277	ND	0.041	ND	0.045	0.057	ND	NT	0.229
15	15-2-82A-090203	09/02/03	Indoor	8	Primary	NT	0.083	ND	1.248	0.604	0.020	ND	0.277	ND	0.041	ND	0.089	0.057	ND	NT	0.229
15	15-2-83A-090203	09/02/03	Indoor	8	Primary	NT	0.083	ND	1.871	0.713	0.020	ND	0.276	ND	0.041	ND	0.122	0.057	ND	NT	0.206
15	15-1-24A-090303	09/03/03	Indoor	24	Primary	NT	0.083	ND	0.472	0.604	0.020	ND	0.277	ND	0.041	ND	0.097	0.057	ND	NT	0.207

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE	trans-1,2-DCE		Freon 113	1,1,1-TCA
15	15-1-24A-090403	09/04/03	Indoor	24	Primary	NT	0.083	ND	0.508	0.660	0.020	ND	0.039		0.041	ND	0.098	0.057	ND	NT	0.224
15	15-2-24A-090403	09/04/03	Indoor	24	Primary	NT	0.083	ND	1.321	0.550	0.020	ND	0.277	ND	0.041	ND	0.102	0.057	ND	NT	0.218
15	15-2-24A-090503	09/05/03	Indoor	24	Primary	NT	0.083	ND	0.766	0.716	0.020	ND	0.278	ND	0.041	ND	0.122	0.057	ND	NT	0.213
15	15-2-24B-090503	09/05/03	Indoor	24	Duplicate	NT	0.083	ND	0.766	0.771	0.020	ND	0.278	ND	0.041	ND	0.126	0.057	ND	NT	0.202
15	15-1-81A-090503	09/05/03	Indoor	8	Primary	NT	0.083	ND	0.376	0.254	0.020	ND	0.278	ND	0.041	ND	0.030	0.057	ND	NT	0.174
15	15-1-82A-090503	09/05/03	Indoor	8	Primary	NT	0.016		0.480	1.321	0.020	ND	0.277	ND	0.018		0.244	0.057	ND	NT	0.123
15	15-1-83A-090503	09/05/03	Indoor	8	Primary	NT	0.083	ND	0.446	1.047	0.020	ND	0.278	ND	0.041	ND	0.183	0.057	ND	NT	0.230
15	15-1-24A-090803	09/08/03	Indoor	24	Primary	NT	0.014		0.050	0.231	0.015		0.277	ND	0.014		0.126	0.057	ND	NT	0.112
15	15-2-81A-090803	09/08/03	Indoor	8	Primary	NT	0.083	ND	0.765	0.463	0.020	ND	0.278	ND	0.041	ND	0.069	0.057	ND	NT	0.201
15	15-2-82A-090803	09/08/03	Indoor	8	Primary	NT	0.083	ND	0.695	1.595	0.020	ND	0.277	ND	0.030		0.382	0.057	ND	NT	0.218
15	15-1-24A-090903	09/09/03	Indoor	24	Primary	NT	0.083	ND	0.500	0.714	0.020	ND	0.277	ND	0.041	ND	0.097	0.057	ND	NT	0.240
15	15-2-24A-090903	09/09/03	Indoor	24	Primary	NT	0.083	ND	0.902	0.659	0.020	ND	0.277	ND	0.017		0.118	0.057	ND	NT	0.207
15	15-1-24A-091003	09/10/03	Indoor	24	Primary	NT	0.017		0.626	1.431	0.020	ND	0.277	ND	0.028		0.219	0.057	ND	NT	0.229
15	15-2-24A-091003	09/10/03	Indoor	24	Primary	NT	0.083	ND	0.973	1.156	0.020	ND	0.277	ND	0.025		0.207	0.057	ND	NT	0.229
15	15-1-24C-091103	09/11/03	Indoor	24	Primary	NT	0.137	ND	0.584	1.101	0.577		0.204	ND	0.065	ND	0.159	0.651	ND	NT	0.241
15	15-2-24A-091103	09/11/03	Indoor	24	Primary	NT	0.015		1.046	1.159	0.020	ND	0.278	ND	0.018		0.220	0.013		NT	0.252
15	15-2-24B-091103	09/11/03	Indoor	24	Duplicate	NT	0.016		1.046	1.214	0.020	ND	0.278	ND	0.020		0.240	0.014		NT	0.275
15	15-2-24A-091203	09/12/03	Indoor	24	Primary	NT	0.083	ND	0.901	1.043	0.020	ND	0.277	ND	0.026		0.211	0.024		NT	0.257
15	15-1-81A-091203	09/12/03	Indoor	8	Primary	NT	0.083	ND	0.694	0.824	0.020	ND	0.277	ND	0.041	ND	0.130	0.057		NT	0.262
15	15-1-82A-091203	09/12/03	Indoor	8	Primary	NT	0.014		0.595	1.259	0.020	ND	0.276	ND	0.040	ND	0.206	0.057	ND	NT	0.222
15	15-1-83A-091203	09/12/03	Indoor	8	Primary	NT	0.022		1.042	2.365	0.019		0.277	ND	0.029		0.329	0.019		NT	0.302
15	15-1-24A-091503	09/15/03	Indoor	24	Primary	NT	0.083	ND	0.459	0.935	0.020	ND	0.277	ND	0.041	ND	0.118	0.057	ND	NT	0.229
15	15-2-24A-091503	09/15/03	Indoor	24	Primary	NT	0.083	ND	0.695	1.815	0.020	ND	0.277	ND	0.041	ND	0.110	0.057	ND	NT	0.212
15	15-2-24A-091603	09/16/03	Indoor	24	Primary	NT	0.083	ND	0.660	2.419	0.020	ND	0.277	ND	0.014		0.150	0.057	ND	NT	0.223
15	15-2-24A-091703	09/17/03	Indoor	24	Primary	NT	0.014		0.832	3.185	0.020	ND	0.277	ND	0.017		0.207	0.012		NT	0.268
15	15-1-81A-091703	09/17/03	Indoor	8	Primary	NT	0.083	ND	0.479	1.813	0.020	ND	0.277	ND	0.041	ND	0.110	0.057	ND	NT	0.212
15	15-1-24A-091803	09/18/03	Indoor	24	Primary	NT	0.083	ND	0.832	2.634	0.020	ND	0.277	ND	0.011		0.174	0.012		NT	0.268
15	15-2-81A-091803	09/18/03	Indoor	8	Primary	NT	0.083	ND	1.387	1.482	0.020	ND	0.277	ND	0.041	ND	0.126	0.017		NT	0.268
15	15-2-82A-091803	09/18/03	Indoor	8	Primary	NT	0.015		0.970	1.920	0.020	ND	0.276	ND	0.014		0.227	0.057	ND	NT	0.273
15	15-2-83A-091803	09/18/03	Indoor	8	Primary	NT	0.083	ND	0.562	1.812	0.020	ND	0.277	ND	0.011		0.154	0.057	ND	NT	0.240
15	15-1-24A-091903	09/19/03	Indoor	24	Primary	NT	0.083	ND	0.374	2.413	0.020	ND	0.276	ND	0.040	ND	0.146	0.057	ND	NT	0.240
15	15-2-24A-091903	09/19/03	Indoor	24	Primary	NT	0.083	ND	0.596	2.523	0.020	ND	0.276	ND	0.011		0.146	0.057	ND	NT	0.240
15	15-1-24A-092203	09/22/03	Indoor	24	Primary	NT	0.082	ND	11.046	1.858	0.020	ND	0.275	ND	0.011		0.165	0.013		NT	0.255
15	15-2-24A-092203	09/22/03	Indoor	24	Primary	NT	0.082	ND	13.118	1.476	0.020	ND	0.275	ND	0.012		0.157	0.012		NT	0.250
15	15-1-24A-092303	09/23/03	Indoor	24	Primary	NT	0.013		0.484	2.301	0.020	ND	0.276	ND	0.014		0.154	0.057	ND	NT	0.217
15	15-2-81A-092303	09/23/03	Indoor	8	Primary	NT	0.083	ND	0.969	1.260	0.020	ND	0.276	ND	0.040	ND	0.097	0.057	ND	NT	0.217
15	15-2-82A-092303	09/23/03	Indoor	8	Primary	NT	0.083	ND	0.692	1.754	0.020	ND	0.276	ND	0.040	ND	0.158	0.057	ND	NT	0.223
15	15-2-83A-092303	09/23/03	Indoor	8	Primary	NT	0.083	ND	0.643	1.807	0.020	ND	0.276	ND	0.017		0.210	0.057	ND	NT	0.211
15	15-1-24A-092403	09/24/03	Indoor	24	Primary	NT	0.017		0.389	2.807	0.020	ND	0.277	ND	0.017		0.199	0.057	ND	NT	0.235
15	15-2-24A-092403	09/24/03	Indoor	24	Primary	NT	0.016		0.612	2.477	0.020	ND	0.277	ND	0.017		0.187	0.057	ND	NT	0.235
15	15-1-24A-092503	09/25/03	Indoor	24	Primary	NT	0.083	ND	0.377	3.924	0.021	ND	0.278	ND	0.041	ND	0.400	0.057	ND	NT	0.129
15	15-2-24A-092503	09/25/03	Indoor	24	Primary	NT	0.020		0.538	2.874	0.021	ND	0.278	ND	0.021		0.249	0.057	ND	NT	0.225
15	15-2-24A-092603	09/26/03	Indoor	24	Primary	NT	0.083	ND	0.765	2.972	0.020	ND	0.277	ND	0.026		0.284	0.057	ND	NT	0.229
15	15-1-81A-092603	09/26/03	Indoor	8	Primary	NT	0.019		0.480	2.147	0.020	ND	0.277	ND	0.023		0.244	0.057	ND	NT	0.246
15	15-1-82A-092603	09/26/03	Indoor	8	Primary	NT	0.024		0.493	1.979	0.020	ND	0.277	ND	0.026		0.309	0.057	ND	NT	0.235
15	15-1-83A-092603	09/26/03	Indoor	8	Primary	NT	0.029		0.445	1.928	0.020	ND	0.278	ND	0.035		0.342	0.057	ND	NT	0.235
15	15-2-24A-120103	12/01/03	Indoor	24	Primary	NT	0.075		0.365	1.110	0.012		0.280	ND	0.193		1.229	0.025		NT	0.333
15	15-1-81A-120103	12/01/03	Indoor	8	Primary	NT	0.050		0.406	1.607	0.021	ND	0.279	ND	0.119		0.736	0.015		NT	0.220
15	15-1-83A-120103	12/01/03	Indoor	8	Primary	NT	0.075		0.280	1.164	0.021	ND	0.279	ND	0.192		1.309	0.024		NT	0.225
15	15-2-24C-120303	12/03/03	Indoor	24	Primary	NT	0.134	ND	0.843	2.392	0.042	ND	0.199	ND	0.082		0.821	0.657	ND	NT	0.379
15	15-2-82A-120903	12/09/03	Indoor	8	Primary	NT	0.058		0.216	3.145	0.013		0.278	ND	0.098		0.815	0.011		NT	0.471
15	15-2-83A-120903	12/09/03	Indoor	8	Primary	NT	0.075		0.525	5.102	0.021	ND	0.051		0.135		1.065	0.014		NT	0.423
15	15-1-24A-121103	12/11/03	Indoor	24	Primary	NT	0.050		0.344	4.165	0.023		0.280	ND	0.082		0.779	0.015		NT	0.288
15	15-2-24A-121603	12/16/03	Indoor	24	Primary	NT	0.035		0.777	2.126	0.019		0.282	ND	0.050		0.496	0.015		NT	0.466
15	15-1-81A-121603	12/16/03	Indoor	8	Primary	NT	0.016		0.389	1.287	0.021	ND	0.282	ND	0.016		0.215	0.058	ND	NT	0.239
15	15-1-82A-121603	12/16/03	Indoor	8	Primary	NT	0.084	ND	0.593	3.243	0.021	ND	0.282	ND	0.021		0.314	0.012		NT	0.318
15	15-1-83A-121603	12/16/03	Indoor	8	Primary	NT	0.046		0.389	4.927	0.021	ND	0.282	ND	0.054		0.661	0.019		NT	0.256
15	15-2-81A-121903	12/19/03	Indoor	8	Primary	NT	0.083	ND	1.048	2.102	0.021	ND	0.279	ND	0.032		0.355	0.019		NT	0.354
15	15-2-82A-121903	12/19/03	Indoor	8	Primary	NT	0.046		0.356	1.438	0.019		0.279	ND	0.106		0.939	0.013		NT	0.388
15	15-2-83A-121903	12/19/03	Indoor	8	Primary	NT	0.050		0.175	2.105	0.026		0.409	ND	0.110		0.982	0.086	ND	NT	0.225
15	15-1-24A-122203	12/22/03	Indoor	24	Primary	NT	0.016		0.638	2.274	0.012		0.279	ND	0.036		0.336	0.015		NT	0.242
15	15-1-24C-122903	12/22/03	Indoor	24	Split	NT	0.155	ND	0.434	2.218	0.195		0.230	ND	0.074	ND	0.532	0.737	ND	NT	0.220
15	15-2-24A-122203	12/22/03	Indoor	24	Primary	NT	0.017		0.680	1.886	0.021	ND	0.279	ND	0.039		0.373	0.017		NT	0.259
15	15-1-24A-122903	12/29/03	Indoor	24	Primary	NT	0.083	ND	0.381	2.524	0.020	ND	0.276	ND	0.061		0.486	0.057	ND	NT	0.217
15	15-2-24A-122903	12/29/03	Indoor	24	Primary	NT	0.025		0.485	2.689	0.020	ND	0.276	ND	0.061		0.486	0.057	ND	NT	0.217
15	15-2-24A-010704	01/07/04	Indoor	24	Primary	NT	0.046		0.441	1.440	0.011		0.279	ND	0.090		0.613	0.015		NT	0.214
15	15-1-81A-010704	01/07/04	Indoor	8	Primary	NT	0.040		0.595	1.163	0.021	ND	0.279	ND	0.082		0.573	0.013		NT	0.203
15	15-1-83A-010704	01/07/04	Indoor	8	Primary	NT	0.067		0.265	1.382	0.017		0.279	ND	0.147		0.980	0.023		NT	0.191

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA
15	15-2-83A-010704	01/07/04	Indoor	8	Primary	NT	0.067		0.314		1.327		0.013		0.279	ND	0.139		0.939		0.022		NT	0.214
15	15-1-24A-010904	01/09/04	Indoor	24	Primary	NT	0.063		0.435		2.168		0.021	ND	0.280	ND	0.115		0.780		0.022		NT	0.209
15	15-2-24A-010904	01/09/04	Indoor	24	Primary	NT	0.067		0.358		1.890		0.021	ND	0.280	ND	0.115		0.821		0.021		NT	0.249
15	15-2-24A-011304	01/13/04	Indoor	24	Primary	NT	0.035		0.592		1.897		0.021	ND	0.281	ND	0.045		0.297		0.016		NT	0.295
15	15-2-24B-011304	01/13/04	Indoor	24	Duplicate	NT	0.034		0.599		2.287		0.021	ND	0.281	ND	0.045		0.288		0.015		NT	0.283
15	15-1-81A-011304	01/13/04	Indoor	8	Primary	NT	0.025		0.479		1.562		0.021	ND	0.281	ND	0.033		0.202		0.058	ND	NT	0.255
15	15-1-82A-011304	01/13/04	Indoor	8	Primary	NT	0.033		0.613		1.784		0.021	ND	0.281	ND	0.045		0.284		0.011		NT	0.261
15	15-1-83A-011304	01/13/04	Indoor	8	Primary	NT	0.042		0.571		2.789		0.021	ND	0.281	ND	0.049		0.362		0.021		NT	0.323
15	15-1-24A-011504	01/15/04	Indoor	24	Primary	NT	0.019		0.301		2.883		0.021	ND	0.279	ND	0.012		0.205		0.057	ND	NT	0.225
15	15-1-24B-011504	01/15/04	Indoor	24	Duplicate	NT	0.084	ND	0.287		2.273		0.021	ND	0.279	ND	0.015		0.143		0.057	ND	NT	0.214
15	15-2-24A-011504	01/15/04	Indoor	24	Primary	NT	0.017		0.343		1.608		0.021	ND	0.279	ND	0.018		0.147		0.057	ND	NT	0.237
15	15-1-24A-012004	01/20/04	Indoor	24	Primary	NT	0.030		0.477		2.942		0.021	ND	0.280	ND	0.027		0.221		0.011		NT	0.237
15	15-1-24B-012004	01/20/04	Indoor	24	Duplicate	NT	0.035		0.540		3.441		0.021	ND	0.280	ND	0.032		0.254		0.057	ND	NT	0.259
15	15-2-24A-012004	01/20/04	Indoor	24	Primary	NT	0.027		0.540		2.609		0.021	ND	0.280	ND	0.030		0.230		0.057	ND	NT	0.248
15	15-2-24A-012204	01/22/04	Indoor	24	Primary	NT	0.036		0.600		1.677		0.021	ND	0.282	ND	0.037		0.293		0.016		NT	0.295
15	15-1-81A-012204	01/22/04	Indoor	8	Primary	NT	0.084	ND	0.593		1.062		0.021	ND	0.282	ND	0.041	ND	0.124		0.012		NT	0.250
15	15-1-82A-012204	01/22/04	Indoor	8	Primary	NT	0.025		0.451		1.452		0.021	ND	0.281	ND	0.028		0.293		0.011		NT	0.278
15	15-1-83A-012204	01/22/04	Indoor	8	Primary	NT	0.059		0.608		3.188		0.015		0.282	ND	0.070		0.743		0.025		NT	0.318
15	15-1-24A-012604	01/26/04	Indoor	24	Primary	NT	0.084	ND	0.246		1.059		0.021	ND	0.281	ND	0.012		0.082		0.058	ND	NT	0.221
15	15-1-24B-012604	01/26/04	Indoor	24	Duplicate	NT	0.018		0.275		2.006		0.021	ND	0.281	ND	0.012		0.140		0.058	ND	NT	0.227
15	15-2-81A-012604	01/26/04	Indoor	8	Primary	NT	0.084	ND	0.430		0.613		0.021	ND	0.281	ND	0.041	ND	0.095		0.058	ND	NT	0.215
15	15-2-82A-012604	01/26/04	Indoor	8	Primary	NT	0.084	ND	0.190		0.552		0.015		0.281	ND	0.041	ND	0.128		0.058	ND	NT	0.215
15	15-2-83A-012604	01/26/04	Indoor	8	Primary	NT	0.084	ND	0.162		0.557		0.021	ND	0.281	ND	0.041	ND	0.107		0.058	ND	NT	0.192
15	15-1-24A-012804	01/28/04	Indoor	24	Primary	NT	0.024		1.410		1.283		0.021	ND	0.281	ND	0.025		0.260		0.058	ND	NT	0.266
15	15-2-24A-012804	01/28/04	Indoor	24	Primary	NT	0.021		1.480		1.004		0.021	ND	0.281	ND	0.020		0.264		0.058	ND	NT	0.244
15	15-1-24A-020304	02/03/04	Indoor	24	Primary	NT	0.046		0.412		2.817		0.011		0.278	ND	0.571		0.192		0.057	ND	NT	5.612
15	15-2-24A-020304	02/03/04	Indoor	24	Primary	NT	0.025		0.481		1.546		0.021	ND	0.278	ND	0.019		0.326		0.057	ND	NT	0.331
15	15-2-24A-020604	02/06/04	Indoor	24	Primary	NT	0.041		0.594		2.855		0.021	ND	0.282	ND	0.041		0.537		0.014		NT	0.393
15	15-1-81A-020604	02/06/04	Indoor	8	Primary	NT	0.029		0.990		3.023		0.021	ND	0.282	ND	0.023		0.351		0.014		NT	0.284
15	15-1-82A-020604	02/06/04	Indoor	8	Primary	NT	0.024		0.198		3.135		0.021	ND	0.282	ND	0.016		0.302		0.058	ND	NT	0.307
15	15-1-83A-020604	02/06/04	Indoor	8	Primary	NT	0.046		0.269		5.375		0.021	ND	0.282	ND	0.039		0.579		0.016		NT	0.262
15	15-1-83C-020604	02/06/04	Indoor	8	Split	NT	0.148	ND	0.248	ND	4.591		0.048	ND	0.219	ND	0.079		0.413		0.744	ND	NT	0.233
15	15-1-24A-021004	02/10/04	Indoor	24	Primary	NT	0.029		0.507		4.682		0.021	ND	0.281	ND	0.058		0.535		0.033		NT	0.317
15	15-2-24A-021004	02/10/04	Indoor	24	Primary	NT	0.059		0.676		3.846		0.014		0.281	ND	0.070		0.700		0.015		NT	0.430
15	15-1-24A-021204	02/12/04	Indoor	24	Primary	NT	0.046		0.526		4.888		0.021	ND	0.280	ND	0.045		0.533		0.024		NT	0.305
15	15-2-81A-021204	02/12/04	Indoor	8	Primary	NT	0.050		0.702		3.389		0.021	ND	0.280	ND	0.049		0.451		0.016		NT	0.310
15	15-2-82A-021204	02/12/04	Indoor	8	Primary	NT	0.067		0.414		3.997		0.021	ND	0.280	ND	0.086		0.533		0.023		NT	0.350
15	15-2-83A-021204	02/12/04	Indoor	8	Primary	NT	0.113		0.772		7.225		0.011		0.280	ND	0.135		0.903		0.045		NT	0.356
15	15-1-24A-021804	02/18/04	Indoor	24	Primary	NT	0.029		0.428		2.444		0.021	ND	0.280	ND	0.029		0.283		0.057	ND	NT	0.310
15	15-2-81A-021804	02/18/04	Indoor	8	Primary	NT	0.084	ND	0.843		1.000		0.021	ND	0.280	ND	0.015		0.152		0.057	ND	NT	0.220
15	15-2-82A-021804	02/18/04	Indoor	8	Primary	NT	0.035		1.055		2.005		0.021	ND	0.281	ND	0.035		0.317		0.058	ND	NT	0.402
15	15-2-83A-021804	02/18/04	Indoor	8	Primary	NT	0.042		1.050		2.439		0.021	ND	0.279	ND	0.049		0.409		0.012		NT	0.332
15	15-1-24A-022004	02/20/04	Indoor	24	Primary	NT	0.027		0.356		2.431		0.021	ND	0.278	ND	0.025		0.237		0.013		NT	0.286
15	15-2-24A-022004	02/20/04	Indoor	24	Primary	NT	0.083	ND	0.433		2.265		0.021	ND	0.278	ND	0.036		0.302		0.017		NT	0.399
15	15-2-24C-022004	02/20/04	Indoor	24	Split	NT	0.133	ND	0.356		1.933		0.042	ND	0.198	ND	0.065	ND	0.310		0.653	ND	NT	0.348
15	15-2-24A-022304	02/23/04	Indoor	24	Primary	NT	0.021		0.369		1.158		0.014		0.278	ND	0.018		0.147		0.057	ND	NT	0.342
15	15-1-81A-022304	02/23/04	Indoor	8	Primary	NT	0.016		0.425		1.322		0.020	ND	0.278	ND	0.012		0.118		0.057	ND	NT	0.274
15	15-1-81B-022304	02/23/04	Indoor	8	Duplicate	NT	0.016		0.452		1.322		0.020	ND	0.278	ND	0.013		0.126		0.057	ND	NT	0.297
15	15-1-83A-022304	02/23/04	Indoor	8	Primary	NT	0.019		0.208		1.540		0.014		0.277	ND	0.016		0.154		0.057	ND	NT	0.274
15	15-1-24A-022504	02/25/04	Indoor	24	Primary	NT	0.016		0.312		1.151		0.020	ND	0.276	ND	0.013		0.125		0.057	ND	NT	0.234
15	15-1-24C-022504	02/25/04	Indoor	24	Split	NT	0.132	ND	0.222	ND	0.987		0.042	ND	0.737		0.065	ND	0.130	ND	0.648	ND	NT	0.201
15	15-2-81A-022504	02/25/04	Indoor	8	Primary	NT	0.083	ND	0.367		0.876		0.020	ND	0.276	ND	0.014		0.117		0.057	ND	NT	0.267
15	15-1-24A-030204	03/02/04	Indoor	24	Primary	NT	0.020		0.250		1.757		0.020	ND	0.277	ND	0.019		0.223		0.057	ND	NT	0.262
15	15-2-24A-030404	03/04/04	Indoor	24	Primary	NT	0.027		0.579		1.656		0.021	ND	0.278	ND	0.027		0.281		0.057	ND	NT	0.297
15	15-1-81A-030404	03/04/04	Indoor	8	Primary	NT	0.022		0.439		1.656		0.020	ND	0.278	ND	0.019		0.232		0.057	ND	NT	0.280
15	15-2-24A-030804	03/08/04	Indoor	24	Primary	NT	0.054		0.981		2.384		0.017		0.279	ND	0.057		0.573		0.026		NT	0.259
15	15-1-24A-031104	03/11/04	Indoor	24	Primary	NT	0.017		0.356		1.603		0.021	ND	0.279	ND	0.015		0.188		0.010		NT	0.320
15	15-2-81A-031104	03/11/04	Indoor	8	Primary	NT	0.083	ND	0.426		0.940		0.021	ND	0.279	ND	0.020		0.184		0.024		NT	0.489
15	15-2-24A-031704	03/17/04	Indoor	24	Primary	NT	0.016		0.681		1.046		0.020	ND	0.277	ND	0.014		0.171		0.011		NT	0.336
15	15-2-24B-031704	03/17/04	Indoor	24	Duplicate	NT	0.083	ND	0.667		1.046		0.020	ND	0.277	ND	0.015		0.150		0.012		NT	0.336
15	15-1-81A-031704	03/17/04	Indoor	8	Primary	NT	0.017		0.375		0.936		0.020	ND	0.277	ND	0.013		0.158		0.017		NT	0.392
15	15-1-24A-031904	03/19/04	Indoor	24	Primary	NT	0.083	ND	0.328		1.049		0.021	ND	0.278	ND	0.013		0.135		0.057	ND	NT	0.292
15	15-2-24A-031904	03/19/04	Indoor	24	Primary	NT	0.015		0.425		1.049		0.021	ND	0.278	ND	0.015		0.135		0.057	ND	NT	0.320
15	15-1-24A-032204	03/22/04	Indoor	24	Primary	NT	0.014		0.237		1.215		0.021	ND	0.278	ND	0.012		0.139		0.057	ND	NT	0.253
15	15-2-24A-032204	03/22/04	Indoor	24	Primary	NT	0.083	ND	0.377		0.884		0.021	ND	0.278	ND	0.012		0.110		0.057	ND	NT	0.337
15	15-1-24A-032404	03/24/04	Indoor	24	Primary	NT	0.015		0.238		1.107		0.021	ND	0.279	ND	0.041	ND	0.110		0.057	ND	NT	0.270
15	15-1-24B-032404	03/24/04	Indoor	24	Duplicate	NT	0.015		0.210		1.052		0.021	ND	0.279	ND	0.041	ND	0.110		0.057	ND	NT	0.264
15	15-2-24A-032404	03/24/04	Indoor	24	Primary	NT	0.015		0.378		0.830		0.021	ND	0.279	ND	0.012		0.119		0.057	ND	NT	0.360

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
15	15-1-24A-033004	03/30/04	Indoor	24	Primary	NT	0.022		0.300		1.765		0.020	ND	0.278	ND	0.020		0.175		0.057	ND	NT	0.280	
15	15-2-24A-033004	03/30/04	Indoor	24	Primary	NT	0.024		0.488		1.379		0.020	ND	0.278	ND	0.022		0.183		0.057	ND	NT	0.426	
15	15-2-24C-033004	03/30/04	Indoor	24	Split	NT	0.129	ND	0.432		1.379		0.042	ND	0.191	ND	0.077		0.191		0.652	ND	NT	0.465	
15	15-1-24A-040104	04/01/04	Indoor	24	Primary	NT	0.083	ND	0.271		1.706		0.020	ND	0.277	ND	0.016		0.167		0.057	ND	NT	0.296	
15	15-2-81A-040104	04/01/04	Indoor	8	Primary	NT	0.083	ND	0.348		1.046		0.020	ND	0.277	ND	0.013		0.187		0.057	ND	NT	0.302	
15	15-2-24A-040604	04/06/04	Indoor	24	Primary	NT	0.083	ND	0.293		1.272		0.021	ND	0.279	ND	0.021		0.163		0.057	ND	NT	0.393	
15	15-2-24B-040604	04/06/04	Indoor	24	Duplicate	NT	0.022		0.293		1.272		0.021	ND	0.279	ND	0.020		0.241		0.057	ND	NT	0.399	
15	15-1-82A-040604	04/06/04	Indoor	8	Primary	NT	0.022		0.161		1.825		0.021	ND	0.279	ND	0.019		0.253		0.057	ND	NT	0.298	
15	15-1-83A-040604	04/06/04	Indoor	8	Primary	NT	0.022		0.231		1.549		0.021	ND	0.279	ND	0.018		0.233		0.057	ND	NT	0.275	
15	15-1-24A-040804	04/08/04	Indoor	24	Primary	NT	0.019		0.257		1.708		0.020	ND	0.278	ND	0.016		0.195		0.057	ND	NT	0.353	
15	15-2-24A-040804	04/08/04	Indoor	24	Primary	NT	0.018		0.327		1.102		0.020	ND	0.278	ND	0.017		0.171		0.057	ND	NT	0.425	
15	15-1-24A-041304	04/13/04	Indoor	24	Primary	NT	0.013		0.182		1.107		0.021	ND	0.279	ND	0.041	ND	0.180		0.057	ND	NT	0.208	
15	15-2-81A-041304	04/13/04	Indoor	8	Primary	NT	0.015		0.252		0.720		0.021	ND	0.279	ND	0.041	ND	0.143		0.057	ND	NT	0.264	
15	15-2-82A-041304	04/13/04	Indoor	8	Primary	NT	0.016		0.175		0.830		0.021	ND	0.279	ND	0.041	ND	0.176		0.057	ND	NT	0.225	
15	15-2-83A-041304	04/13/04	Indoor	8	Primary	NT	0.024		0.252		1.217		0.007		0.279	ND	0.021		0.310		0.013		NT	0.264	
15	15-1-24A-041604	04/16/04	Indoor	24	Primary	NT	0.083	ND	0.223		1.048		0.020	ND	0.278	ND	0.012		0.183		0.057	ND	NT	0.202	
15	15-2-24A-041604	04/16/04	Indoor	24	Primary	NT	0.020		0.265		0.993		0.020	ND	0.278	ND	0.017		0.232		0.057	ND	NT	0.280	
15	15-2-24A-041904	04/19/04	Indoor	24	Primary	NT	0.063		0.329		0.776		0.021	ND	0.279	ND	0.041	ND	0.201		0.029		NT	0.293	
15	15-1-24A-042204	04/22/04	Indoor	24	Primary	NT	0.032		0.349		0.939		0.021	ND	0.278	ND	0.041	ND	0.147		0.015		NT	0.219	
15	15-2-24A-042204	04/22/04	Indoor	24	Primary	NT	0.042		0.419		0.829		0.021	ND	0.278	ND	0.041	ND	0.184		0.020		NT	0.331	
15	15-2-24A-042804	04/28/04	Indoor	24	Primary	NT	0.083		0.463		0.767		0.020	ND	0.276	ND	0.040	ND	0.178		0.057	ND	NT	0.328	
15	15-1-82A-042804	04/28/04	Indoor	8	Primary	NT	0.037		0.228		0.929		0.020	ND	0.275	ND	0.040	ND	0.141		0.056	ND	NT	0.244	
15	15-1-83A-042804	04/28/04	Indoor	8	Primary	NT	0.083	ND	0.305		0.933		0.020	ND	0.276	ND	0.041	ND	0.174		0.057	ND	NT	0.273	
15	15-2-81B-043004	04/30/04	Indoor	8	Duplicate	NT	0.031		0.307		0.664		0.021	ND	0.279	ND	0.041	ND	0.118		0.057	ND	NT	0.495	
15	15-2-82A-043004	04/30/04	Indoor	8	Primary	NT	0.030		0.363		1.326		0.021	ND	0.278	ND	0.041	ND	0.257		0.057	ND	NT	0.432	
15	15-1-24C-050304	05/03/04	Indoor	24	Split	NT	0.145	ND	0.244	ND	0.771		0.047	ND	0.216	ND	0.073	ND	0.142	ND	0.732	ND	NT	0.263	
15	15-2-24A-050304	05/03/04	Indoor	24	Primary	NT	0.040		0.418		0.716		0.020	ND	0.278	ND	0.041	ND	0.142		0.057	ND	NT	0.325	
15	15-2-24A-050504	05/05/04	Indoor	24	Primary	NT	0.046		0.348		0.881		0.020	ND	0.277	ND	0.041	ND	0.175		0.015		NT	0.319	
15	15-1-81A-050504	05/05/04	Indoor	8	Primary	NT	0.083	ND	0.320		0.881		0.020	ND	0.277	ND	0.041	ND	0.089		0.057	ND	NT	0.257	
15	15-1-82A-050504	05/05/04	Indoor	8	Primary	NT	0.032		0.181		1.650		0.020	ND	0.277	ND	0.041	ND	0.203		0.017		NT	0.235	
15	15-1-24A-051104	05/11/04	Indoor	24	Primary	NT	0.083		0.111		0.716		0.031	ND	0.432	ND	0.065	ND	0.081		0.090	ND	NT	0.280	
15	15-2-82A-051104	05/11/04	Indoor	8	Primary	NT	0.033		0.083		0.485		0.020	ND	0.277	ND	0.041	ND	0.053		0.057	ND	NT	0.168	
15	15-2-82B-051104	05/11/04	Indoor	8	Duplicate	NT	0.026		0.181		0.369		0.020	ND	0.277	ND	0.041	ND	0.049		0.057	ND	NT	0.190	
					Number of Samples	0	298		298		298		298		298		298		298		298		0	298	
					Number of Detects	0	149		294		297		28		4		181		292		68		0	297	
	Indoor - before mitigation				Minimum Detection	0	0.013215118		0.05007124		0.23121784		0.00658188		0.03882722		0.01129916		0.029705402		0.010203596		0	0.111881629	
					Maximum Detection	0	0.11310173		13.1175983		7.22471631		0.57678684		0.73665514		0.57088819		1.309163604		0.056794836		0	5.611880248	
					Number of Samples	0	146		146		146		146		146		146		146		146		0	146	
					Number of Detects	0	17		143		144		3		1		13		137		10		0	142	
	Outdoor				Minimum Detection	0	0.013681495		0.02892479		0.02792518		0.03981425		0.24387756		0.0122468		0.010597489		0.010252176		0	0.101691562	
					Maximum Detection	0	0.192053504		4.29922954		6.40626504		0.2086449		0.24387756		0.09065501		0.311415396		0.033162385		0	0.855852729	
15	15-1-24A-051304	05/13/04	Indoor	24	Primary	NT	0.058		0.139		0.419		0.020	ND	0.278	ND	0.041	ND	0.045		0.057	ND	NT	0.185	
15	15-1-24B-051304	05/13/04	Indoor	24	Duplicate	NT	0.054		0.139		0.403		0.020	ND	0.278	ND	0.041	ND	0.065		0.057	ND	NT	0.179	
15	15-2-24A-051304	05/13/04	Indoor	24	Primary	NT	0.054		0.244		0.326		0.020	ND	0.278	ND	0.041	ND	0.057		0.057	ND	NT	0.196	
15	15-2-24A-051704	05/17/04	Indoor	24	Primary	NT	0.062		0.293		0.281		0.020	ND	0.278	ND	0.041	ND	0.073		0.057	ND	NT	0.258	
15	15-1-24A-051904	05/19/04	Indoor	24	Primary	NT	0.075		0.132		0.177		0.020	ND	0.278	ND	0.041	ND	0.029		0.057	ND	NT	0.168	
15	15-2-81A-051904	05/19/04	Indoor	8	Primary	NT	0.050		0.272		0.160		0.020	ND	0.278	ND	0.041	ND	0.029		0.057	ND	NT	0.236	
15	15-2-82A-051904	05/19/04	Indoor	8	Primary	NT	0.027		0.146		0.171		0.020	ND	0.050		0.041	ND	0.032		0.057	ND	NT	0.241	
15	15-2-83A-051904	05/19/04	Indoor	8	Primary	NT	0.083	ND	0.161		0.171		0.021	ND	0.042		0.041	ND	0.045		0.057	ND	NT	0.140	
15	15-2-24A-060204	06/02/04	Indoor	24	Primary	NT	0.083	ND	0.637		0.181		0.020	ND	0.276	ND	0.040	ND	0.081		0.057	ND	NT	0.150	
15	15-1-24C-060404	06/04/04	Indoor	24	Primary	NT	0.146	ND	0.349		0.270		0.047	ND	0.216	ND	0.073	ND	0.143	ND	0.733	ND	NT	0.196	ND
15	15-2-24A-060804	06/08/04	Indoor	24	Primary	NT	0.036		0.423		0.274		0.020	ND	0.276	ND	0.041	ND	0.073		0.057	ND	NT	0.184	
15	15-2-24A-061004	06/10/04	Indoor	24	Primary	NT	0.058		0.698		0.287		0.021	ND	0.278	ND	0.041	ND	0.126		0.057	ND	NT	0.196	
15	15-1-24A-061504	06/15/04	Indoor	24	Primary	NT	0.049		0.490		0.317		0.020	ND	0.275	ND	0.040	ND	0.081		0.025		NT	0.217	
15	15-1-24A-061704	06/17/04	Indoor	24	Primary	NT	0.046		0.264		0.181		0.020	ND	0.277	ND	0.041	ND	0.406		0.026		NT	0.201	
15	15-1-24A-062104	06/21/04	Indoor	24	Primary	NT	0.083	ND	0.195		0.264		0.020	ND	0.277	ND	0.041	ND	0.077		0.057	ND	NT	0.185	
15	15-1-24A-062304	06/23/04	Indoor	24	Primary	NT	0.038		0.209		0.259		0.020	ND	0.278	ND	0.041	ND	0.081		0.057	ND	NT	0.202	
15	15-2-24A-062304	06/23/04	Indoor	24	Primary	NT	0.040		0.439		0.276		0.020	ND	0.278	ND	0.041	ND	0.086		0.057	ND	NT	0.207	
15	15-2-24B-062304	06/23/04	Indoor	24	Duplicate	NT	0.050		0.432		0.254		0.020	ND	0.278	ND	0.041	ND	0.090		0.057	ND	NT	0.207	
15	15-2-24A-090704	09/07/04	Indoor	24	Primary	NT	NT		0.834		0.314		0.039	ND	NT		NT		0.122	ND	NT		NT	NT	
15	15-3-24A-090704	09/07/04	Indoor	24	Primary	NT	NT		0.591		0.308		0.047	ND	NT		NT		0.142	ND	NT		NT	NT	
15	15-2-24A-090904	09/09/04	Indoor	24	Primary	NT	NT		0.410		0.215		0.047	ND	NT		NT		0.142	ND	NT		NT	NT	
15	15-3-24A-090904	09/09/04	Indoor	24	Primary	NT	NT		0.320		0.220		0.047	ND	NT		NT		0.142	ND	NT		NT	NT	
15	15-2-24A-091404	09/14/04	Indoor	24	Primary	NT	NT		0.411		0.480		0.042	ND	NT		NT		0.310		NT		NT	NT	
15	15-2-24A-091604	09/16/04	Indoor	24	Primary	NT	NT		0.292		0.204		0.047	ND	NT		NT		0.142	ND	NT		NT	NT	
15	15-3-24A-091604	09/16/04	Indoor	24	Primary	NT	NT		0.229	ND	0.490		0.042	ND	NT		NT		0.134	ND	NT		NT	NT	
15	15-2-24A-092104	09/21/04	Indoor	24	Primary	NT	NT		0.660		0.389		0.042	ND	NT		NT		0.131	ND	NT		NT	NT	
15	15-2-24B-092104	09/21/04	Indoor	24	Duplicate	NT	NT		0.653		0.411		0.045	ND	NT		NT		0.139	ND	NT		NT	NT	
15	15-3-24A-092104	09/21/04	Indoor	24	Primary	NT	NT		0.631		0.555		0.042	ND	NT		NT		0.135	ND	NT		NT	NT	
15	15-2-24A-092304	09/23/04	Indoor	24	Primary	NT	NT		0.685		0.437		0.053	ND	NT		NT		0.204		NT		NT	NT	
15	15-2-24A-092804	09/28/04	Indoor	24	Primary	NT	NT		0.391		0.238		0.526		NT		NT		0.286		NT		NT	NT	
15	15-3-24A-092804	09/28/04	Indoor	24	Primary	NT	NT		0.489		0.403		1.263		NT		NT		0.253		NT		NT	NT	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
15	15-2-24A-093004	09/30/04	Indoor	24	Primary	NT	NT		0.369	0.325	0.262		NT		NT		0.977		NT		NT	NT	
15	15-3-24A-093004	09/30/04	Indoor	24	Primary	NT	NT		0.230	0.430	1.154		NT		NT		0.814		NT		NT	NT	
15	15-3-24B-093004	09/30/04	Indoor	24	Duplicate	NT	NT		0.237	0.468	1.574		NT		NT		0.895		NT		NT	NT	
15	15-2-24A-100504	10/05/04	Indoor	24	Primary	NT	NT		0.602	0.260	0.050	ND	NT		NT		0.155	ND	NT		NT	NT	
15	15-3-24A-100504	10/05/04	Indoor	24	Primary	NT	NT		0.504	0.515	0.171		NT		NT		0.614		NT		NT	NT	
15	15-2-24A-100704	10/07/04	Indoor	24	Primary	NT	NT		0.357	0.277	0.045	ND	NT		NT		0.139	ND	NT		NT	NT	
15	15-3-24A-100704	10/07/04	Indoor	24	Primary	NT	NT		0.308	0.554	0.156		NT		NT		0.151	ND	NT		NT	NT	
15	15-3-24B-100704	10/07/04	Indoor	24	Duplicate	NT	NT		0.308	0.538	0.227		NT		NT		0.139	ND	NT		NT	NT	
15	15-2-24A-101204	10/12/04	Indoor	24	Primary	NT	NT		0.600	0.354	0.047	ND	NT		NT		0.612		NT		NT	NT	
15	15-3-24A-101204	10/12/04	Indoor	24	Primary	NT	NT		0.628	0.552	0.047	ND	NT		NT		0.612		NT		NT	NT	
15	15-3-24A-101404	10/14/04	Indoor	24	Primary	NT	NT		0.837	0.607	0.137		NT		NT		0.151		NT		NT	NT	
15	15-2-24A-101904	10/19/04	Indoor	24	Primary	NT	NT		0.309	0.240	0.109		NT		NT		0.346		NT		NT	NT	
15	15-2-24B-101904	10/19/04	Indoor	24	Duplicate	NT	NT		0.323	0.245	0.143		NT		NT		0.378		NT		NT	NT	
15	15-2-24A-102104	10/21/04	Indoor	24	Primary	NT	NT		0.418	0.254	0.047	ND	NT		NT		0.489		NT		NT	NT	
15	15-3-24A-102104	10/21/04	Indoor	24	Primary	NT	NT		0.397	0.607	0.215		NT		NT		0.391		NT		NT	NT	
15	15-2-24A-102604	10/26/04	Indoor	24	Primary	NT	NT		0.829	0.547	0.047	ND	NT		NT		0.226		NT		NT	NT	
15	15-3-24A-102604	10/26/04	Indoor	24	Primary	NT	NT		0.276	0.366	0.044	ND	NT		NT		0.137	ND	NT		NT	NT	
15	15-2-24A-102804	10/28/04	Indoor	24	Primary	NT	NT		0.280	0.222	0.048	ND	NT		NT		0.533		NT		NT	NT	
15	15-3-24A-102804	10/28/04	Indoor	24	Primary	NT	NT		0.343	0.416	0.045	ND	NT		NT		0.574		NT		NT	NT	
Indoor after refurbishing HVAC system to increase makeup air					Number of Samples	0	18		50	50	50		18		18		50		18		0	18	
					Number of Detects	0	14		0	12	2		0		0		35		2		0	17	
					Minimum Detection	0	0.026608241		0.13249061	0.16005912	0.10884697		0.04207858		0		0.028934245		0.024618071		0	0.140389181	
					Maximum Detection	0	0.074894207		0.83668716	0.60714262	1.57405126		0.05002745		0		0.976566587		0.02595481		0	0.257942501	
Outdoor					Number of Samples	0	13		29	29	29		13		13		29		13		0	13	
					Number of Detects	0	9		23	23	7		2		0		13		0		0	12	
					Minimum Detection	0	0.030553351		0.0650644	0.03960095	0.08595377		0.0814258		0		0.011283747		0		0	0.130733835	
					Maximum Detection	0	0.157252472		2.35214649	3.72144541	1.06908338		0.36619376		0		0.221547435		0		0	0.206265671	
16	16-1-24A-120903	12/09/03	Indoor	24	Primary	NT	0.238		0.405	14.937	0.021	ND	0.279	ND	0.176		1.144		0.053		NT	0.281	
16	16-1-24A-121603	12/16/03	Indoor	24	Primary	NT	0.076		0.389	4.252	0.021	ND	0.282	ND	0.050		0.620		0.018		NT	0.222	
16	16-2-24A-121603	12/16/03	Indoor	24	Primary	NT	0.084	ND	0.431	15.107	0.021	ND	0.282	ND	0.066		0.620		0.024		NT	0.296	
16	16-2-24C-121603	12/16/03	Indoor	24	Split	NT	0.135	ND	0.523	15.107	0.072		0.200	ND	0.078		0.537		0.661	ND	NT	0.233	
16	16-1-24A-122203	12/22/03	Indoor	24	Primary	NT	0.071		0.701	9.983	0.021	ND	0.279	ND	0.082		0.696		0.028		NT	0.237	
16	16-2-24A-122203	12/22/03	Indoor	24	Primary	NT	0.075		0.645	13.311	0.021	ND	0.279	ND	0.074		0.491		0.027		NT	0.344	
16	16-2-24B-122203	12/22/03	Indoor	24	Duplicate	NT	0.079		0.645	13.865	0.021	ND	0.279	ND	0.070		0.532		0.027		NT	0.349	
16	16-1-24A-010704	01/07/04	Indoor	24	Primary	NT	0.096		0.343	7.199	0.021	ND	0.279	ND	0.061		0.409		0.017		NT	0.293	
16	16-2-24A-010704	01/07/04	Indoor	24	Primary	NT	0.031		0.280	9.415	0.021	ND	0.279	ND	0.019		0.151		0.057	ND	NT	0.405	
16	16-1-24A-011304	01/13/04	Indoor	24	Primary	NT	0.076		0.592	4.853	0.021	ND	0.281	ND	0.054		0.383		0.016		NT	0.227	
16	16-2-24A-011304	01/13/04	Indoor	24	Primary	NT	0.126		0.775	12.829	0.021	ND	0.281	ND	0.111		0.618		0.030		NT	0.306	
16	16-1-24A-012004	01/20/04	Indoor	24	Primary	NT	0.079		0.428	6.106	0.021	ND	0.280	ND	0.041		0.410		0.013		NT	0.209	
16	16-2-24A-012004	01/20/04	Indoor	24	Primary	NT	0.079		0.484	9.991	0.021	ND	0.280	ND	0.049		0.250		0.016		NT	0.276	
16	16-1-24A-012604	01/26/04	Indoor	24	Primary	NT	0.097		0.275	5.573	0.021	ND	0.281	ND	0.053		0.370		0.018		NT	0.227	
16	16-2-24A-012604	01/26/04	Indoor	24	Primary	NT	0.055		0.296	8.917	0.021	ND	0.281	ND	0.034		0.276		0.016		NT	0.391	
16	16-1-24A-020304	02/03/04	Indoor	24	Primary	NT	0.062		0.670	4.805	0.021	ND	0.278	ND	0.027		0.290		0.010		NT	0.185	
16	16-1-24A-021004	02/10/04	Indoor	24	Primary	NT	0.024		0.408	2.174	0.021	ND	0.281	ND	0.014		0.177		0.058	ND	NT	0.153	
16	16-2-24A-021004	02/10/04	Indoor	24	Primary	NT	0.071		0.563	11.704	0.021	ND	0.281	ND	0.045		0.317		0.019		NT	0.283	
16	16-1-24A-021804	02/18/04	Indoor	24	Primary	NT	0.028		0.168	2.277	0.021	ND	0.280	ND	0.041	ND	0.127		0.057	ND	NT	0.192	
16	16-2-24A-021804	02/18/04	Indoor	24	Primary	NT	0.046		0.344	7.220	0.021	ND	0.280	ND	0.025		0.193		0.011		NT	0.322	
16	16-1-24A-022304	02/23/04	Indoor	24	Primary	NT	0.046		0.174	3.308	0.020	ND	0.278	ND	0.025		0.163		0.057	ND	NT	0.218	
16	16-2-24A-022304	02/23/04	Indoor	24	Primary	NT	0.038		0.230	7.718	0.020	ND	0.278	ND	0.024		0.208		0.013		NT	0.448	
16	16-1-24A-030204	03/02/04	Indoor	24	Primary	NT	0.038		0.160	2.251	0.020	ND	0.277	ND	0.041	ND	0.207		0.057	ND	NT	0.190	
16	16-1-24B-030204	03/02/04	Indoor	24	Duplicate	NT	0.034		0.153	2.032	0.020	ND	0.277	ND	0.018		0.195		0.057	ND	NT	0.190	
16	16-2-24A-030204	03/02/04	Indoor	24	Primary	NT	0.070		1.179	11.531	0.020	ND	0.277	ND	0.045		0.353		0.016		NT	0.368	
16	16-1-24A-030804	03/08/04	Indoor	24	Primary	NT	0.050		0.602	2.717	0.021	ND	0.279	ND	0.028		0.328		0.027		NT	0.265	
16	16-2-24A-030804	03/08/04	Indoor	24	Primary	NT	0.059		0.911	11.644	0.021	ND	0.279	ND	0.034		0.278		0.022		NT	0.547	
16	16-2-24B-030804	03/08/04	Indoor	24	Duplicate	NT	0.054		0.911	10.535	0.011		0.279	ND	0.034		0.274		0.020		NT	0.524	
16	16-1-24A-031704	03/17/04	Indoor	24	Primary	NT	0.020		0.424	1.156	0.020	ND	0.277	ND	0.012		0.167		0.013		NT	0.308	
16	16-2-24A-031704	03/17/04	Indoor	24	Primary	NT	0.062		0.494	14.308	0.020	ND	0.277	ND	0.033		0.345		0.022		NT	0.347	
16	16-1-24A-032204	03/22/04	Indoor	24	Primary	NT	0.023		0.140	1.442	0.021	ND	0.279	ND	0.011		0.143		0.057	ND	NT	0.186	
16	16-1-24B-032204	03/22/04	Indoor	24	Duplicate	NT	0.024		0.126	1.442	0.021	ND	0.279	ND	0.012		0.094		0.057	ND	NT	0.192	
16	16-2-24A-032204	03/22/04	Indoor	24	Primary	NT	0.054		0.196	13.309	0.021	ND	0.279	ND	0.034		0.233		0.018		NT	0.338	
16	16-1-24A-033004	03/30/04	Indoor	24	Primary	NT	0.037		1.115	2.151	0.020	ND	0.278	ND	0.018		0.143		0.057	ND	NT	0.202	
16	16-2-24A-033004	03/30/04	Indoor	24	Primary	NT	0.034		0.976	6.620	0.020	ND	0.278	ND	0.021		0.122		0.057	ND	NT	0.392	
16	16-1-24A-040604	04/06/04	Indoor	24	Primary	NT	0.046		0.134	2.229	0.021	ND	0.281	ND	0.027		0.226		0.013		NT	0.221	
16	16-2-24A-040604	04/06/04	Indoor	24	Primary	NT	0.042		0.169	8.359	0.021	ND	0.281	ND	0.026		0.218		0.013		NT	0.340	
16	16-1-24A-041304	04/13/04	Indoor	24	Primary	NT	0.083	ND	0.126	0.609	0.021	ND	0.279	ND	0.041	ND	0.102		0.057	ND	NT	0.152	
16	16-1-24C-041304	04/13/04	Indoor	24	Split	NT	0.142	ND	0.371	0.609	0.045	ND	0.211	ND	0.069	ND	0.139	ND	0.695	ND	NT	0.191	ND
16	16-2-24A-041304	04/13/04	Indoor	24	Primary	NT	0.028		0.161	6.088	0.021	ND	0.279	ND	0.041	ND	0.147		0.057	ND	NT	0.236	
16	16-2-24B-041304	04/13/04	Indoor	24	Duplicate	NT	0.083	ND	0.154	6.641	0.021	ND	0.279	ND	0.018		0.155		0.057	ND	NT	0.236	
16	16-1-24A-041904	04/19/04	Indoor	24	Primary	NT	0.217		0.140	2.273	0.021	ND	0.279	ND	0.041	ND	0.295		0.057	ND	NT	0.192	
16	16-2-24A-041904	04/19/04	Indoor	24	Primary	NT	0.192		0.168	3.549	0.021	ND	0.279	ND	0.041	ND	0.131		0.057	ND	NT	0.361	
16	16-1-24A-042804	04/28/04	Indoor	24	Primary	NT	0.219		0.263	0.657	0.020	ND	0.276	ND	0.040	ND	0.166		0.057	ND	NT	0.200	
16	16-2-24A-042804	04/28/04	Indoor	24	Primary	NT	0.206		0.311	6.024	0.020	ND	0.276	ND	0.040	ND	0.202		0.057	ND	NT	0.334	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
16	16-1-24A-050304	05/03/04	Indoor	24	Primary	NT	0.149		0.125		0.215		0.020	ND	0.278	ND	0.041	ND	0.057		0.057	ND	NT	0.179	
16	16-2-24A-050304	05/03/04	Indoor	24	Primary	NT	0.158		0.146		7.713		0.020	ND	0.278	ND	0.041	ND	0.195		0.057	ND	NT	0.241	
16	16-1-24A-051104	05/11/04	Indoor	24	Primary	NT	0.191		0.139		1.764		0.020	ND	0.278	ND	0.041	ND	0.199		0.057	ND	NT	0.185	
16	16-2-24A-051104	05/11/04	Indoor	24	Primary	NT	0.120		0.125		1.102		0.020	ND	0.278	ND	0.041	ND	0.073		0.057	ND	NT	0.235	
16	16-1-24A-051704	05/17/04	Indoor	24	Primary	NT	0.104		0.132		0.088		0.020	ND	0.278	ND	0.041	ND	0.045		0.057	ND	NT	0.163	
16	16-1-24B-051704	05/17/04	Indoor	24	Duplicate	NT	0.071		0.125		0.083		0.020	ND	0.278	ND	0.041	ND	0.053		0.057	ND	NT	0.157	
16	16-2-24A-051704	05/17/04	Indoor	24	Primary	NT	0.129		0.119		0.105		0.020	ND	0.278	ND	0.041	ND	0.045		0.057	ND	NT	0.185	
16	16-2-24A-060404	06/04/04	Indoor	24	Primary	NT	0.054		0.237		0.132		0.020	ND	0.278	ND	0.041	ND	0.073		0.057	ND	NT	0.191	
16	16-2-24A-060804	06/08/04	Indoor	24	Primary	NT	0.132		0.090		0.099		0.020	ND	0.276	ND	0.041	ND	0.292		0.015		NT	0.190	
16	16-2-24B-060804	06/08/04	Indoor	24	Duplicate	NT	0.141		0.083		0.082		0.020	ND	0.276	ND	0.041	ND	0.263		0.057	ND	NT	0.184	
16	16-1-24A-061504	06/15/04	Indoor	24	Primary	NT	0.161		0.249		0.437		0.020	ND	0.275	ND	0.040	ND	0.339		0.057	ND	NT	0.211	
16	16-1-24A-062104	06/21/04	Indoor	24	Primary	NT	0.145		0.132		0.220		0.020	ND	0.277	ND	0.041	ND	0.122		0.057	ND	NT	0.157	
	Indoor				Number of Samples	0	57		57		57		57		57		57		57		57		0	57	
					Number of Detects	0	52		57		57		2		0		36		56		27		0	56	
					Minimum Detection	0	0.020324542		0.08317264		0.0823013		0.01135022		0		0.01146504		0.044820056		0.010194432		0	0.151841664	
					Maximum Detection	0	0.237683309		1.17913664		15.1072786		0.0719175		0		0.17564493		1.143734418		0.053101955		0	0.546532232	
	Outdoor				Number of Samples	0	26		26		26		26		26		26		26		26		0	26	
					Number of Detects	0	10		26		26		0		0		0		22		2		0	26	
					Minimum Detection	0	0.030553351		0.07832678		0.02792518		0		0		0		0.01214756		0.010252176		0	0.132150205	
					Maximum Detection	0	0.123213926		0.5191827		0.50142279		0		0		0		0.05585357		0.01107235		0	0.282183364	
17	17-1-81A-063003	06/30/03	Indoor	8	Primary	NT	0.015		0.139		0.495		0.020	ND	0.277	ND	0.041	ND	0.126		0.057	ND	NT	0.201	
17	17-1-82A-063003	06/30/03	Indoor	8	Primary	NT	0.083	ND	0.039		0.258		0.020	ND	0.276	ND	0.040	ND	0.125		0.057	ND	NT	0.173	
17	17-1-83A-063003	06/30/03	Indoor	8	Primary	NT	0.058		0.340		1.483		0.020	ND	0.277	ND	0.041		0.689		0.017		NT	0.301	
17	17-1-24A-070203	07/02/03	Indoor	24	Primary	NT	0.014		0.160		0.357		0.020	ND	0.277	ND	0.041	ND	0.110		0.057	ND	NT	0.190	
17	17-1-24C-070203	07/02/03	Indoor	24	Split	NT	0.137	ND	0.229	ND	0.495		0.042	ND	0.985		0.065	ND	0.138		0.649	ND	NT	0.184	ND
17	17-1-24A-070703	07/07/03	Indoor	24	Primary	NT	0.083	ND	0.091		0.132		0.020	ND	0.278	ND	0.041	ND	0.069		0.057	ND	NT	0.207	
17	17-1-24A-070803	07/08/03	Indoor	24	Primary	NT	0.021		0.112		0.431		0.021	ND	0.279	ND	0.014		0.216		0.057	ND	NT	0.180	
17	17-1-24A-070903	07/09/03	Indoor	24	Primary	NT	0.021		3.344		0.425		0.020	ND	0.278	ND	0.041	ND	0.195		0.057	ND	NT	0.185	
17	17-1-24C-070903	07/09/03	Indoor	24	Split	NT	0.154	ND	2.926		0.552		0.047	ND	0.229	ND	0.073	ND	0.155		0.733	ND	NT	0.207	ND
17	17-1-81A-071003	07/10/03	Indoor	8	Primary	NT	0.020		0.286		0.353		0.021	ND	0.278	ND	0.041	ND	0.179		0.057	ND	NT	0.208	
17	17-1-82A-071003	07/10/03	Indoor	8	Primary	NT	0.019		0.314		0.353		0.020	ND	0.278	ND	0.013		0.192		0.057	ND	NT	0.185	
17	17-1-83A-071003	07/10/03	Indoor	8	Primary	NT	0.022		0.293		0.463		0.020	ND	0.278	ND	0.013		0.175		0.057	ND	NT	0.191	
17	17-1-24A-071103	07/11/03	Indoor	24	Primary	NT	0.025		0.167		0.883		0.020	ND	0.278	ND	0.015		0.224		0.057	ND	NT	0.191	
17	17-1-24A-071403	07/14/03	Indoor	24	Primary	NT	0.024		0.132		0.511		0.020	ND	0.277	ND	0.041	ND	0.195		0.057	ND	NT	0.201	
17	17-1-81A-071503	07/15/03	Indoor	8	Primary	NT	0.026		0.104		0.330		0.020	ND	0.277	ND	0.013		0.179		0.057	ND	NT	0.156	
17	17-1-82A-071503	07/15/03	Indoor	8	Primary	NT	0.022		0.083		0.385		0.020	ND	0.277	ND	0.014		0.231		0.057	ND	NT	0.145	
17	17-1-83A-071503	07/15/03	Indoor	8	Primary	NT	0.083	ND	0.065		0.472		0.020	ND	0.277	ND	0.015		0.227		0.057	ND	NT	0.184	
17	17-1-24A-071603	07/16/03	Indoor	24	Primary	NT	0.031		0.180		0.769		0.020	ND	0.277	ND	0.018		0.312		0.057	ND	NT	0.179	
17	17-1-24A-071703	07/17/03	Indoor	24	Primary	NT	0.021		0.194		0.505		0.020	ND	0.277	ND	0.012		0.191		0.057	ND	NT	0.173	
17	17-1-24A-071803	07/18/03	Indoor	24	Primary	NT	0.027		0.209		0.429		0.020	ND	0.277	ND	0.013		0.199		0.015		NT	0.190	
17	17-1-24B-072103	07/21/03	Indoor	24	Primary	NT	0.022		0.111		0.550		0.020	ND	0.277	ND	0.017		0.235		0.057	ND	NT	0.112	
17	17-1-24A-072203	07/22/03	Indoor	24	Primary	NT	0.022		0.215		0.605		0.020	ND	0.277	ND	0.014		0.207		0.057	ND	NT	0.184	
17	17-1-81A-072303	07/23/03	Indoor	8	Primary	NT	0.031		0.145		0.519		0.020	ND	0.275	ND	0.022		0.323		0.056	ND	NT	0.200	
17	17-1-82A-072303	07/23/03	Indoor	8	Primary	NT	0.025		0.096		0.387		0.020	ND	0.275	ND	0.014		0.254		0.056	ND	NT	0.177	
17	17-1-83A-072303	07/23/03	Indoor	8	Primary	NT	0.021		0.104		0.399		0.020	ND	0.275	ND	0.013		0.202		0.056	ND	NT	0.189	
17	17-1-24A-072403	07/24/03	Indoor	24	Primary	NT	0.026		0.131		0.528		0.020	ND	0.274	ND	0.018		0.253		0.056	ND	NT	0.205	
17	17-1-24A-072503	07/25/03	Indoor	24	Primary	NT	0.026		0.104		0.363		0.020	ND	0.277	ND	0.022		0.223		0.057	ND	NT	0.207	
17	17-1-24A-072803	07/28/03	Indoor	24	Primary	NT	0.019		0.104		0.280		0.020	ND	0.277	ND	0.020		0.223		0.057	ND	NT	0.207	
17	17-1-24A-072903	07/29/03	Indoor	24	Primary	NT	0.013		0.097		0.192		0.020	ND	0.277	ND	0.041	ND	0.118		0.057	ND	NT	0.190	
17	17-1-24B-072903	07/29/03	Indoor	24	Duplicate	NT	0.083	ND	0.090		0.198		0.020	ND	0.277	ND	0.041	ND	0.114		0.057	ND	NT	0.195	
17	17-1-24A-073003	07/30/03	Indoor	24	Primary	NT	0.083	ND	3.678		0.165		0.020	ND	0.277	ND	0.013		0.178		0.057	ND	NT	0.106	
17	17-1-81A-073103	07/31/03	Indoor	8	Primary	NT	0.016		0.195		0.231		0.020	ND	0.278	ND	0.041	ND	0.155		0.057	ND	NT	0.146	
17	17-1-82A-073103	07/31/03	Indoor	8	Primary	NT	0.021		0.369		0.237		0.020	ND	0.278	ND	0.015		0.175		0.057	ND	NT	0.151	
17	17-1-83A-073103	07/31/03	Indoor	8	Primary	NT	0.083	ND	0.104		0.220		0.020	ND	0.277	ND	0.041	ND	0.122		0.057	ND	NT	0.151	
17	17-1-24A-080103	08/01/03	Indoor	24	Primary	NT	0.015		0.084		0.193		0.020	ND	0.278	ND	0.018		0.106		0.057	ND	NT	0.129	
17	17-1-24A-080403	08/04/03	Indoor	24	Primary	NT	0.016		0.132		0.373		0.020	ND	0.277	ND	0.041	ND	0.166		0.057	ND	NT	0.123	
17	17-1-24A-080503	08/05/03	Indoor	24	Primary	NT	0.020		0.132		0.335		0.020	ND	0.277	ND	0.014		0.219		0.057	ND	NT	0.123	
17	17-1-81A-080603	08/06/03	Indoor	8	Primary	NT	0.019		0.083		0.402		0.020	ND	0.277	ND	0.014		0.215		0.057	ND	NT	0.168	
17	17-1-82A-080603	08/06/03	Indoor	8	Primary	NT	0.022		0.048		0.606		0.020	ND	0.278	ND	0.041	ND	0.240		0.057	ND	NT	0.168	
17	17-1-83A-080603	08/06/03	Indoor	8	Primary	NT	0.039		0.181		0.880		0.020	ND	0.277	ND	0.024		0.447		0.057	ND	NT	0.196	
17	17-1-24A-080703	08/07/03	Indoor	24	Primary	NT	0.026		0.167		0.604		0.020	ND	0.277	ND	0.019		0.316		0.057	ND	NT	0.184	
17	17-1-24C-080703	08/07/03	Indoor	24	Split	NT	0.149	ND	0.250	ND	0.517		0.047	ND	0.222	ND	0.073	ND	0.219		0.730	ND	NT	0.201	ND
17	17-1-24A-080803	08/08/03	Indoor	24	Primary	NT	0.027		0.146		0.472		0.020	ND	0.277	ND	0.023		0.329		0.057	ND	NT	0.173	
17	17-1-24A-081103	08/11/03	Indoor	24	Primary	NT	0.083	ND	0.119		0.343		0.021	ND	0.278	ND	0.019		0.216		0.057	ND	NT	0.191	
17	17-1-24A-081203	08/12/03	Indoor	24	Primary	NT	0.083	ND	0.146		0.430		0.020	ND	0.278	ND	0.015		0.268		0.057	ND	NT	0.185	
17	17-1-24C-081203	08/12/03	Indoor	24	Split	NT	0.137	ND	1.044		0.391		0.042	ND	0.204	ND	0.065	ND	0.220		0.651	ND	NT	0.185	ND
17	17-1-24A-081303	08/13/03	Indoor	24	Primary	NT	0.019		0.139		0.412		0.020	ND	0.277	ND	0.014		0.215		0.057	ND	NT	0.190	
17	17-1-81A-081403	08/14/03	Indoor	8	Primary	NT	0.083	ND	0.432		0.364		0.020	ND	0.278	ND	0.015		0.167		0.057	ND	NT	0.174	
17	17-1-82A-081403	08/14/03	Indoor	8	Primary	NT	0.083	ND	0.153		0.436		0.020	ND	0.278	ND	0.016		0.236		0.057	ND	NT	0.168	
17	17-1-83A-081403	08/14/03	Indoor	8	Primary	NT	0.083	ND	0.265		0.408		0.020	ND	0.278	ND	0.012		0.155		0.057	ND	NT	0.235	
17	17-1-83B-081403	08/14/03	Indoor	8	Duplicate	NT	0.015		0.307		0.397		0.020	ND	0.278	ND	0.041	ND	0.171		0.057	ND	NT	0.196	
17	17-1-24A-081503	08/15/03	Indoor	24	Primary	NT	0.083	ND	0.160		0.447		0.012		0.278	ND	0.023		0.261		0.057	ND	NT	0.202	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE	trans-1,2-DCE		Freon 113	1,1,1-TCA	
17	17-1-24A-081803	08/18/03	Indoor	24	Primary	NT	0.083	ND	0.097		0.302	0.020	ND	0.277	ND	0.014		0.191	0.057	ND	NT	0.179	
17	17-1-24A-081903	08/19/03	Indoor	24	Primary	NT	0.083	ND	0.153		0.308	0.020	ND	0.277	ND	0.015		0.174	0.057	ND	NT	0.179	
17	17-1-24B-081903	08/19/03	Indoor	24	Duplicate	NT	0.017		0.167		0.341	0.020	ND	0.277	ND	0.013		0.178	0.057	ND	NT	0.179	
17	17-1-24A-082003	08/20/03	Indoor	24	Primary	NT	0.017		0.139		0.280	0.020	ND	0.277	ND	0.011		0.179	0.057	ND	NT	0.201	
17	17-1-81A-082103	08/21/03	Indoor	8	Primary	NT	0.083	ND	0.222		0.121	0.020	ND	0.277	ND	0.041	ND	0.057	0.057	ND	NT	0.173	
17	17-1-82A-082103	08/21/03	Indoor	8	Primary	NT	0.083	ND	0.049		0.165	0.020	ND	0.277	ND	0.041	ND	0.093	0.057	ND	NT	0.168	
17	17-1-83A-082103	08/21/03	Indoor	8	Primary	NT	0.083	ND	0.062		0.198	0.020	ND	0.277	ND	0.041	ND	0.126	0.057	ND	NT	0.157	
17	17-1-24A-082203	08/22/03	Indoor	24	Primary	NT	0.083	ND	0.139	ND	0.248	0.020	ND	0.277	ND	0.041	ND	0.138	0.057	ND	NT	0.151	
17	17-1-24A-082503	08/25/03	Indoor	24	Primary	NT	0.083	ND	0.146		0.214	0.020	ND	0.277	ND	0.012		0.158	0.057	ND	NT	0.112	
17	17-1-24A-082603	08/26/03	Indoor	24	Primary	NT	0.083	ND	0.132		0.302	0.020	ND	0.277	ND	0.041	ND	0.146	0.057	ND	NT	0.156	
17	17-1-24A-082703	08/27/03	Indoor	24	Primary	NT	0.014		0.097		0.281	0.020	ND	0.277	ND	0.041	ND	0.134	0.057	ND	NT	0.151	
17	17-1-24B-082703	08/27/03	Indoor	24	Duplicate	NT	0.014		0.104		0.341	0.020	ND	0.277	ND	0.015		0.146	0.057	ND	NT	0.140	
17	17-1-81A-082803	08/28/03	Indoor	8	Primary	NT	0.083	ND	0.139		53.452	0.020	ND	0.278	ND	0.041	ND	0.069	0.057	ND	NT	0.140	
17	17-1-82A-082803	08/28/03	Indoor	8	Primary	NT	0.018		0.057		0.881	0.020	ND	0.278	ND	0.013		0.191	0.057	ND	NT	0.140	
17	17-1-83A-082803	08/28/03	Indoor	8	Primary	NT	0.024		0.111		0.770	0.013		0.277	ND	0.018		0.297	0.057	ND	NT	2.461	
17	17-1-24A-082903	08/29/03	Indoor	24	Primary	NT	0.014		0.591		0.341	0.020	ND	0.277	ND	0.041	ND	0.142	0.057	ND	NT	0.151	
17	17-1-24B-082903	08/29/03	Indoor	24	Duplicate	NT	0.032		0.299		0.605	0.020	ND	0.277	ND	0.032		0.362	0.057	ND	NT	0.140	
17	17-1-24A-090203	09/02/03	Indoor	24	Primary	NT	0.016		0.256		0.351	0.020	ND	0.277	ND	0.015		0.207	0.057	ND	NT	0.151	
17	17-1-24A-090303	09/03/03	Indoor	24	Primary	NT	0.024		0.070		0.374	0.020	ND	0.277	ND	0.017		0.224	0.057	ND	NT	0.140	
17	17-1-81A-090403	09/04/03	Indoor	8	Primary	NT	0.083	ND	0.355		0.171	0.020	ND	0.099		0.041	ND	0.081	0.057	ND	NT	0.134	
17	17-1-82A-090403	09/04/03	Indoor	8	Primary	NT	0.083	ND	0.046		0.077	0.020	ND	0.277	ND	0.041	ND	0.032	0.057	ND	NT	0.134	
17	17-1-83A-090403	09/04/03	Indoor	8	Primary	NT	0.083	ND	0.341		0.347	0.011		0.277	ND	0.041	ND	0.207	0.057	ND	NT	0.173	
17	17-1-24A-090503	09/05/03	Indoor	24	Primary	NT	0.083	ND	0.105		0.315	0.020	ND	0.278	ND	0.041	ND	0.151	0.057	ND	NT	0.151	
17	17-1-81A-090903	09/09/03	Indoor	8	Primary	NT	0.083	ND	0.194		0.148	0.020	ND	0.277	ND	0.041	ND	0.122	0.057	ND	NT	0.084	
17	17-1-82A-090903	09/09/03	Indoor	8	Primary	NT	0.083	ND	0.125		0.170	0.020	ND	0.277	ND	0.013		0.061	0.057	ND	NT	0.167	
17	17-1-83A-090903	09/09/03	Indoor	8	Primary	NT	0.083	ND	0.052		0.187	0.012		0.277	ND	0.041	ND	0.097	0.057	ND	NT	0.145	
17	17-1-24A-091003	09/10/03	Indoor	24	Primary	NT	0.020		0.265		0.369	0.020	ND	0.278	ND	0.014		0.236	0.057	ND	NT	0.162	
17	17-1-24A-091103	09/11/03	Indoor	24	Primary	NT	0.083	ND	0.286		0.298	0.020	ND	0.278	ND	0.041	ND	0.147	0.015		NT	0.179	
17	17-1-24B-091103	09/11/03	Indoor	24	Duplicate	NT	0.083	ND	0.300		0.326	0.020	ND	0.278	ND	0.041	ND	0.147	0.015		NT	0.179	
17	17-1-24A-091503	09/15/03	Indoor	24	Primary	NT	0.083	ND	0.125		2.035	0.020	ND	0.277	ND	0.041	ND	0.069	0.057	ND	NT	0.156	
17	17-1-24A-091603	09/16/03	Indoor	24	Primary	NT	0.083	ND	0.160		2.254	0.020	ND	0.277	ND	0.041	ND	0.089	0.057	ND	NT	0.162	
17	17-1-24A-091703	09/17/03	Indoor	24	Primary	NT	0.083	ND	0.271		1.922	0.020	ND	0.277	ND	0.041	ND	0.118	0.057	ND	NT	0.184	
17	17-1-24B-091703	09/17/03	Indoor	24	Duplicate	NT	0.083	ND	0.264		2.142	0.020	ND	0.277	ND	0.041	ND	0.118	0.057	ND	NT	0.179	
17	17-1-24A-091803	09/18/03	Indoor	24	Primary	NT	0.083	ND	0.832		1.811	0.020	ND	0.277	ND	0.041	ND	0.138	0.011		NT	0.195	
17	17-1-81A-091903	09/19/03	Indoor	8	Primary	NT	0.083	ND	0.278		1.373	0.020	ND	0.277	ND	0.041	ND	0.134	0.011		NT	0.190	
17	17-1-82A-091903	09/19/03	Indoor	8	Primary	NT	0.083	ND	0.064		0.712	0.020	ND	0.276	ND	0.040	ND	0.081	0.057	ND	NT	0.145	
17	17-1-83A-091903	09/19/03	Indoor	8	Primary	NT	0.083	ND	0.215		0.768	0.020	ND	0.276	ND	0.040	ND	0.142	0.057	ND	NT	0.195	
17	17-1-81A-092203	09/22/03	Indoor	8	Primary	NT	0.082	ND	1.105		1.257	0.020	ND	0.275	ND	0.040	ND	0.149	0.019		NT	0.228	
17	17-1-24A-092303	09/23/03	Indoor	24	Primary	NT	0.083	ND	0.104		1.647	0.020	ND	0.277	ND	0.041	ND	0.061	0.057	ND	NT	0.162	
17	17-1-24A-092503	09/25/03	Indoor	24	Primary	NT	0.083	ND	0.105		1.655	0.020	ND	0.278	ND	0.041	ND	0.045	0.057	ND	NT	0.163	
17	17-1-24C-092603	09/26/03	Indoor	24	Primary	NT	0.141	ND	0.236	ND	1.211	0.045	ND	0.210	ND	0.069	ND	0.138	ND	0.691	ND	NT	0.190	ND
17	17-1-82A-120303	12/03/03	Indoor	8	Primary	NT	0.043		0.230		0.454	0.021	ND	0.286	ND	0.042	ND	0.503	0.010		NT	0.190	
17	17-1-83A-120303	12/03/03	Indoor	8	Primary	NT	0.069		0.707		0.856	0.021	ND	0.288	ND	0.076		0.759	0.019		NT	0.261	
17	17-1-81A-121103	12/11/03	Indoor	8	Primary	NT	0.023		0.100		0.307	0.016		0.286	ND	0.018		0.214	0.059	ND	NT	0.156	
17	17-1-82A-121103	12/11/03	Indoor	8	Primary	NT	0.030		0.115		0.427	0.015		0.287	ND	0.029		0.332	0.059	ND	NT	0.162	
17	17-1-24B-121603	12/16/03	Indoor	24	Primary	NT	0.043		0.390		0.555	0.021	ND	0.288	ND	0.035		0.465	0.014		NT	0.221	
17	17-1-24A-121903	12/19/03	Indoor	24	Primary	NT	0.085	ND	0.358		0.510	0.021	ND	0.285	ND	0.025		0.339	0.012		NT	0.178	
17	17-1-24A-122203	12/22/03	Indoor	24	Primary	NT	0.060		0.559		1.816	0.021	ND	0.286	ND	0.037		0.398	0.017		NT	0.202	
17	17-1-24C-122203	12/22/03	Indoor	24	Split	NT	0.145	ND	1.577		1.419	0.046	ND	0.699		0.092		0.503	0.712	ND	NT	0.404	
17	17-1-24A-010704	01/07/04	Indoor	24	Primary	NT	0.085	ND	0.157		0.680	0.021	ND	0.285	ND	0.013		0.113	0.059	ND	NT	0.155	
17	17-1-24A-010904	01/09/04	Indoor	24	Primary	NT	0.018		0.216		0.739	0.021	ND	0.287	ND	0.028		0.193	0.059	ND	NT	0.156	
17	17-1-24B-010904	01/09/04	Indoor	24	Duplicate	NT	0.021		0.237		0.796	0.021	ND	0.287	ND	0.030		0.202	0.059	ND	NT	0.162	
17	17-1-24A-011304	01/13/04	Indoor	24	Primary	NT	0.056		0.447		0.913	0.021	ND	0.288	ND	0.040		0.316	0.016		NT	0.209	
17	17-1-82A-011504	01/15/04	Indoor	8	Primary	NT	0.056		0.200		0.567	0.021	ND	1.777		0.033		0.410	0.059	ND	NT	0.167	
17	17-1-83A-011504	01/15/04	Indoor	8	Primary	NT	0.086	ND	0.172		0.550	0.021	ND	0.286	ND	0.033		0.377	0.059	ND	NT	0.185	
17	17-1-24A-012004	01/20/04	Indoor	24	Primary	NT	0.064		0.352		0.909	0.021	ND	0.286	ND	0.042		0.340	0.013		NT	0.190	
17	17-1-24A-012204	01/22/04	Indoor	24	Primary	NT	0.086		0.448		0.801	0.021	ND	0.288	ND	0.068		0.464	0.021		NT	0.203	
17	17-1-24A-012604	01/26/04	Indoor	24	Primary	NT	0.035		0.180		0.371	0.021	ND	0.287	ND	0.027		0.244	0.012		NT	0.168	
17	17-1-82A-012804	01/28/04	Indoor	8	Primary	NT	0.056		0.447		0.559	0.021	ND	0.288	ND	0.040		0.548	0.011		NT	0.191	
17	17-1-83A-012804	01/28/04	Indoor	8	Primary	NT	0.060		0.584		0.628	0.021	ND	0.288	ND	0.046		0.548	0.016		NT	0.209	
17	17-1-24A-020304	02/03/04	Indoor	24	Primary	NT	0.051		0.278		0.622	0.021	ND	0.285	ND	0.035		0.271	0.058	ND	NT	0.184	
17	17-1-24B-020304	02/03/04	Indoor	24	Duplicate	NT	0.043		0.278		0.622	0.021	ND	0.285	ND	0.034		0.384	0.058	ND	NT	0.184	
17	17-1-81A-021004	02/10/04	Indoor	8	Primary	NT	0.037		0.223		0.416	0.021	ND	0.287	ND	0.028		0.333	0.011		NT	0.168	
17	17-1-82A-021004	02/10/04	Indoor	8	Primary	NT	0.020		0.274		0.274	0.021	ND	0.287	ND	0.014		0.181	0.059	ND	NT	0.162	
17	17-1-24A-021804	02/18/04	Indoor	24	Primary	NT	0.019		0.129		0.369	0.021	ND	0.286	ND	0.017		0.122	0.059	ND	NT	0.167	
17	17-1-24C-021804	02/18/04	Indoor	24	Split	NT	0.133	ND	0.223	ND	0.261	0.043	ND	0.286		0.067	ND	0.130	ND	0.671	ND	NT	0.179	ND
17	17-1-24A-022004	02/20/04	Indoor	24	Primary	NT	0.047		0.236		0.520	0.021	ND	0.285	ND	0.039		0.355	0.016		NT	0.184	
17	17-1-24A-022304	02/23/04	Indoor	24	Primary	NT	0.047		0.192		0.451	0.021	ND	0.284	ND	0.036		0.292	0.015		NT	0.189	
17	17-1-24A-022504	02/25/04	Indoor	24	Primary	NT	0.032		0.135		1.290	0.021	ND	0.283	ND	0.040		0.170	0.058	ND	NT	0.194	
17	17-1-24A-030204	03/02/04	Indoor	24	Primary	NT	0.043		0.136		0.531	0.021	ND	0.285	ND	0.028		0.321	0.058	ND	NT	0.195	
17	17-1-24A-030404	03/04/04	Indoor	24	Primary	NT	0.064		0.158		0.528	0.021	ND	0.286	ND	0.046		0.503	0.013		NT	0.133	
17	17-1-81A-030804	03/08/04	Indoor	8	Primary	NT	0.034		0.444		0.380	0.021	ND	0.286	ND	0.023		0.268	0.021		NT	0.259	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE	trans-1,2-DCE		Freon 113	1,1,1-TCA	
17	17-1-82A-030804	03/08/04	Indoor	8	Primary	NT	0.031		0.547	0.309	0.021	ND	0.283	ND	0.042	ND	0.241	0.013		NT	0.349	
17	17-1-83A-030804	03/08/04	Indoor	8	Primary	NT	0.032		0.638	0.437	0.013		0.286	ND	0.020		0.243	0.015		NT	0.386	
17	17-1-83C-030804	03/08/04	Indoor	8	Split	NT	0.141	ND	0.617	0.335	0.043	ND	0.210	ND	0.067	ND	0.168	0.670	ND	NT	0.225	
17	17-1-24A-031104	03/11/04	Indoor	24	Primary	NT	0.055		0.321	0.679	0.010		0.285	ND	0.038		0.376	0.023		NT	0.247	
17	17-1-24A-031704	03/17/04	Indoor	24	Primary	NT	0.051		0.435	0.548	0.021	ND	0.285	ND	0.033		0.317	0.016		NT	0.241	
17	17-1-24A-031904	03/19/04	Indoor	24	Primary	NT	0.071		0.244	0.718	0.021	ND	0.278	ND	0.045		0.571	0.013		NT	0.213	
17	17-1-24A-032204	03/22/04	Indoor	24	Primary	NT	0.077		0.136	0.848	0.021	ND	0.285	ND	0.054		0.501	0.014		NT	0.195	
17	17-1-81A-032404	03/24/04	Indoor	8	Primary	NT	0.036		0.122	0.392	0.021	ND	0.286	ND	0.023		0.298	0.059	ND	NT	0.202	
17	17-1-83A-032404	03/24/04	Indoor	8	Primary	NT	0.056		0.158	0.534	0.021	ND	0.286	ND	0.037		0.348	0.014		NT	0.196	
17	17-1-24A-033004	03/30/04	Indoor	24	Primary	NT	0.043		0.157	0.680	0.021	ND	0.285	ND	0.038		0.268	0.012		NT	0.207	
17	17-1-24A-040104	04/01/04	Indoor	24	Primary	NT	0.040		0.118	0.424	0.020	ND	0.277	ND	0.034		0.349	0.057	ND	NT	0.207	
17	17-1-24A-040604	04/06/04	Indoor	24	Primary	NT	0.042		0.120	0.669	0.021	ND	0.281	ND	0.034		0.350	0.058	ND	NT	0.204	
17	17-1-24B-040604	04/06/04	Indoor	24	Duplicate	NT	0.042		0.120	0.613	0.021	ND	0.281	ND	0.033		0.267	0.058	ND	NT	0.204	
17	17-1-82A-040804	04/08/04	Indoor	8	Primary	NT	0.066		0.083	0.661	0.020	ND	0.278	ND	0.049		0.569	0.010		NT	0.196	
17	17-1-81A-041304	04/13/04	Indoor	8	Primary	NT	0.024		0.119	0.244	0.021	ND	0.279	ND	0.015		0.253	0.057	ND	NT	0.146	
17	17-1-82A-041304	04/13/04	Indoor	8	Primary	NT	0.018		0.067	0.227	0.021	ND	0.279	ND	0.041	ND	0.184	0.057	ND	NT	0.180	
17	17-1-83A-041304	04/13/04	Indoor	8	Primary	NT	0.025		0.105	0.304	0.021	ND	0.279	ND	0.015		0.257	0.057	ND	NT	0.146	
17	17-1-24A-041604	04/16/04	Indoor	24	Primary	NT	0.067		0.195	0.248	0.020	ND	0.278	ND	0.041	ND	0.204	0.057	ND	NT	0.191	
17	17-1-24A-041904	04/19/04	Indoor	24	Primary	NT	0.041		0.098	0.051	0.021	ND	0.279	ND	0.041	ND	0.029	0.057	ND	NT	0.158	
17	17-1-24B-041904	04/19/04	Indoor	24	Duplicate	NT	0.046		0.091	0.072	0.021	ND	0.279	ND	0.041	ND	0.021	0.057	ND	NT	0.152	
17	17-1-24A-042204	04/22/04	Indoor	24	Primary	NT	0.027		0.223	0.133	0.021	ND	0.278	ND	0.041	ND	0.073	0.057	ND	NT	0.157	
17	17-1-24A-042804	04/28/04	Indoor	24	Primary	NT	0.099		0.180	0.159	0.020	ND	0.276	ND	0.040	ND	0.186	0.057	ND	NT	0.167	
17	17-1-24A-043004	04/30/04	Indoor	24	Primary	NT	0.040		0.133	0.160	0.021	ND	0.278	ND	0.041	ND	0.163	0.057	ND	NT	0.157	
17	17-1-24A-050304	05/03/04	Indoor	24	Primary	NT	0.054		0.090	0.154	0.020	ND	0.278	ND	0.041	ND	0.142	0.057	ND	NT	0.157	
17	17-1-24A-050504	05/05/04	Indoor	24	Primary	NT	0.040		0.104	0.220	0.020	ND	0.277	ND	0.041	ND	0.236	0.057	ND	NT	0.162	
17	17-1-24B-050504	05/05/04	Indoor	24	Duplicate	NT	0.041		0.090	0.193	0.020	ND	0.277	ND	0.041	ND	0.207	0.057	ND	NT	0.145	
17	17-1-24A-051104	05/11/04	Indoor	24	Primary	NT	0.083	ND	0.111	0.116	0.020	ND	0.278	ND	0.041	ND	0.069	0.015		NT	0.151	
17	17-1-81A-051304	05/13/04	Indoor	8	Primary	NT	0.027		0.160	0.110	0.020	ND	0.278	ND	0.041	ND	0.082	0.015		NT	0.180	
17	17-1-82A-051304	05/13/04	Indoor	8	Primary	NT	0.083	ND	0.077	0.199	0.020	ND	0.278	ND	0.041	ND	0.228	0.057	ND	NT	0.135	
17	17-1-83A-051304	05/13/04	Indoor	8	Primary	NT	0.083	ND	0.119	0.133	0.021	ND	0.278	ND	0.041	ND	0.102	0.057	ND	NT	0.151	
17	17-1-81A-051704	05/17/04	Indoor	8	Primary	NT	0.019		0.059	0.044	0.020	ND	0.278	ND	0.041	ND	0.029	0.057	ND	NT	0.112	
17	17-1-82A-051704	05/17/04	Indoor	8	Primary	NT	0.024		0.050	0.066	0.021	ND	0.278	ND	0.041	ND	0.045	0.057	ND	NT	0.101	
17	17-1-83A-051704	05/17/04	Indoor	8	Primary	NT	0.054		0.174	0.077	0.020	ND	0.278	ND	0.041	ND	0.049	0.057	ND	NT	0.140	
17	17-1-24A-051904	05/19/04	Indoor	24	Primary	NT	0.075		0.195	0.149	0.020	ND	0.155		0.041	ND	0.126	0.057	ND	NT	0.163	
17	17-2-24A-063003	06/30/03	Indoor	24	Primary	NT	0.083	ND	0.764	0.880	0.020	ND	0.277	ND	0.041	ND	0.069	0.057	ND	NT	0.224	
17	17-2-81A-070103	07/01/03	Indoor	8	Primary	NT	0.031		0.126	0.449	0.021	ND	0.280	ND	0.018		0.287	0.057	ND	NT	0.175	
17	17-2-82A-070103	07/01/03	Indoor	8	Primary	NT	0.034		0.045	0.763	0.020	ND	0.275	ND	0.024		0.523	0.056	ND	NT	0.172	
17	17-2-83A-070103	07/01/03	Indoor	8	Primary	NT	0.034		0.325	0.712	0.020	ND	0.276	ND	0.021		0.372	0.057	ND	NT	0.212	
17	17-2-24A-070203	07/02/03	Indoor	24	Primary	NT	0.032		0.097	0.715	0.020	ND	0.277	ND	0.022		0.406	0.057	ND	NT	0.179	
17	17-2-24A-070703	07/07/03	Indoor	24	Primary	NT	0.035		0.105	0.717	0.020	ND	0.278	ND	0.023		0.403	0.057	ND	NT	0.191	
17	17-2-24A-070803	07/08/03	Indoor	24	Primary	NT	0.038		0.112	0.829	0.021	ND	0.279	ND	0.025		0.449	0.057	ND	NT	0.185	
17	17-2-24B-070803	07/08/03	Indoor	24	Duplicate	NT	0.037		0.112	0.829	0.021	ND	0.279	ND	0.024		0.408	0.057	ND	NT	0.185	
17	17-2-24A-070903	07/09/03	Indoor	24	Primary	NT	0.039		1.115	0.883	0.020	ND	0.278	ND	0.023		0.448	0.057	ND	NT	0.185	
17	17-2-24A-071003	07/10/03	Indoor	24	Primary	NT	0.042		0.091	0.828	0.020	ND	0.278	ND	0.023		0.448	0.057	ND	NT	0.202	
17	17-2-81A-071103	07/11/03	Indoor	8	Primary	NT	0.058		0.098	0.773	0.020	ND	0.278	ND	0.031		0.530	0.057	ND	NT	0.202	
17	17-2-82A-071103	07/11/03	Indoor	8	Primary	NT	0.037		0.052	0.474	0.020	ND	0.278	ND	0.022		0.358	0.057	ND	NT	0.162	
17	17-2-83A-071103	07/11/03	Indoor	8	Primary	NT	0.039		0.244	0.883	0.020	ND	0.278	ND	0.019		0.408	0.057	ND	NT	0.224	
17	17-2-24A-071403	07/14/03	Indoor	24	Primary	NT	0.025		0.083	0.604	0.020	ND	0.277	ND	0.015		0.260	0.057	ND	NT	0.195	
17	17-2-24C-071403	07/14/03	Indoor	24	Split	NT	0.120	ND	0.201	ND	0.549	0.037	ND	0.178	ND	0.057	ND	0.235	0.568	ND	NT	0.167	
17	17-2-24A-071503	07/15/03	Indoor	24	Primary	NT	0.040		0.076	0.824	0.020	ND	0.277	ND	0.022		0.402	0.057	ND	NT	0.167	
17	17-2-24A-071603	07/16/03	Indoor	24	Primary	NT	0.039		0.167	0.934	0.020	ND	0.277	ND	0.028		0.487	0.057	ND	NT	0.184	
17	17-2-24C-071603	07/16/03	Indoor	24	Split	NT	0.124	ND	0.763	0.879	0.039	ND	0.185	ND	0.061	ND	0.381	0.608	ND	NT	0.184	
17	17-2-24A-071703	07/17/03	Indoor	24	Primary	NT	0.025		0.160	0.604	0.020	ND	0.277	ND	0.015		0.264	0.057	ND	NT	0.173	
17	17-2-24B-071703	07/17/03	Indoor	24	Duplicate	NT	0.038		0.271	0.989	0.020	ND	0.277	ND	0.022		0.446	0.057	ND	NT	0.190	
17	17-2-81A-071803	07/18/03	Indoor	8	Primary	NT	0.025		0.195	0.418	0.020	ND	0.277	ND	0.015		0.215	0.057	ND	NT	0.185	
17	17-2-82A-071803	07/18/03	Indoor	8	Primary	NT	0.032		0.076	0.605	0.020	ND	0.277	ND	0.022		0.386	0.057	ND	NT	0.173	
17	17-2-83A-071803	07/18/03	Indoor	8	Primary	NT	0.018		0.111	0.385	0.020	ND	0.277	ND	0.015		0.227	0.057	ND	NT	0.224	
17	17-2-81A-072103	07/21/03	Indoor	8	Primary	NT	0.029		0.139	0.429	0.020	ND	0.277	ND	0.013		0.272	0.057	ND	NT	0.168	
17	17-2-81B-072103	07/21/03	Indoor	8	Duplicate	NT	0.023		0.153	0.407	0.020	ND	0.277	ND	0.041	ND	0.199	0.057	ND	NT	0.201	
17	17-2-82A-072103	07/21/03	Indoor	8	Primary	NT	0.030		0.097	0.604	0.020	ND	0.277	ND	0.026		0.369	0.057	ND	NT	2.512	
17	17-2-83A-072103	07/21/03	Indoor	8	Primary	NT	0.021		0.069	0.418	0.020	ND	0.277	ND	0.016		0.256	0.057	ND	NT	0.173	
17	17-2-24A-072203	07/22/03	Indoor	24	Primary	NT	0.025		0.098	0.607	0.020	ND	0.278	ND	0.018		0.265	0.057	ND	NT	0.185	
17	17-2-24C-072203	07/22/03	Indoor	24	Split	NT	0.166	ND	0.279	ND	0.717	0.053	ND	0.247	ND	0.081	ND	0.212	0.814	ND	NT	0.224	ND
17	17-2-24A-072303	07/23/03	Indoor	24	Primary	NT	0.028		0.166	0.710	0.020	ND	0.275	ND	0.019		0.294	0.056	ND	NT	0.194	
17	17-2-24A-072403	07/24/03	Indoor	24	Primary	NT	0.032		0.110	0.816	0.020	ND	0.274	ND	0.018		0.366	0.056	ND	NT	0.199	
17	17-2-24A-072503	07/25/03	Indoor	24	Primary	NT	0.029		0.104	0.516	0.020	ND	0.277	ND	0.023		0.304	0.057	ND	NT	0.207	
17	17-2-24A-072803	07/28/03	Indoor	24	Primary	NT	0.022		0.083	0.401	0.020	ND	0.277	ND	0.021		0.268	0.057	ND	NT	0.196	
17	17-2-81A-072903	07/29/03	Indoor	8	Primary	NT	0.020		0.139	0.319	0.020	ND	0.277	ND	0.012		0.195	0.057	ND	NT	0.190	
17	17-2-82A-072903	07/29/03	Indoor	8	Primary	NT	0.083	ND	0.061	0.357	0.020	ND	0.277	ND	0.012		0.207	0.057	ND	NT	0.173	
17	17-2-83A-072903	07/29/03	Indoor	8	Primary	NT	0.083	ND	0.060	0.264	0.020	ND	0.277	ND	0.041	ND	0.134	0.057	ND	NT	0.251	
17	17-2-24A-073003	07/30/03	Indoor	24	Primary	NT	0.027		0.243	0.450	0.020	ND	0.277	ND	0.030		0.353	0.057	ND	NT	0.162	
17	17-2-24B-073003	07/30/03	Indoor	24	Duplicate	NT	0.023		0.160	0.308	0.020	ND	0.277	ND	0.020		0.353	0.057	ND	NT	0.100	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE	trans-1,2-DCE		Freon 113	1,1,1-TCA	
17	17-2-24A-073103	07/31/03	Indoor	24	Primary	NT	0.083	ND	1.531		0.430	0.020	ND	0.278	ND	0.018		0.264	0.057	ND	NT	0.151	
17	17-2-24A-080103	08/01/03	Indoor	24	Primary	NT	0.028		0.313		0.441	0.020	ND	0.278	ND	0.029		0.346	0.057	ND	NT	0.134	
17	17-2-24C-080103	08/01/03	Indoor	24	Split	NT	0.154	ND	0.258	ND	1.213	0.047	ND	0.228	ND	0.073	ND	0.322	0.733	ND	NT	0.207	ND
17	17-2-24A-080403	08/04/03	Indoor	24	Primary	NT	0.019		0.125		0.500	0.020	ND	0.277	ND	0.015		0.260	0.057	ND	NT	0.128	
17	17-2-24A-080503	08/05/03	Indoor	24	Primary	NT	0.026		0.090		0.406	0.020	ND	0.277	ND	0.017		0.300	0.057	ND	NT	0.128	
17	17-2-24A-080603	08/06/03	Indoor	24	Primary	NT	0.036		0.097		0.879	0.020	ND	0.277	ND	0.023		0.406	0.057	ND	NT	0.184	
17	17-2-24A-080703	08/07/03	Indoor	24	Primary	NT	0.038		0.118		0.714	0.020	ND	0.277	ND	0.025		0.446	0.057	ND	NT	0.168	
17	17-2-81A-080803	08/08/03	Indoor	8	Primary	NT	0.066		0.083		0.714	0.020	ND	0.277	ND	0.045		0.690	0.011		NT	0.179	
17	17-2-82A-080803	08/08/03	Indoor	8	Primary	NT	0.083	ND	0.069		0.538	0.020	ND	0.277	ND	0.041		0.486	0.013		NT	0.167	
17	17-2-83A-080803	08/08/03	Indoor	8	Primary	NT	0.035		0.305		0.769	0.020	ND	0.277	ND	0.024		0.527	0.057	ND	NT	0.201	
17	17-2-81A-081103	08/11/03	Indoor	8	Primary	NT	0.025		0.133		0.465	0.021	ND	0.279	ND	0.022		0.302	0.057	ND	NT	0.174	
17	17-2-82A-081103	08/11/03	Indoor	8	Primary	NT	0.083	ND	0.098		0.464	0.021	ND	0.278	ND	0.016		0.294	0.057	ND	NT	0.174	
17	17-2-83A-081103	08/11/03	Indoor	8	Primary	NT	0.040		0.182		0.721	0.021	ND	0.279	ND	0.027		0.450	0.057	ND	NT	0.203	
17	17-2-24A-081203	08/12/03	Indoor	24	Primary	NT	0.083	ND	0.139		0.771	0.020	ND	0.278	ND	0.033		0.447	0.013		NT	0.190	
17	17-2-24A-081303	08/13/03	Indoor	24	Primary	NT	0.031		0.146		0.714	0.020	ND	0.277	ND	0.026		0.361	0.011		NT	0.190	
17	17-2-24A-081403	08/14/03	Indoor	24	Primary	NT	0.030		0.181		0.717	0.020	ND	0.278	ND	0.041	ND	0.379	0.057	ND	NT	0.196	
17	17-2-24A-081803	08/18/03	Indoor	24	Primary	NT	0.083	ND	0.083		0.390	0.020	ND	0.277	ND	0.021		0.316	0.057	ND	NT	0.195	
17	17-2-24B-081803	08/18/03	Indoor	24	Duplicate	NT	0.028		0.083		0.368	0.020	ND	0.277	ND	0.021		0.251	0.011		NT	0.173	
17	17-2-24A-081903	08/19/03	Indoor	24	Primary	NT	0.083	ND	0.132		0.396	0.020	ND	0.277	ND	0.024		0.313	0.057	ND	NT	0.246	
17	17-2-81A-082003	08/20/03	Indoor	8	Primary	NT	0.018		0.257		0.330	0.020	ND	0.277	ND	0.041	ND	0.179	0.057	ND	NT	0.184	
17	17-2-81B-082003	08/20/03	Indoor	8	Duplicate	NT	0.017		0.257		0.324	0.020	ND	0.277	ND	0.041	ND	0.175	0.057	ND	NT	0.184	
17	17-2-82A-082003	08/20/03	Indoor	8	Primary	NT	0.029		0.058		0.511	0.020	ND	0.277	ND	0.027		0.345	0.057	ND	NT	0.167	
17	17-2-83A-082003	08/20/03	Indoor	8	Primary	NT	0.083	ND	0.090		0.291	0.020	ND	0.277	ND	0.015		0.178	0.057	ND	NT	0.184	
17	17-2-24A-082103	08/21/03	Indoor	24	Primary	NT	0.017		0.104		0.336	0.020	ND	0.277	ND	0.041	ND	0.191	0.057	ND	NT	0.168	
17	17-2-24C-082803	08/21/03	Indoor	24	Split	NT	0.133	ND	0.222	ND	1.650	0.759		0.197	ND	0.065	ND	0.366	0.650	ND	NT	0.173	
17	17-2-24A-082203	08/22/03	Indoor	24	Primary	NT	0.019		0.104		0.369	0.020	ND	0.278	ND	0.016		0.220	0.057	ND	NT	0.151	
17	17-2-24A-082503	08/25/03	Indoor	24	Primary	NT	0.083	ND	0.118		0.319	0.020	ND	0.277	ND	0.030		0.385	0.015		NT	0.123	
17	17-2-81A-082603	08/26/03	Indoor	8	Primary	NT	0.038		0.111		0.401	0.020	ND	0.277	ND	0.032		0.316	0.057	ND	NT	0.151	
17	17-2-82A-082603	08/26/03	Indoor	8	Primary	NT	0.083	ND	0.055		0.461	0.020	ND	0.277	ND	0.026		0.332	0.057	ND	NT	0.151	
17	17-2-83A-082603	08/26/03	Indoor	8	Primary	NT	0.031		0.222		0.549	0.020	ND	0.277	ND	0.027		0.341	0.057	ND	NT	0.167	
17	17-2-24A-082703	08/27/03	Indoor	24	Primary	NT	0.031		0.090		0.550	0.020	ND	0.277	ND	0.024		0.341	0.057	ND	NT	0.156	
17	17-2-24A-082803	08/28/03	Indoor	24	Primary	NT	0.030		0.083		1.597	0.020	ND	0.277	ND	0.022		0.354	0.057	ND	NT	0.151	
17	17-2-24A-082903	08/29/03	Indoor	24	Primary	NT	0.032		0.132		0.506	0.020	ND	0.277	ND	0.021		0.333	0.057	ND	NT	0.134	
17	17-2-24A-090203	09/02/03	Indoor	24	Primary	NT	0.036		0.118		0.549	0.020	ND	0.277	ND	0.031		0.369	0.057	ND	NT	0.145	
17	17-2-81A-090303	09/03/03	Indoor	8	Primary	NT	0.075		0.069		0.660	0.020	ND	0.277	ND	0.065		0.812	0.015		NT	0.101	
17	17-2-82A-090303	09/03/03	Indoor	8	Primary	NT	0.050		0.060		0.879	0.020	ND	0.277	ND	0.053		0.649	0.013		NT	0.134	
17	17-2-83A-090303	09/03/03	Indoor	8	Primary	NT	0.046		0.041		0.769	0.020	ND	0.277	ND	0.040		0.527	0.011		NT	0.128	
17	17-2-24A-090403	09/04/03	Indoor	24	Primary	NT	0.083	ND	0.139		0.292	0.020	ND	0.277	ND	0.041	ND	0.142	0.057	ND	NT	0.151	
17	17-2-24B-090403	09/04/03	Indoor	24	Duplicate	NT	0.083	ND	0.132		0.242	0.020	ND	0.277	ND	0.018		0.195	0.057	ND	NT	0.179	
17	17-2-24A-090503	09/05/03	Indoor	24	Primary	NT	0.015		0.132		0.331	0.020	ND	0.278	ND	0.041	ND	0.195	0.057	ND	NT	0.151	
17	17-2-24A-090803	09/08/03	Indoor	24	Primary	NT	0.028		0.118		0.544	0.020	ND	0.277	ND	0.019		0.316	0.057	ND	NT	0.156	
17	17-2-24A-090903	09/09/03	Indoor	24	Primary	NT	0.083	ND	0.083		0.264	0.020	ND	0.277	ND	0.041	ND	0.260	0.057	ND	NT	0.168	
17	17-2-24A-091003	09/10/03	Indoor	24	Primary	NT	0.062		0.355		0.550	0.020	ND	0.044		0.049		0.609	0.018		NT	0.101	
17	17-2-81A-091103	09/11/03	Indoor	8	Primary	NT	0.019		0.230		0.309	0.020	ND	0.278	ND	0.012		0.216	0.028		NT	0.174	
17	17-2-82A-091103	09/11/03	Indoor	8	Primary	NT	0.083	ND	0.174		0.237	0.020	ND	0.277	ND	0.023		0.293	0.014		NT	0.151	
17	17-2-83A-091103	09/11/03	Indoor	8	Primary	NT	0.030		0.424		0.606	0.020	ND	0.278	ND	0.027		0.297	0.019		NT	0.213	
17	17-2-24A-091203	09/12/03	Indoor	24	Primary	NT	0.017		0.367		0.357	0.020	ND	0.277	ND	0.041	ND	0.203	0.025		NT	0.190	
17	17-2-24B-091203	09/12/03	Indoor	24	Duplicate	NT	0.020		0.354		0.379	0.020	ND	0.277	ND	0.019		0.195	0.035		NT	0.173	
17	17-2-81A-091503	09/15/03	Indoor	8	Primary	NT	0.039		0.222		1.705	0.020	ND	0.277	ND	0.025		0.349	0.057	ND	NT	1.062	
17	17-2-82A-091503	09/15/03	Indoor	8	Primary	NT	0.040		0.056		1.319	0.020	ND	0.277	ND	0.026		0.394	0.057	ND	NT	0.140	
17	17-2-83A-091503	09/15/03	Indoor	8	Primary	NT	0.032		0.069		1.375	0.020	ND	0.277	ND	0.022		0.341	0.057	ND	NT	0.145	
17	17-2-24A-091603	09/16/03	Indoor	24	Primary	NT	0.034		0.153		2.364	0.020	ND	0.277	ND	0.023		0.374	0.057	ND	NT	0.162	
17	17-2-24A-091703	09/17/03	Indoor	24	Primary	NT	0.029		0.264		2.361	0.020	ND	0.277	ND	0.020		0.365	0.013		NT	0.179	
17	17-2-24A-091803	09/18/03	Indoor	24	Primary	NT	0.030		0.763		2.250	0.020	ND	0.277	ND	0.019		0.389	0.057	ND	NT	0.212	
17	17-2-24A-091903	09/19/03	Indoor	24	Primary	NT	0.035		0.194		2.582	0.020	ND	0.277	ND	0.022		0.381	0.010		NT	0.179	
17	17-2-24B-091903	09/19/03	Indoor	24	Duplicate	NT	0.035		0.194		2.088	0.020	ND	0.277	ND	0.022		0.381	0.057	ND	NT	0.179	
17	17-2-24A-092203	09/22/03	Indoor	24	Primary	NT	0.033		0.511		2.405	0.020	ND	0.275	ND	0.040	ND	0.335	0.014		NT	0.200	
17	17-2-24A-092303	09/23/03	Indoor	24	Primary	NT	0.046		0.118		2.196	0.020	ND	0.277	ND	0.029		0.446	0.057	ND	NT	0.162	
17	17-2-82A-092403	09/24/03	Indoor	8	Primary	NT	0.046		0.132		1.322	0.020	ND	0.278	ND	0.029		0.447	0.057	ND	NT	0.151	
17	17-2-83A-092403	09/24/03	Indoor	8	Primary	NT	0.037		0.083		1.318	0.020	ND	0.277	ND	0.022		0.381	0.057	ND	NT	0.167	
17	17-2-24A-092603	09/26/03	Indoor	24	Primary	NT	0.083	ND	0.083		2.532	0.020	ND	0.277	ND	0.041	ND	0.272	0.057	ND	NT	0.151	
17	17-2-24B-120103	12/01/03	Indoor	24	Duplicate	NT	0.086	ND	0.129		0.125	0.021	ND	0.286	ND	0.036		0.231	0.059	ND	NT	0.144	
17	17-2-24A-120303	12/03/03	Indoor	24	Primary	NT	0.073		0.446		0.740	0.021	ND	0.287	ND	0.076		0.714	0.017		NT	0.220	
17	17-2-24A-121603	12/16/03	Indoor	24	Primary	NT	0.052		0.311		0.630	0.021	ND	0.288	ND	0.042		0.549	0.015		NT	0.204	
17	17-2-24A-121903	12/19/03	Indoor	24	Primary	NT	0.051		0.372		1.132	0.021	ND	0.285	ND	0.075		0.401	0.021		NT	0.184	
17	17-2-24A-122203	12/22/03	Indoor	24	Primary	NT	0.073		0.538		1.475	0.021	ND	0.286	ND	0.042		0.461	0.017		NT	0.196	
17	17-2-24A-122903	12/29/03	Indoor	24	Primary	NT	0.085	ND	0.128		1.179	0.021	ND	0.283	ND	0.024		0.158	0.058	ND	NT	0.160	
17	17-2-24A-010704	01/07/04	Indoor	24	Primary	NT	0.085	ND	0.136		0.623	0.021	ND	0.285	ND	0.015		0.105	0.059	ND	NT	0.144	
17	17-2-81A-010904	01/09/04	Indoor	8	Primary	NT	0.086	ND	0.223		0.427	0.021	ND	0.287	ND	0.029		0.193	0.059	ND	NT	0.156	
17	17-2-82A-010904	01/09/04	Indoor	8	Primary	NT	0.086	ND	0.151		0.125	0.021	ND	0.287	ND	0.042	ND	0.076	0.059	ND	NT	0.162	
17	17-2-83A-010904	01/09/04	Indoor	8	Primary	NT	0.047		0.330		0.624	0.021	ND	0.286	ND	0.063		0.461	0.022		NT	0.190	
17	17-2-24A-011304	01/13/04	Indoor	24	Primary	NT	0.095		0.469		1.198	0.021	ND	0.288	ND	0.059		0.464	0.020		NT	0.215	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
17	17-2-24A-011504	01/15/04	Indoor	24	Primary	NT	0.073		0.193		1.759		0.021	ND	0.286	ND	0.046		0.385		0.013		NT	0.184	
17	17-2-81A-012004	01/20/04	Indoor	8	Primary	NT	0.094		0.136		0.625		0.021	ND	0.286	ND	0.071		0.503		0.013		NT	0.167	
17	17-2-81B-012004	01/20/04	Indoor	8	Duplicate	NT	0.103		0.144		0.682		0.021	ND	0.286	ND	0.075		0.545		0.015		NT	0.185	
17	17-2-82A-012004	01/20/04	Indoor	8	Primary	NT	0.086		0.359		0.739		0.021	ND	0.286	ND	0.059		0.420		0.011		NT	0.191	
17	17-2-83A-012004	01/20/04	Indoor	8	Primary	NT	0.098		0.574		0.851		0.021	ND	0.286	ND	0.071		0.671		0.021		NT	0.213	
17	17-2-24A-012204	01/22/04	Indoor	24	Primary	NT	0.056		0.607		0.801		0.021	ND	0.288	ND	0.051		0.334		0.020		NT	0.244	
17	17-2-81A-012604	01/26/04	Indoor	8	Primary	NT	0.077		0.324		0.473		0.021	ND	0.287	ND	0.059		0.548		0.017		NT	0.180	
17	17-2-83A-012604	01/26/04	Indoor	8	Primary	NT	0.086	ND	0.166		0.154		0.021	ND	0.287	ND	0.042	ND	0.076		0.059	ND	NT	0.156	
17	17-2-24A-012804	01/28/04	Indoor	24	Primary	NT	0.090		0.591		0.913		0.021	ND	0.288	ND	0.063		0.759		0.017		NT	0.197	
17	17-2-24C-012804	01/28/04	Indoor	24	Split	NT	0.138	ND	10.818		0.685		0.043	ND	0.205	ND	0.067	ND	0.548		0.674	ND	NT	0.186	ND
17	17-2-81A-020304	02/03/04	Indoor	8	Primary	NT	0.081		0.414		0.734		0.021	ND	0.285	ND	0.063		0.584		0.013		NT	0.178	
17	17-2-82C-020304	02/03/04	Indoor	8	Split	NT	0.154	ND	0.257	ND	0.679		0.048	ND	0.228	ND	0.088		0.389		0.752	ND	NT	0.207	ND
17	17-2-83A-020304	02/03/04	Indoor	8	Primary	NT	0.085		0.178		0.677		0.021	ND	0.284	ND	0.058		0.625		0.011		NT	0.172	
17	17-2-24A-020604	02/06/04	Indoor	24	Primary	NT	0.082		0.441		0.916		0.021	ND	0.289	ND	0.059		0.761		0.016		NT	0.192	
17	17-2-24B-020604	02/06/04	Indoor	24	Duplicate	NT	0.078		0.463		0.802		0.021	ND	0.289	ND	0.055		0.761		0.018		NT	0.186	
17	17-2-24A-021004	02/10/04	Indoor	24	Primary	NT	0.060		0.475		0.684		0.021	ND	0.287	ND	0.042		0.463		0.012		NT	0.185	
17	17-2-24A-021204	02/12/04	Indoor	24	Primary	NT	0.069		0.589		0.739		0.021	ND	0.286	ND	0.050		0.545		0.024		NT	0.196	
17	17-2-24A-021804	02/18/04	Indoor	24	Primary	NT	0.043		0.208		0.494		0.021	ND	0.286	ND	0.024		0.260		0.059	ND	NT	0.191	
17	17-2-82A-022004	02/20/04	Indoor	8	Primary	NT	0.068		0.100		0.519		0.021	ND	0.284	ND	0.050		0.367		0.058	ND	NT	0.155	
17	17-2-24A-022304	02/23/04	Indoor	24	Primary	NT	0.077		0.143		0.620		0.021	ND	0.284	ND	0.058		0.458		0.058	ND	NT	0.189	
17	17-2-24A-022504	02/25/04	Indoor	24	Primary	NT	0.059		0.142		3.085		0.021	ND	0.283	ND	0.087		0.377		0.012		NT	0.188	
17	17-2-81A-030204	03/02/04	Indoor	8	Primary	NT	0.060		0.107		0.554		0.021	ND	0.285	ND	0.042		0.459		0.011		NT	0.189	
17	17-2-82A-030204	03/02/04	Indoor	8	Primary	NT	0.064		0.122		0.566		0.021	ND	0.285	ND	0.042		0.544		0.059	ND	NT	0.184	
17	17-2-83A-030204	03/02/04	Indoor	8	Primary	NT	0.055		0.128		0.480		0.021	ND	0.284	ND	0.035		0.404		0.058	ND	NT	0.189	
17	17-2-24A-030404	03/04/04	Indoor	24	Primary	NT	0.120		0.158		0.852		0.021	ND	0.286	ND	0.076		0.923		0.018		NT	0.294	
17	17-2-24B-030404	03/04/04	Indoor	24	Duplicate	NT	0.111		0.158		0.852		0.021	ND	0.286	ND	0.071		0.881		0.019		NT	0.283	
17	17-2-24A-030804	03/08/04	Indoor	24	Primary	NT	0.085	ND	0.530		0.465		0.019		0.286	ND	0.027		0.318		0.019		NT	0.369	
17	17-2-24A-031104	03/11/04	Indoor	24	Primary	NT	0.077		0.321		0.848		0.007		0.285	ND	0.046		0.543		0.023		NT	0.276	
17	17-2-24A-031704	03/17/04	Indoor	24	Primary	NT	0.047		0.414		0.480		0.021	ND	0.285	ND	0.028		0.292		0.013		NT	0.235	
17	17-2-81A-031904	03/19/04	Indoor	8	Primary	NT	0.050		0.148		0.612		0.021	ND	0.280	ND	0.035		0.493		0.015		NT	0.198	
17	17-2-82A-031904	03/19/04	Indoor	8	Primary	NT	0.088		0.112		0.890		0.021	ND	0.280	ND	0.053		0.616		0.015		NT	0.198	
17	17-2-83A-031904	03/19/04	Indoor	8	Primary	NT	0.130		0.407		1.112		0.021	ND	0.280	ND	0.086		0.780		0.019		NT	0.254	
17	17-2-81A-032204	03/22/04	Indoor	8	Primary	NT	0.115		0.229		1.074		0.021	ND	0.285	ND	0.075		0.751		0.022		NT	0.201	
17	17-2-83A-032204	03/22/04	Indoor	8	Primary	NT	0.102		0.122		1.019		0.021	ND	0.285	ND	0.071		0.585		0.059	ND	NT	0.196	
17	17-2-24A-032404	03/24/04	Indoor	24	Primary	NT	0.077		0.122		0.853		0.021	ND	0.286	ND	0.055		0.630		0.016		NT	0.202	
17	17-2-24A-033004	03/30/04	Indoor	24	Primary	NT	0.081		0.143	ND	1.246		0.021	ND	0.285	ND	0.067		0.544		0.014		NT	0.201	
17	17-2-24A-040104	04/01/04	Indoor	24	Primary	NT	0.079		0.090		0.825		0.020	ND	0.277	ND	0.065		0.650		0.015		NT	0.196	
17	17-2-24A-040604	04/06/04	Indoor	24	Primary	NT	0.092		0.120		1.338		0.021	ND	0.281	ND	0.078		0.741		0.015		NT	0.210	
17	17-2-24A-040804	04/08/04	Indoor	24	Primary	NT	0.108		0.097		1.047		0.020	ND	0.278	ND	0.085		0.936		0.018		NT	0.213	
17	17-2-24A-041304	04/13/04	Indoor	24	Primary	NT	0.020		0.105		0.238		0.021	ND	0.279	ND	0.041	ND	0.192		0.057	ND	NT	0.146	
17	17-2-81A-041604	04/16/04	Indoor	8	Primary	NT	0.083	ND	0.181		0.127		0.020	ND	0.278	ND	0.041	ND	0.110		0.057	ND	NT	0.168	
17	17-2-82A-041604	04/16/04	Indoor	8	Primary	NT	0.083	ND	0.052		0.237		0.020	ND	0.278	ND	0.041	ND	0.163		0.013		NT	0.162	
17	17-2-83B-041604	04/16/04	Indoor	8	Duplicate	NT	0.034		0.265		0.348		0.020	ND	0.278	ND	0.041	ND	0.245		0.057	ND	NT	0.163	
17	17-2-81C-041904	04/19/04	Indoor	8	Split	NT	0.142	ND	0.238	ND	0.047	ND	0.045	ND	0.211	ND	0.070	ND	0.139	ND	0.696	ND	NT	0.192	ND
17	17-2-83A-041904	04/19/04	Indoor	8	Primary	NT	0.084	ND	0.175		0.005	ND	0.021	ND	0.279	ND	0.041	ND	0.031		0.057	ND	NT	0.146	
17	17-2-81A-042204	04/22/04	Indoor	8	Primary	NT	0.018		0.084		0.105		0.021	ND	0.279	ND	0.041	ND	0.098		0.057	ND	NT	0.135	
17	17-2-24A-042804	04/28/04	Indoor	24	Primary	NT	0.070		0.166		0.164		0.020	ND	0.276	ND	0.040	ND	0.158		0.057	ND	NT	0.184	
17	17-2-81B-050304	05/03/04	Indoor	8	Duplicate	NT	0.034		0.118		0.160		0.020	ND	0.278	ND	0.041	ND	0.151		0.057	ND	NT	0.146	
17	17-2-82A-050304	05/03/04	Indoor	8	Primary	NT	0.034		0.118		0.253		0.020	ND	0.277	ND	0.041	ND	0.260		0.057	ND	NT	0.145	
17	17-2-83A-050304	05/03/04	Indoor	8	Primary	NT	0.225		0.084		0.149		0.032	ND	0.420	ND	0.061	ND	0.139		0.086	ND	NT	0.112	
17	17-2-24A-050504	05/05/04	Indoor	24	Primary	NT	0.038		0.090		0.198		0.020	ND	0.277	ND	0.041	ND	0.211		0.057	ND	NT	0.145	
17	17-2-24A-051104	05/11/04	Indoor	24	Primary	NT	0.032		0.118		0.121		0.020	ND	0.278	ND	0.041	ND	0.069		0.057	ND	NT	0.151	
17	17-2-24A-051304	05/13/04	Indoor	24	Primary	NT	0.050		0.112		0.166		0.020	ND	0.278	ND	0.041	ND	0.179		0.013		NT	0.157	
17	17-2-24A-051704	05/17/04	Indoor	24	Primary	NT	0.104		0.139		0.077		0.020	ND	0.278	ND	0.041	ND	0.057		0.057	ND	NT	0.151	
17	17-2-24B-051704	05/17/04	Indoor	24	Duplicate	NT	0.083	ND	0.153		0.061		0.020	ND	0.278	ND	0.041	ND	0.034		0.057	ND	NT	0.135	
17	17-2-24A-051904	05/19/04	Indoor	24	Primary	NT	0.037		0.077		0.132		0.020	ND	0.278	ND	0.041	ND	0.106		0.057	ND	NT	0.135	
	Indoor - Basement				Number of Samples	0	166		166		166		166		166		166		166		166		0	166	
					Number of Detects	0	130		159		164		3		1		128		165		56		0	161	
					Minimum Detection	0	0.014948897		0.04094414		0.06070172		0.00699976		0.04436589		0.01215831		0.031101347		0.010142177		0	0.100468865	
					Maximum Detection	0	0.224579881		10.8177511		3.08496358		0.75947956		0.04436589		0.08775196		0.935574561		0.034852319		0	2.512341662	
	Indoor - First Floor				Number of Samples	0	158		158		158		158		158		158		158		158		0	158	
					Number of Detects	0	101		150		155		8		6		89		153		33		0	149	
					Minimum Detection	0	0.013249165		0.04586974		0.04357821		0.0099612		0.09868222		0.0113594		0.020879491		0.01016734		0	0.083767268	
					Maximum Detection	0	0.099061786		3.67757852		53.4521831		0.01622847		1.7765528		0.09217356		0.758838003		0.022548966		0	2.460634326	
	Outdoor				Number of Samples	0	150		150		150		150		150		150		150		150		0	150	
					Number of Detects	0	20		147		148		3		1		13		139		10		0	146	
					Minimum Detection	0	0.013681495		0.02892479		0.02792518		0.03981425		0.24387756		0.0122468		0.010597489		0.010252176		0	0.101691562	
					Maximum Detection	0	0.192053504		4.29922954		6.40626504		0.2086449		0.24387756		0.09065501		0.311415396		0.033162385		0	0.855852729	
20	20-2-24A-120303	12/03/03	Indoor	24	Primary	NT	0.035		0.447		3.657		0.021	ND	0.288	ND	0.046		0.844		0.028		NT	0.296	
20	20-1-24B-121103	12/11/03	Indoor	24	Primary	NT	0.040		0.180		3.137		0.021	ND	0.287	ND	0.059		0.632		0.037		NT	0.272	
20	20-1-24A-121903	12/19/03	Indoor	24	Primary	NT	0.086	ND	0.424		4.206		0.021	ND	0.286	ND	0.038		0.587		0.026		NT	0.214	
20	20-2-24A-121903	12/19/03	Indoor	24	Primary	NT	0.033		0.675		7.388		0.021	ND	0.286	ND	0.046		0.546		0.032		NT	0.456	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
20	20-1-24A-122903	12/29/03	Indoor	24	Primary	NT	0.068		0.121		5.241	0.021	ND	0.284	ND	0.075		1.456		0.039		NT	0.269	
20	20-2-24A-122903	12/29/03	Indoor	24	Primary	NT	0.085	ND	0.278		2.761	0.021	ND	0.284	ND	0.042	ND	0.341		0.017		NT	0.687	
20	20-1-24A-010904	01/09/04	Indoor	24	Primary	NT	0.026		0.216		2.912	0.021	ND	0.288	ND	0.038		0.464		0.017		NT	0.424	
20	20-2-24A-010904	01/09/04	Indoor	24	Primary	NT	0.086	ND	0.202		2.683	0.021	ND	0.288	ND	0.020		0.257		0.013		NT	1.102	
20	20-1-24A-011504	01/15/04	Indoor	24	Primary	NT	0.052		0.237		6.834	0.021	ND	0.287	ND	0.071		0.883		0.037		NT	0.347	
20	20-2-24A-011504	01/15/04	Indoor	24	Primary	NT	0.056		0.295		9.681	0.021	ND	0.287	ND	0.097		0.841		0.050		NT	0.359	
20	20-1-24A-012204	01/22/04	Indoor	24	Primary	NT	0.043		0.558		3.731	0.021	ND	0.289	ND	0.064		0.636		0.036		NT	0.268	
20	20-2-24A-012204	01/22/04	Indoor	24	Primary	NT	0.043		0.537		6.315	0.021	ND	0.289	ND	0.085		0.551		0.042		NT	0.362	
20	20-1-24A-012804	01/28/04	Indoor	24	Primary	NT	0.048		1.014		4.871	0.021	ND	0.289	ND	0.068		1.227		0.036		NT	0.256	
20	20-1-24B-012804	01/28/04	Indoor	24	Duplicate	NT	0.048		1.014		5.158	0.021	ND	0.289	ND	0.076		1.269		0.038		NT	0.291	
20	20-2-24A-012804	01/28/04	Indoor	24	Primary	NT	0.048		1.014		8.597	0.021	ND	0.289	ND	0.085		0.973		0.041		NT	0.419	
20	20-1-24A-020604	02/06/04	Indoor	24	Primary	NT	0.039		0.414		3.852	0.021	ND	0.290	ND	0.059		1.104		0.030		NT	0.280	
20	20-2-24A-020604	02/06/04	Indoor	24	Primary	NT	0.034		0.516		6.325	0.021	ND	0.290	ND	0.064		0.807		0.035		NT	0.467	
20	20-1-24A-021204	02/12/04	Indoor	24	Primary	NT	0.025		0.490		2.510	0.021	ND	0.287	ND	0.040		0.590		0.031		NT	0.284	
20	20-2-24A-021204	02/12/04	Indoor	24	Primary	NT	0.047		0.504		4.963	0.021	ND	0.287	ND	0.039		0.548		0.015		NT	0.313	
20	20-2-24B-021204	02/12/04	Indoor	24	Duplicate	NT	0.025		0.497		3.594	0.021	ND	0.287	ND	0.046		0.548		0.031		NT	0.348	
20	20-1-24A-022004	02/20/04	Indoor	24	Primary	NT	0.035		0.509		2.610	0.021	ND	0.286	ND	0.063		0.796		0.031		NT	0.323	
20	20-2-24A-022004	02/20/04	Indoor	24	Primary	NT	0.040		0.272		6.808	0.021	ND	0.286	ND	0.088		0.587		0.041		NT	0.479	
20	20-2-24C-022004	02/20/04	Indoor	24	Split	NT	0.128	ND	0.208		6.241	0.041	ND	0.191	ND	0.113		0.587		0.628	ND	NT	0.444	
20	20-1-24A-022504	02/25/04	Indoor	24	Primary	NT	0.051		0.114		2.590	0.021	ND	0.284	ND	0.096		1.247		0.035		NT	0.269	
20	20-2-24A-022504	02/25/04	Indoor	24	Primary	NT	0.085	ND	0.114		1.971	0.021	ND	0.284	ND	0.030		0.262		0.015		NT	0.629	
20	20-1-24A-030404	03/04/04	Indoor	24	Primary	NT	0.043		0.165		2.670	0.021	ND	0.286	ND	0.076		0.881		0.030		NT	0.202	
20	20-2-24A-030404	03/04/04	Indoor	24	Primary	NT	0.047		0.179		4.261	0.021	ND	0.286	ND	0.092		0.839		0.042		NT	0.289	
20	20-1-24A-031104	03/11/04	Indoor	24	Primary	NT	0.030		0.294		2.782	0.021	ND	0.286	ND	0.042		0.545		0.031		NT	0.294	
20	20-2-24A-031104	03/11/04	Indoor	24	Primary	NT	0.029		0.323		3.293	0.008		0.286	ND	0.042		0.503		0.034		NT	0.352	
20	20-1-24A-031904	03/19/04	Indoor	24	Primary	NT	0.030		0.258		2.722	0.021	ND	0.286	ND	0.042		0.502		0.024		NT	0.288	
20	20-2-24A-031904	03/19/04	Indoor	24	Primary	NT	0.031		0.265		3.799	0.021	ND	0.286	ND	0.050		0.461		0.027		NT	0.351	
20	20-1-24A-032404	03/24/04	Indoor	24	Primary	NT	0.028		0.129		2.217	0.021	ND	0.286	ND	0.036		0.420		0.020		NT	0.202	
20	20-2-24A-032404	03/24/04	Indoor	24	Primary	NT	0.030		0.136		3.922	0.021	ND	0.286	ND	0.050		0.374		0.024		NT	0.202	
20	20-1-24A-040104	04/01/04	Indoor	24	Primary	NT	0.083	ND	0.125		2.806	0.020	ND	0.277	ND	0.027		0.280		0.013		NT	0.224	
20	20-1-24A-040804	04/08/04	Indoor	24	Primary	NT	0.024		0.097		2.149	0.020	ND	0.278	ND	0.031		0.447		0.017		NT	0.207	
20	20-2-24A-040804	04/08/04	Indoor	24	Primary	NT	0.040		0.097		6.611	0.020	ND	0.278	ND	0.077		0.569		0.035		NT	0.218	
20	20-1-24A-041604	04/16/04	Indoor	24	Primary	NT	0.158		0.195		1.655	0.020	ND	0.278	ND	0.041	ND	0.530		0.057	ND	NT	0.202	
20	20-2-24A-041604	04/16/04	Indoor	24	Primary	NT	0.150		0.195		4.027	0.020	ND	0.278	ND	0.041	ND	0.530		0.057	ND	NT	0.191	
20	20-1-24A-042204	04/22/04	Indoor	24	Primary	NT	0.087		0.265		2.155	0.021	ND	0.278	ND	0.041	ND	0.367		0.065		NT	0.174	
20	20-2-24A-042204	04/22/04	Indoor	24	Primary	NT	0.067		0.202		3.647	0.021	ND	0.278	ND	0.041	ND	0.408		0.038		NT	0.202	
20	20-1-24A-043004	04/30/04	Indoor	24	Primary	NT	0.071		0.140		1.933	0.021	ND	0.278	ND	0.041	ND	0.449		0.057	ND	NT	0.174	
20	20-2-24A-043004	04/30/04	Indoor	24	Primary	NT	0.071		0.167		4.364	0.021	ND	0.278	ND	0.041	ND	0.530		0.049		NT	0.269	
20	20-1-24A-050504	05/05/04	Indoor	24	Primary	NT	0.083	ND	0.104		1.816	0.020	ND	0.277	ND	0.041	ND	0.398		0.033		NT	0.201	
20	20-1-24C-050504	05/05/04	Indoor	24	Split	NT	0.141	ND	0.236	ND	2.201	0.045	ND	0.210	ND	0.069	ND	0.650		0.691	ND	NT	0.190	ND
20	20-2-24A-050504	05/05/04	Indoor	24	Primary	NT	0.062		0.104		4.017	0.020	ND	0.277	ND	0.041	ND	0.378		0.041		NT	0.190	
20	20-2-24A-051304	05/13/04	Indoor	24	Primary	NT	0.137		0.132		4.747	0.020	ND	0.278	ND	0.041	ND	0.448		0.057	ND	NT	0.179	
20	20-2-24A-051904	05/19/04	Indoor	24	Primary	NT	0.083	ND	0.098		0.883	0.020	ND	0.278	ND	0.041	ND	0.102		0.057	ND	NT	0.163	
20	20-1-24A-061004	06/10/04	Indoor	24	Primary	NT	0.117		0.251		1.380	0.021	ND	0.278	ND	0.041	ND	0.175		0.057	ND	NT	0.269	
20	20-2-24A-061004	06/10/04	Indoor	24	Primary	NT	0.112		0.119		0.718	0.021	ND	0.278	ND	0.041	ND	0.061		0.057	ND	NT	0.185	
20	20-2-24B-061004	06/10/04	Indoor	24	Duplicate	NT	0.071		0.105		0.718	0.021	ND	0.278	ND	0.041	ND	0.065		0.057	ND	NT	0.163	
20	20-1-24A-061704	06/17/04	Indoor	24	Primary	NT	0.145		0.146		0.879	0.020	ND	0.277	ND	0.041	ND	0.138		0.057	ND	NT	0.201	
20	20-1-24C-061704	06/17/04	Indoor	24	Split	NT	0.195		0.236	ND	0.934	0.044	ND	0.209	ND	0.069	ND	0.146		0.689	ND	NT	0.190	ND
20	20-2-24A-061704	06/17/04	Indoor	24	Primary	NT	0.050		0.763		0.187	0.020	ND	0.277	ND	0.041	ND	0.260		0.057	ND	NT	0.318	
20	20-1-24A-062304	06/23/04	Indoor	24	Primary	NT	0.137		0.118		2.206	0.020	ND	0.278	ND	0.041	ND	0.334		0.057	ND	NT	0.185	
20	20-2-24A-062304	06/23/04	Indoor	24	Primary	NT	0.145		0.111		1.103	0.020	ND	0.278	ND	0.041	ND	0.118		0.057	ND	NT	0.179	
					Number of Samples	0	55		55		55	55		55		55		55		55		0	55	
	Indoor				Number of Detects	0	0		53		55	1		0		35		55		40		0	53	
					Minimum Detection	0	0.024084367		0.09742963		0.18674348	0.00810787		0		0.02023437		0.061158178		0.013001167		0	0.162668108	
					Maximum Detection	0	0.194577409		1.01355958		9.68100051	0.00810787		0		0.11311092		1.456350448		0.065285095		0	1.10226872	
					Number of Samples	0	36		36		36	36		36		36		36		36		0	36	
	Outdoor				Number of Detects	0	11		35		35	1		2		4		30		4		0	32	
					Minimum Detection	0	0.015515998		0.0650644		0.04018616	0.2086449		0.24387756		0.0122468		0.011283747		0.012742741		0	0.138034034	
					Maximum Detection	0	0.192053504		0.73569202		6.40626504	0.2086449		0.36619376		0.03353184		0.250427696		0.033162385		0	0.226342766	
N210	N210-1-24A-060704	06/07/04	Indoor	24	Primary	NT	0.339		0.402		24.677	0.020	ND	0.276	ND	0.040	ND	2.065		0.089		NT	0.195	
N210	N210-2-24A-060704	06/07/04	Indoor	24	Primary	NT	0.083		0.132		0.987	0.020	ND	0.276	ND	0.040	ND	0.101		0.011		NT	0.201	
N210	N210-2-24A-060804	06/08/04	Indoor	24	Primary	NT	0.141		0.146		0.604	0.020	ND	0.276	ND	0.041	ND	0.065		0.013		NT	0.162	
N210	N210-2-24B-060804	06/08/04	Indoor	24	Duplicate	NT	0.070		0.146		0.658	0.020	ND	0.276	ND	0.041	ND	0.069		0.057	ND	NT	0.184	
N210	N210-1-24A-060904	06/09/04	Indoor	24	Primary	NT	0.581		0.765		60.546	0.020	ND	0.277	ND	0.041	ND	4.877		0.130		NT	0.263	
N210	N210-2-24A-060904	06/09/04	Indoor	24	Primary	NT	0.050		0.153		0.991	0.020	ND	0.277	ND	0.041	ND	0.089		0.057	ND	NT	0.185	
N210	N210-1-24A-061004	06/10/04	Indoor	24	Primary	NT	0.957		1.186		110.439	0.021	ND	0.278	ND	0.041	ND	8.154		0.294		NT	0.286	
N210	N210-1-24A-061104	06/11/04	Indoor	24	Primary	NT	0.286		0.438		14.320	0.020	ND	0.278	ND	0.041	ND	1.261		0.102		NT	0.201	
N210	N210-2-24A-062104	06/21/04	Indoor	24	Primary	NT	0.120		0.153		0.825	0.020	ND	0.277	ND	0.041	ND	0.110		0.057	ND	NT	0.190	
N210	N210-1-24A-062204	06/22/04	Indoor	24	Primary	NT	0.336		0.451		30.226	0.020	ND	0.277	ND	0.041	ND	3.084		0.057	ND	NT	0.190	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA	PCE	TCE	VC	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA
N210	N210-2-24A-062204	06/22/04	Indoor	24	Primary	NT	0.083	0.153	0.824	0.020 ND	0.277 ND	0.041 ND	0.114	0.057 ND	NT	0.190
N210	N210-1-24A-062304	06/23/04	Indoor	24	Primary	NT	0.399	0.453	35.295	0.020 ND	0.278 ND	0.041 ND	3.420	0.057 ND	NT	0.207
N210	N210-2-24A-062404	06/24/04	Indoor	24	Primary	NT	0.129	0.238	1.217	0.021 ND	0.279 ND	0.041 ND	0.155	0.057 ND	NT	0.197
N210	N210-1-24A-062504	06/25/04	Indoor	24	Primary	NT	0.346	0.419	32.084	0.021 ND	0.279 ND	0.041 ND	3.145	0.057 ND	NT	0.225
N210	N210-2-24A-062504	06/25/04	Indoor	24	Primary	NT	0.125	0.154	1.660	0.021 ND	0.279 ND	0.041 ND	0.241	0.057 ND	NT	0.208
N210	N210-1-24A-090704	09/07/04	Indoor	24	Primary	NT	NT	0.598	41.260	0.047 ND	NT	NT	3.696	NT	NT	NT
N210	N210-1-24B-090704	09/07/04	Indoor	24	Duplicate	NT	NT	1.529	176.041	0.045 ND	NT	NT	16.248	NT	NT	NT
N210	N210-3-24A-090704	09/07/04	Indoor	24	Primary	NT	NT	0.341	2.861	0.047 ND	NT	NT	0.240	NT	NT	NT
N210	N210-5-24A-090704	09/07/04	Indoor	24	Primary	NT	NT	0.632	3.081	0.034 ND	NT	NT	0.106 ND	NT	NT	NT
N210	N210-6-24A-090704	09/07/04	Indoor	24	Primary	NT	NT	0.577	32.457	0.034 ND	NT	NT	2.031	NT	NT	NT
N210	N210-1-24A-090904	09/09/04	Indoor	24	Primary	NT	NT	0.640	33.580	0.047 ND	NT	NT	3.292	NT	NT	NT
N210	N210-3-24A-090904	09/09/04	Indoor	24	Primary	NT	NT	0.320 ND	1.817	0.060 ND	NT	NT	0.187 ND	NT	NT	NT
N210	N210-5-24A-090904	09/09/04	Indoor	24	Primary	NT	NT	0.654	2.037	0.042 ND	NT	NT	0.130 ND	NT	NT	NT
N210	N210-6-24A-090904	09/09/04	Indoor	24	Primary	NT	NT	0.369	16.515	0.045 ND	NT	NT	1.301	NT	NT	NT
N210	N210-3-24A-091404	09/14/04	Indoor	24	Primary	NT	NT	0.411	2.429	0.063 ND	NT	NT	0.265	NT	NT	NT
N210	N210-5-24A-091404	09/14/04	Indoor	24	Primary	NT	NT	0.976	2.484	0.045 ND	NT	NT	0.232	NT	NT	NT
N210	N210-6-24A-091404	09/14/04	Indoor	24	Primary	NT	NT	2.650	24.290	0.045 ND	NT	NT	1.997	NT	NT	NT
N210	N210-1-24A-091604	09/16/04	Indoor	24	Primary	NT	NT	0.514	47.863	0.047 ND	NT	NT	4.468	NT	NT	NT
N210	N210-3-24A-091604	09/16/04	Indoor	24	Primary	NT	NT	0.250 ND	2.036	0.047 ND	NT	NT	0.187	NT	NT	NT
N210	N210-5-24A-091604	09/16/04	Indoor	24	Primary	NT	NT	0.903	2.146	0.045 ND	NT	NT	0.162	NT	NT	NT
N210	N210-6-24A-091604	09/16/04	Indoor	24	Primary	NT	NT	0.299	8.802	0.039 ND	NT	NT	0.650	NT	NT	NT
N210	210-1-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.453	31.474	0.042 ND	NT	NT	2.772	NT	NT	NT
N210	210-1-24C-071205	07/12/05	Indoor	24	Split	NT	NT	0.363	21.535	0.021 ND	NT	NT	2.283	NT	NT	NT
N210	210-6-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.258	11.043	0.045 ND	NT	NT	0.938	NT	NT	NT
N210	210-7-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.188 ND	0.037 ND	0.034 ND	NT	NT	0.114	NT	NT	NT
N210	210-8-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.237 ND	3.865	0.045 ND	NT	NT	0.302	NT	NT	NT
N210	210-8-24B-071205	07/12/05	Indoor	24	Duplicate	NT	NT	0.244 ND	4.196	0.047 ND	NT	NT	0.306	NT	NT	NT
N210	210-9-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.321	16.565	0.042 ND	NT	NT	1.264	NT	NT	NT
N210	210-1-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	0.438	28.092	0.045 ND	NT	NT	1.790	NT	NT	NT
N210	210-6-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	0.327	13.771	0.047 ND	NT	NT	0.976	NT	NT	NT
N210	210-6-24C-071405	07/14/05	Indoor	24	Split	NT	NT	0.334	12.118	0.020 ND	NT	NT	1.179	NT	NT	NT
N210	210-8-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	0.584	4.241	0.042 ND	NT	NT	0.297	NT	NT	NT
N210	210-9-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	0.348	18.728	0.045 ND	NT	NT	1.220	NT	NT	NT
N210	210-1-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.278	23.108	0.045 ND	NT	NT	1.787	NT	NT	NT
N210	210-6-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	1.112 ND	8.253	0.210 ND	NT	NT	0.772	NT	NT	NT
N210	210-7-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.236 ND	4.181	0.045 ND	NT	NT	0.337	NT	NT	NT
N210	210-7-24B-071905	07/19/05	Indoor	24	Duplicate	NT	NT	0.264 ND	4.071	0.050 ND	NT	NT	0.337	NT	NT	NT
N210	210-8-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.250 ND	4.126	0.047 ND	NT	NT	0.329	NT	NT	NT
N210	210-9-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.236 ND	13.755	0.045 ND	NT	NT	1.016	NT	NT	NT
N210	210-1-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.425	36.943	0.045 ND	NT	NT	2.728	NT	NT	NT
N210	210-6-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.230 ND	12.130	0.042 ND	NT	NT	0.977	NT	NT	NT
N210	210-8-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.223 ND	4.246	0.042 ND	NT	NT	0.334	NT	NT	NT
N210	210-9-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.237 ND	14.336	0.045 ND	NT	NT	1.181	NT	NT	NT
N210	210-9-24C-072105	07/21/05	Indoor	24	Split	NT	NT	0.230	15.990	0.020 ND	NT	NT	1.588	NT	NT	NT
N210	210-1-24A-092705	09/27/05	Indoor	24	Primary	NT	NT	0.603	35.537	0.045 ND	NT	NT	2.460	NT	NT	NT
N210	210-14-24A-092705	09/27/05	Indoor	24	Primary	NT	NT	0.575	0.466	0.042 ND	NT	NT	0.131 ND	NT	NT	NT
N210	210-15-24A-092705	09/27/05	Indoor	24	Primary	NT	NT	0.589	0.389	0.042 ND	NT	NT	0.135 ND	NT	NT	NT
N210	210-16-24A-092705	09/27/05	Indoor	24	Primary	NT	NT	0.589	0.428	0.042 ND	NT	NT	0.131 ND	NT	NT	NT
N210	210-8-24A-092705	09/27/05	Indoor	24	Primary	NT	NT	0.561	1.666	NT	NT	NT	0.156 ND	NT	NT	NT
N210	210-1-24A-092905	09/29/05	Indoor	24	Primary	NT	NT	0.697	4.194	0.047 ND	NT	NT	0.367	NT	NT	NT
N210	210-14-24A-092905	09/29/05	Indoor	24	Primary	NT	NT	0.767	0.381	0.045 ND	NT	NT	0.139 ND	NT	NT	NT
N210	210-14-24C-092905	09/29/05	Indoor	24	Split	NT	NT	0.697	0.359	0.020 ND	NT	NT	0.039	NT	NT	NT
N210	210-15-24A-092905	09/29/05	Indoor	24	Primary	NT	NT	0.697	0.303	0.042 ND	NT	NT	0.130 ND	NT	NT	NT
N210	210-16-24A-092905	09/29/05	Indoor	24	Primary	NT	NT	0.697	0.303	0.042 ND	NT	NT	0.130 ND	NT	NT	NT
N210	210-8-24A-092905	09/29/05	Indoor	24	Primary	NT	NT	0.697	0.883	0.042 ND	NT	NT	0.130 ND	NT	NT	NT
N210	210-14-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.493	0.295	0.042 ND	NT	NT	0.132 ND	NT	NT	NT
N210	210-15-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.493	0.223	0.042 ND	NT	NT	0.132 ND	NT	NT	NT
N210	210-16-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.500	0.234	0.042 ND	NT	NT	0.132 ND	NT	NT	NT
N210	210-6-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.634	0.396	0.040 ND	NT	NT	0.123 ND	NT	NT	NT
N210	210-6-24B 010306	01/03/06	Indoor	24	Duplicate	NT	NT	0.479	0.440	0.042 ND	NT	NT	0.132 ND	NT	NT	NT
N210	210-8-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.436	0.457	0.042 ND	NT	NT	0.136 ND	NT	NT	NT
N210	210-9-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.268	0.490	0.045 ND	NT	NT	0.140 ND	NT	NT	NT
N210	210-1-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.706	0.430	NT	NT	NT	0.215 ND	NT	NT	NT
N210	210-14-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.706	0.352	0.043 ND	NT	NT	0.132 ND	NT	NT	NT
N210	210-15-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.706	0.251	0.040 ND	NT	NT	0.124 ND	NT	NT	NT
N210	210-15-24B 010506	01/05/06	Indoor	24	Duplicate	NT	NT	0.847	0.268	0.043 ND	NT	NT	0.124	NT	NT	NT
N210	210-16-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.685	0.279	0.037 ND	NT	NT	0.111 ND	NT	NT	NT
N210	210-6-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.777	0.363	0.040 ND	NT	NT	0.124 ND	NT	NT	NT
N210	210-8-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.777	0.536	0.040 ND	NT	NT	0.124 ND	NT	NT	NT
N210	210-9-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.777	0.430	0.043 ND	NT	NT	0.132 ND	NT	NT	NT
N210	210-9-24C-010506	01/05/06	Indoor	24	Split	NT	NT	1.059	0.548	0.021 ND	NT	NT	0.107	NT	NT	NT
N210	210-12-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	0.237 ND	2.974	0.045 ND	NT	NT	0.248	NT	NT	NT

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA	PCE	TCE	VC	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA
N210	210-12-24B-071405	07/14/05	Indoor	24	Duplicate	NT	NT	0.237	3.085	0.045 ND	NT	NT	0.256	NT	NT	NT
N210	210-12-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.230 ND	2.592	0.042 ND	NT	NT	0.212	NT	NT	NT
N210	210-12-24A 010306	01/03/06	Indoor	24	Primary	NT	NT	0.774	0.407	0.053 ND	NT	NT	0.411	NT	NT	NT
N210	210-12-24A 010506	01/05/06	Indoor	24	Primary	NT	NT	0.847	0.302	0.043 ND	NT	NT	0.132 ND	NT	NT	NT
					Number of Samples	0	15	86	86	84	15	15	86	15	0	15
	Indoor - first and second floors				Number of Detects	0	15	71	85	0	0	0	60	6	0	15
					Minimum Detection	0	0.049785047	0.13161714	0.22291778	0	0	0	0.039112187	0.011337164	0	0.161685161
					Maximum Detection	0	0.957299403	2.64994491	176.04066	0	0	0	16.24779263	0.293559255	0	0.286166522
					Number of Samples	0	8	21	21	21	8	8	21	8	0	8
	Outdoor				Number of Detects	0	8	17	20	1	0	0	7	0	0	8
					Minimum Detection	0	0.036494281	0.07765525	0.04168406	0.17992736	0	0	0.014029578	0	0	0.147646924
					Maximum Detection	0	0.178447754	5.10611856	2.65810698	0.17992736	0	0	0.160050693	0	0	0.177562883
N211	211-1-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.237 ND	0.047 ND	0.045 ND	NT	NT	0.139 ND	NT	NT	NT
N211	211-3-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.237 ND	0.047 ND	0.045 ND	NT	NT	0.139 ND	NT	NT	NT
N211	211-5-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.202 ND	0.040 ND	0.037 ND	NT	NT	0.118 ND	NT	NT	NT
N211	211-2-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	1.461	0.045 ND	0.042 ND	NT	NT	0.134 ND	NT	NT	NT
N211	211-4-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	2.018	0.048 ND	0.047 ND	NT	NT	0.142 ND	NT	NT	NT
N211	211-1-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.257 ND	0.051 ND	0.050 ND	NT	NT	0.150 ND	NT	NT	NT
N211	211-3-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.236 ND	0.047 ND	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N211	211-5-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.243 ND	0.048 ND	0.047 ND	NT	NT	0.142 ND	NT	NT	NT
N211	211-2-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.230 ND	0.045 ND	0.042 ND	NT	NT	0.134 ND	NT	NT	NT
N211	211-4-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.237 ND	0.047 ND	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N211	211-4-24B-072105	07/21/05	Indoor	24	Duplicate	NT	NT	0.905	0.232	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N211	211-6-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	2.227	0.419	0.042 ND	NT	NT	0.134 ND	NT	NT	NT
N211	211-6-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.279 ND	0.055 ND	0.052 ND	NT	NT	0.163 ND	NT	NT	NT
					Number of Samples	0	0	13	13	13	0	0	13	0	0	0
	Indoor				Number of Detects	0	0	4	2	0	0	0	0	0	0	0
					Minimum Detection	0	0	0.90548427	0.23158105	0	0	0	0	0	0	0
					Maximum Detection	0	0	2.22664695	0.41863077	0	0	0	0	0	0	0
					Number of Samples	0	0	4	4	4	0	0	4	0	0	0
	Outdoor				Number of Detects	0	0	2	4	1	0	0	0	0	0	0
					Minimum Detection	0	0	0.47367449	0.46651809	0.17992736	0	0	0	0	0	0
					Maximum Detection	0	0	5.10611856	1.20738056	0.17992736	0	0	0	0	0	0
N239	239A-3-24A-071205	07/12/05	Indoor	24	Primary	NT	NT	0.244 ND	0.607	0.047 ND	NT	NT	0.143 ND	NT	NT	NT
N239	239A-2-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	0.237 ND	0.771	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N239	239A-2-24B-071405	07/14/05	Indoor	24	Duplicate	NT	NT	0.299	0.826	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N239	239A-4-24A-071405	07/14/05	Indoor	24	Primary	NT	NT	1.113	0.661	0.042 ND	NT	NT	0.130 ND	NT	NT	NT
N239	239A-3-24A-071905	07/19/05	Indoor	24	Primary	NT	NT	0.236 ND	0.446	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N239	239A-2-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.641	0.992	0.045 ND	NT	NT	0.138 ND	NT	NT	NT
N239	239A-4-24A-072105	07/21/05	Indoor	24	Primary	NT	NT	0.536	0.662	0.047 ND	NT	NT	0.142 ND	NT	NT	NT
					Number of Samples	0	0	7	7	7	0	0	7	0	0	0
	Indoor				Number of Detects	0	0	4	7	0	0	0	0	0	0	0
					Minimum Detection	0	0	0.29920568	0.44565355	0	0	0	0	0	0	0
					Maximum Detection	0	0	1.11332348	0.99249022	0	0	0	0	0	0	0
					Number of Samples	0	0	4	4	4	0	0	4	0	0	0
	Outdoor				Number of Detects	0	0	2	4	1	0	0	0	0	0	0
					Minimum Detection	0	0	0.47367449	0.46651809	0.17992736	0	0	0	0	0	0
					Maximum Detection	0	0	5.10611856	1.20738056	0.17992736	0	0	0	0	0	0
N243	N243-3-24A-080403	08/04/03	Indoor	24	Primary	NT	0.083 ND	0.167	0.435	0.020 ND	0.278 ND	0.041 ND	0.073	0.057 ND	NT	0.286
N243	N243-3-24A-080503	08/05/03	Indoor	24	Primary	NT	0.083 ND	0.125	0.061	0.020 ND	0.278 ND	0.041 ND	0.039	0.057 ND	NT	0.280
N243	N243-3-24B-080503	08/05/03	Indoor	24	Duplicate	NT	0.083 ND	0.111	0.066	0.020 ND	0.278 ND	0.041 ND	0.038	0.057 ND	NT	0.308
N243	N243-3-81A-080603	08/06/03	Indoor	8	Primary	NT	0.083 ND	0.091	0.166	0.020 ND	0.278 ND	0.041 ND	0.033	0.057 ND		0.314
N243	N243-3-82A-080603	08/06/03	Indoor	8	Primary	NT	0.083 ND	0.070	0.127	0.020 ND	0.278 ND	0.041 ND	0.013	0.057 ND		0.398
N243	N243-3-83A-080603	08/06/03	Indoor	8	Primary	NT	0.083 ND	0.195	0.220	0.020 ND	0.278 ND	0.041 ND	0.037	0.057 ND		0.392
N243	N243-3-24A-080703	08/07/03	Indoor	24	Primary	NT	0.083 ND	0.160	0.204	0.020 ND	0.278 ND	0.041 ND	0.028	0.057 ND	NT	0.415
N243	N243-3-24A-080803	08/08/03	Indoor	24	Primary	NT	0.083 ND	0.139	0.083	0.020 ND	0.278 ND	0.041 ND	0.024	0.057 ND	NT	0.387
N243	243-3-24A-030804	03/08/04	Indoor	24	Primary	NT	0.084 ND	0.702	0.278	0.009	0.280 ND	0.041 ND	0.049	0.020	NT	0.548
N243	243-3-24A-030904	03/09/04	Indoor	24	Primary	NT	0.084 ND	0.477	0.261	0.021 ND	0.280 ND	0.041 ND	0.021	0.010	NT	0.322
N243	243-3-24A-031004	03/10/04	Indoor	24	Primary	NT	0.083 ND	0.266	0.327	0.021 ND	0.279 ND	0.041 ND	0.070	0.016	NT	0.332
N243	243-3-24B-031004	03/10/04	Indoor	24	Duplicate	NT	0.083 ND	0.266	0.338	0.009	0.279 ND	0.041 ND	0.049	0.015	NT	0.338
N243	243-3-82A-031104	03/11/04	Indoor	8	Primary	NT	0.084 ND	0.168	0.116	0.021 ND	0.279 ND	0.041 ND	0.020	0.057 ND		0.411
N243	243-3-83A-031104	03/11/04	Indoor	8	Primary	NT	0.084 ND	0.463	0.305	0.008	0.280 ND	0.041 ND	0.090	0.029		0.531
N243	243-3-24A-031204	03/12/04	Indoor	24	Primary	NT	0.084 ND	0.280	0.266	0.021 ND	0.279 ND	0.041 ND	0.036	0.057 ND	NT	0.321
N243	N243-5-24A-080403	08/04/03	Indoor	24	Primary	NT	0.083 ND	0.237	0.066	0.020 ND	0.278 ND	0.041 ND	0.022	0.057 ND	NT	0.482
N243	N243-2-81A-080403	08/04/03	Indoor	8	Primary	NT	0.083 ND	0.216	0.066	0.020 ND	0.278 ND	0.041 ND	0.014	0.057 ND		0.896
N243	N243-2-81B-080403	08/04/03	Indoor	8	Duplicate	NT	0.083 ND	0.132	0.051	0.020 ND	0.278 ND	0.041 ND	0.011	0.057 ND		0.616
N243	N243-2-82A-080403	08/04/03	Indoor	8	Primary	NT	0.083 ND	0.146	0.061	0.020 ND	0.278 ND	0.041 ND	0.057 ND	0.057 ND		0.560
N243	N243-2-83A-080403	08/04/03	Indoor	8	Primary	NT	0.083 ND	0.202	0.083	0.020 ND	0.278 ND	0.041 ND	0.015	0.057 ND		0.673
N243	N243-2-24A-080503	08/05/03	Indoor	24	Primary	NT	0.083 ND	0.306	0.099	0.047	0.278 ND	0.039	0.014	0.057 ND	NT	0.840
N243	N243-4-24A-080503	08/05/03	Indoor	24	Primary	NT	0.083 ND	0.160	0.051	0.020 ND	0.278 ND	0.041 ND	0.023	0.057 ND	NT	0.241
N243	N243-5-81A-080503	08/05/03	Indoor	8	Primary	NT	0.083 ND	0.153	0.048	0.020 ND	0.278 ND	0.041 ND	0.020	0.057 ND		0.330
N243	N243-5-82A-080503	08/05/03	Indoor	8	Primary	NT	0.083 ND	0.097	0.303	0.020 ND	0.277 ND	0.041 ND	0.022	0.057 ND		0.386

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA
N243	N243-5-83A-080503	08/05/03	Indoor	8	Primary	NT	0.083	ND	0.251		0.066		0.020	ND	0.278	ND	0.041	ND	0.019		0.057	ND			0.353
N243	N243-4-24A-080603	08/06/03	Indoor	24	Primary	NT	0.083	ND	0.111		0.232		0.020	ND	0.278	ND	0.041	ND	0.022		0.057	ND	NT		0.263
N243	N243-4-24B-080603	08/06/03	Indoor	24	Duplicate	NT	0.083	ND	0.118		0.226		0.020	ND	0.278	ND	0.041	ND	0.023		0.057	ND	NT		0.275
N243	N243-5-24A-080603	08/06/03	Indoor	24	Primary	NT	0.083	ND	0.125		0.204		0.020	ND	0.278	ND	0.041	ND	0.020		0.057	ND	NT		0.375
N243	N243-2-24A-080703	08/07/03	Indoor	24	Primary	NT	0.083	ND	0.181		0.083		0.020	ND	0.278	ND	0.041	ND	0.022		0.057	ND	NT		0.729
N243	N243-4-24A-080703	08/07/03	Indoor	24	Primary	NT	0.083	ND	0.125		0.226		0.020	ND	0.278	ND	0.041	ND	0.017		0.057	ND	NT		0.280
N243	N243-5-24A-080703	08/07/03	Indoor	24	Primary	NT	0.083	ND	0.132		0.254		0.020	ND	0.278	ND	0.041	ND	0.022		0.057	ND	NT		0.381
N243	N243-2-24A-080803	08/08/03	Indoor	24	Primary	NT	0.083	ND	0.244		0.094		0.020	ND	0.278	ND	0.041	ND	0.025		0.057	ND	NT		0.840
N243	N243-5-24A-080803	08/08/03	Indoor	24	Primary	NT	0.083	ND	0.139		0.083		0.020	ND	0.278	ND	0.041	ND	0.031		0.057	ND	NT		0.370
N243	N243-5-24B-080803	08/08/03	Indoor	24	Duplicate	NT	0.083	ND	0.153		0.099		0.020	ND	0.278	ND	0.041	ND	0.032		0.057	ND	NT		0.375
N243	N243-4-82A-080803	08/08/03	Indoor	8	Primary	NT	0.083	ND	0.084		0.031		0.020	ND	0.278	ND	0.041	ND	0.011		0.057	ND			0.280
N243	N243-4-83A-080803	08/08/03	Indoor	8	Primary	NT	0.083	ND	0.244		0.138		0.020	ND	0.278	ND	0.041	ND	0.049		0.057	ND			0.291
N243	243-2-24A-030804	03/08/04	Indoor	24	Primary	NT	0.084	ND	0.582		0.172		0.021	ND	0.280	ND	0.041	ND	0.035		0.011		NT		1.129
N243	243-5-24A-030804	03/08/04	Indoor	24	Primary	NT	0.084	ND	0.644		0.294		0.021	ND	0.279	ND	0.041	ND	0.040		0.021		NT		0.732
N243	243-4-81A-030804	03/08/04	Indoor	8	Primary	NT	0.084	ND	0.378		0.172		0.017		0.279	ND	0.041	ND	0.022		0.021				1.747
N243	243-4-82A-030804	03/08/04	Indoor	8	Primary	NT	0.084	ND	0.518		0.222		0.008		0.279	ND	0.041	ND	0.032		0.012				0.535
N243	243-2-24A-030904	03/09/04	Indoor	24	Primary	NT	0.084	ND	0.512		0.461		0.021	ND	0.280	ND	0.041	ND	0.025		0.057	ND	NT		0.959
N243	243-4-24A-030904	03/09/04	Indoor	24	Primary	NT	0.084	ND	0.365		0.010	ND	0.013		0.280	ND	0.041	ND	0.019		0.011		NT		0.260
N243	243-5-24A-030904	03/09/04	Indoor	24	Primary	NT	0.084	ND	0.344		0.261		0.021	ND	0.280	ND	0.041	ND	0.022		0.057	ND	NT		0.530
N243	243-5-24C-030904	03/09/04	Indoor	24	Split	NT	0.138	ND	0.309		0.222		0.042	ND	0.205	ND	0.066	ND	0.135	ND	0.656	ND	NT		0.429
N243	243-2-24A-031004	03/10/04	Indoor	24	Primary	NT	0.083	ND	0.315		0.454		0.021	ND	0.279	ND	0.041	ND	0.022		0.012		NT		0.957
N243	243-4-24A-031004	03/10/04	Indoor	24	Primary	NT	0.083	ND	0.259		0.360		0.021		0.279	ND	0.041	ND	0.070		0.022		NT		0.276
N243	243-5-81A-031004	03/10/04	Indoor	8	Primary	NT	0.083	ND	0.112		0.161		0.021	ND	0.279	ND	0.041	ND	0.036		0.057	ND			0.450
N243	243-5-82A-031004	03/10/04	Indoor	8	Primary	NT	0.083	ND	0.224		0.321		0.021	ND	0.279	ND	0.041	ND	0.029		0.057	ND			0.562
N243	243-5-83A-031004	03/10/04	Indoor	8	Primary	NT	0.084	ND	0.371		0.321		0.021	ND	0.279	ND	0.041	ND	0.057		0.034				0.529
N243	243-2-24A-031104	03/11/04	Indoor	24	Primary	NT	0.084	ND	0.350		0.166		0.007		0.280	ND	0.041	ND	0.045		0.012		NT		0.902
N243	243-4-24A-031104	03/11/04	Indoor	24	Primary	NT	0.084	ND	0.280		0.322		0.016		0.280	ND	0.041	ND	0.045		0.015		NT		0.248
N243	243-5-24A-031104	03/11/04	Indoor	24	Primary	NT	0.084	ND	0.266		0.405		0.021	ND	0.280	ND	0.041	ND	0.032		0.013		NT		0.496
N243	243-4-24A-031204	03/12/04	Indoor	24	Primary	NT	0.084	ND	0.266		0.299		0.021	ND	0.279	ND	0.041	ND	0.037		0.013		NT		0.265
N243	243-4-24B-031204	03/12/04	Indoor	24	Duplicate	NT	0.084	ND	0.273		0.294		0.021	ND	0.279	ND	0.041	ND	0.053		0.017		NT		0.355
N243	243-5-24A-031204	03/12/04	Indoor	24	Primary	NT	0.084	ND	0.273		0.388		0.021	ND	0.279	ND	0.041	ND	0.028		0.057	ND	NT		0.518
N243	243-2-81A-031204	03/12/04	Indoor	8	Primary	NT	0.084	ND	0.399		0.188		0.021	ND	0.279	ND	0.041	ND	0.024		0.013				1.070
N243	243-2-82A-031204	03/12/04	Indoor	8	Primary	NT	0.083	ND	0.287		0.100		0.006		0.279	ND	0.041	ND	0.025		0.057	ND			1.575
N243	243-2-83A-031204	03/12/04	Indoor	8	Primary	NT	0.084	ND	0.427		0.216		0.008		0.279	ND	0.041	ND	0.057		0.011				1.578
					Number of Samples	0	43		43		43		43		43		43		43		43		0		43
	Indoor - Basement				Number of Detects	0	0		40		39		7		0		1		38		13		14		40
					Minimum Detection	0	0		0.08354341		0.03141391		0.00713168		0		0.03864926		0.010585357		0.010661515		0		0.240752833
					Maximum Detection	0	0		0.64440509		0.46094839		0.0472136		0		0.03864926		0.069506891		0.03355597		0		1.747254125
					Number of Samples	0	15		15		15		15		15		15		15		15		0		15
	Indoor - First Floor				Number of Detects	0	0		15		15		3		0		0		15		5		5		15
					Minimum Detection	0	0		0.06969659		0.06060925		0.00846089		0		0		0.013036141		0.010251457		0		0.279945155
					Maximum Detection	0	0		0.70175595		0.43549884		0.00872699		0		0		0.090221857		0.029117054		0		0.547558776
					Number of Samples	0	8		8		8		8		8		8		8		8		0		8
	Outdoor				Number of Detects	0	0		8		8		0		0		0		7		2		0		8
					Minimum Detection	0	0		0.1825429		0.0435208		0		0		0		0.011947352		0.010375413		0		0.11339373
					Maximum Detection	0	0		0.46218207		0.50176718		0		0		0		0.049913613		0.016466113		0		0.326285658
N259	259-1-24A-071205	07/12/05	Indoor	24	Primary	NT	NT		0.837		0.370		0.050	ND	NT		NT		0.151	ND	NT		NT		NT
N259	259-2-24A-071205	07/12/05	Indoor	24	Primary	NT	NT		1.186		0.536		0.050	ND	NT		NT		0.151	ND	NT		NT		NT
N259	259-1-24A-071905	07/19/05	Indoor	24	Primary	NT	NT		0.834		0.396		0.050	ND	NT		NT		0.154	ND	NT		NT		NT
N259	259-1-24B-071905	07/19/05	Indoor	24	Duplicate	NT	NT		0.834		0.391		0.047	ND	NT		NT		0.142	ND	NT		NT		NT
N259	259-2-24A-071905	07/19/05	Indoor	24	Primary	NT	NT		1.251		0.605		0.042	ND	NT		NT		0.130	ND	NT		NT		NT
					Number of Samples	0	0		5		5		5		0		0		5		0		0		0
	Indoor				Number of Detects	0	0		5		5		0		0		0		0		0		0		0
					Minimum Detection	0	0		0.83402185		0.36995399		0		0		0		0		0		0		0
					Maximum Detection	0	0		1.25103277		0.60520853		0		0		0		0		0		0		0
					Number of Samples	0	0		2		2		2		0		0		2		0		0		0
	Outdoor				Number of Detects	0	0		1		2		0		0		0		0		0		0		0
					Minimum Detection	0	0		0.47367449		0.49892975		0		0		0		0		0		0		0
					Maximum Detection	0	0		0.47367449		0.51228254		0		0		0		0		0		0		0
Outdoor	A17-1-24A-063003	06/30/03	Outdoor	24	Primary	NT	0.083	ND	0.153		0.336		0.020	ND	0.277	ND	0.041	ND	0.073		0.057	ND	NT		0.173
Outdoor	A17-1-24A-070103	07/01/03	Outdoor	24	Primary	NT	0.028		0.266		0.586		0.020	ND	0.276	ND	0.040	ND	0.059		0.021		NT		0.256
Outdoor	A17-1-81A-070203	07/02/03	Outdoor	8	Primary	NT	0.084	ND	0.140		0.266		0.021	ND	0.279	ND	0.041	ND	0.018		0.057	ND	NT		0.186
Outdoor	A17-1-82A-070203	07/02/03	Outdoor	8	Primary	NT	0.085	ND	0.048		0.280		0.021	ND	0.282	ND	0.041	ND	0.018		0.058	ND	NT		0.177
Outdoor	A17-1-83A-070203	07/02/03	Outdoor	8	Primary	NT	0.014		4.299		1.021		0.021	ND	0.286	ND	0.042	ND	0.142		0.059	ND	NT		0.248
Outdoor	A17-1-81A-070703	07/07/03	Outdoor	8	Primary	NT	0.085	ND	0.093		0.175		0.021	ND	0.285	ND	0.042	ND	0.019		0.058	ND	NT		0.224
Outdoor	A17-1-82A-070703	07/07/03	Outdoor	8	Primary	NT	0.085	ND	0.069		0.118		0.021	ND	0.283	ND	0.041	ND	0.062		0.058	ND	NT		0.131
Outdoor	A17-1-83A-070703	07/07/03	Outdoor	8	Primary	NT	0.086	ND	0.208		0.205		0.021	ND	0.287	ND	0.042	ND	0.071		0.059	ND	NT		0.197
Outdoor	A17-1-24A-070803	07/08/03	Outdoor	24	Primary	NT	0.085	ND	0.099		0.213		0.021	ND	0.283	ND	0.041	ND	0.028		0.058	ND	NT		0.856
Outdoor	A17-1-24A-070903	07/09/03	Outdoor	24	Primary	NT	0.085	ND	0.149		0.292		0.021	ND	0.282	ND	0.041	ND	0.032		0.058	ND	NT		0.194
Outdoor	A17-24A-071003	07/10/03	Outdoor	24	Primary	NT	0.085	ND	0.071		0.247		0.021	ND	0.283	ND	0.041	ND	0.023		0.058	ND	NT		0.200
Outdoor	A17-24A-071103	07/11/03	Outdoor	24	Primary	NT	0.085	ND	0.135		0.361		0.021	ND	0.284	ND	0.042	ND	0.050		0.058	ND	NT		0.200
Outdoor	A17-24A-071403	07/14/03	Outdoor	24	Primary	NT	0.124	ND	0.118		0.659		0.031	ND	0.418	ND	0.061	ND	0.027		0.085	ND	NT		0.128

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
Outdoor	A17-24A-071503	07/15/03	Outdoor	24	Primary	NT	0.084	ND	0.070	0.273	0.021	ND	0.281	ND	0.041	ND	0.023		0.058	ND	NT	0.170	
Outdoor	A17-24A-071603	07/16/03	Outdoor	24	Primary	NT	0.083	ND	0.180	0.297	0.020	ND	0.277	ND	0.041	ND	0.053		0.057	ND	NT	0.173	
Outdoor	A17-81A-071703	07/17/03	Outdoor	8	Primary	NT	0.082	ND	0.110	0.282	0.020	ND	0.273	ND	0.040	ND	0.031		0.056	ND	NT	0.220	
Outdoor	A17-82A-071703	07/17/03	Outdoor	8	Primary	NT	0.083	ND	0.250	0.252	0.020	ND	0.277	ND	0.041	ND	0.027		0.057	ND	NT	0.201	
Outdoor	A17-83A-071703	07/17/03	Outdoor	8	Primary	NT	0.084	ND	0.127	0.146	0.021	ND	0.282	ND	0.041	ND	0.040		0.058	ND	NT	0.182	
Outdoor	A17-24A-071803	07/18/03	Outdoor	24	Primary	NT	0.083	ND	0.126	0.194	0.021	ND	0.279	ND	0.041	ND	0.024		0.057	ND	NT	0.191	
Outdoor	A17-24A-072103	07/21/03	Outdoor	24	Primary	NT	0.083	ND	0.091	0.276	0.021	ND	0.279	ND	0.041	ND	0.015		0.057	ND	NT	0.197	
Outdoor	A17-24B-072103	07/21/03	Outdoor	24	Duplicate	NT	0.083	ND	0.140	0.442	0.021	ND	0.279	ND	0.041	ND	0.019		0.057	ND	NT	0.163	
Outdoor	A17-81A-072203	07/22/03	Outdoor	8	Primary	NT	0.083	ND	0.215	0.220	0.020	ND	0.277	ND	0.041	ND	0.057	ND	0.057	ND	NT	0.218	
Outdoor	A17-82A-072203	07/22/03	Outdoor	8	Primary	NT	0.083	ND	0.077	0.177	0.020	ND	0.278	ND	0.041	ND	0.011		0.057	ND	NT	0.180	
Outdoor	A17-83A-072203	07/22/03	Outdoor	8	Primary	NT	0.085	ND	0.056	0.265	0.021	ND	0.284	ND	0.042	ND	0.023		0.058	ND	NT	0.194	
Outdoor	A17-83B-072203	07/22/03	Outdoor	8	Duplicate	NT	0.085	ND	0.062	0.203	0.021	ND	0.284	ND	0.042	ND	0.024		0.058	ND	NT	0.172	
Outdoor	A17-24A-072303	07/23/03	Outdoor	24	Primary	NT	0.084	ND	0.112	0.260	0.021	ND	0.279	ND	0.041	ND	0.020		0.057	ND	NT	0.191	
Outdoor	A17-24A-072403	07/24/03	Outdoor	24	Primary	NT	0.084	ND	0.154	0.339	0.021	ND	0.280	ND	0.041	ND	0.029		0.057	ND	NT	0.197	
Outdoor	A17-24A-072503	07/25/03	Outdoor	24	Primary	NT	0.022		0.282	0.385	0.021	ND	0.281	ND	0.041	ND	0.016		0.058	ND	NT	0.238	
Outdoor	A17-24A-072803	07/28/03	Outdoor	24	Primary	NT	0.071		0.098	0.100	0.021	ND	0.280	ND	0.041		0.062		0.058	ND	NT	0.243	
Outdoor	A17-81A-072903	07/29/03	Outdoor	8	Primary	NT	0.084	ND	0.267	0.078	0.021	ND	0.280	ND	0.041	ND	0.025		0.057	ND	NT	0.192	
Outdoor	A17-82A-072903	07/29/03	Outdoor	8	Primary	NT	0.084	ND	0.067	0.067	0.021	ND	0.281	ND	0.041	ND	0.017		0.058	ND	NT	0.198	
Outdoor	A17-83A-072903	07/29/03	Outdoor	8	Primary	NT	0.085	ND	0.121	0.073	0.021	ND	0.283	ND	0.041	ND	0.015		0.058	ND	NT	0.188	
Outdoor	A17-24A-073003	07/30/03	Outdoor	24	Primary	NT	0.084	ND	0.099	0.067	0.021	ND	0.281	ND	0.041	ND	0.025		0.058	ND	NT	0.108	
Outdoor	A17-24A-073103	07/31/03	Outdoor	24	Primary	NT	0.084	ND	0.346	0.134	0.021	ND	0.281	ND	0.041	ND	0.020		0.058	ND	NT	0.136	
Outdoor	A17-24B-073103	07/31/03	Outdoor	24	Duplicate	NT	0.084	ND	0.585	0.290	0.021	ND	0.281	ND	0.041	ND	0.021		0.058	ND	NT	0.159	
Outdoor	A17-24A-080103	08/01/03	Outdoor	24	Primary	NT	0.084	ND	0.515	0.435	0.021	ND	0.281	ND	0.091		0.027		0.058	ND	NT	0.210	
Outdoor	A17-24A-080403	08/04/03	Outdoor	24	Primary	NT	0.084	ND	0.113	0.073	0.021	ND	0.281	ND	0.041	ND	0.022		0.058	ND	NT	0.125	
Outdoor	A17-81A-080503	08/05/03	Outdoor	8	Primary	NT	0.083	ND	0.243	0.093	0.020	ND	0.277	ND	0.033		0.031		0.057	ND	NT	0.173	
Outdoor	A17-82A-080503	08/05/03	Outdoor	8	Primary	NT	0.084	ND	0.052	0.255	0.021	ND	0.280	ND	0.041	ND	0.016		0.057	ND	NT	0.164	
Outdoor	A17-83A-080503	08/05/03	Outdoor	8	Primary	NT	0.085	ND	0.234	0.258	0.021	ND	0.283	ND	0.014		0.020		0.058	ND	NT	0.234	
Outdoor	A17-24A-080603	08/06/03	Outdoor	24	Primary	NT	0.169	ND	0.615	1.063	0.043	ND	0.564	ND	0.083	ND	0.024		0.116	ND	NT	0.381	
Outdoor	A17-24A-080703	08/07/03	Outdoor	24	Primary	NT	0.084	ND	0.106	0.213	0.021	ND	0.282	ND	0.041	ND	0.054		0.058	ND	NT	0.182	
Outdoor	A17-24A-080803	08/08/03	Outdoor	24	Primary	NT	0.083	ND	0.146	0.099	0.020	ND	0.277	ND	0.041	ND	0.040		0.057	ND	NT	0.179	
Outdoor	A17-24A-081103	08/11/03	Outdoor	24	Primary	NT	0.084	ND	0.119	0.095	0.021	ND	0.280	ND	0.041	ND	0.036		0.058	ND	NT	0.187	
Outdoor	A17-24A-081203	08/12/03	Outdoor	24	Primary	NT	0.084	ND	0.141	0.139	0.021	ND	0.281	ND	0.041	ND	0.041		0.058	ND	NT	0.221	
Outdoor	A17-81A-081303	08/13/03	Outdoor	8	Primary	NT	0.083	ND	0.160	0.188	0.020	ND	0.278	ND	0.041	ND	0.018		0.057	ND	NT	0.179	
Outdoor	A17-82A-081303	08/13/03	Outdoor	8	Primary	NT	0.084	ND	0.037	0.211	0.021	ND	0.280	ND	0.041	ND	0.024		0.058	ND	NT	0.181	
Outdoor	A17-24A-081403	08/14/03	Outdoor	24	Primary	NT	0.084	ND	0.135	0.157	0.021	ND	0.282	ND	0.041	ND	0.032		0.058	ND	NT	0.182	
Outdoor	A17-24A-081503	08/15/03	Outdoor	24	Primary	NT	0.084	ND	0.156	0.134	0.021	ND	0.282	ND	0.041	ND	0.036		0.058	ND	NT	0.188	
Outdoor	A17-81A-081803	08/18/03	Outdoor	8	Primary	NT	0.083	ND	0.168	0.066	0.021	ND	0.278	ND	0.041	ND	0.013		0.057	ND	NT	0.180	
Outdoor	A17-82A-081803	08/18/03	Outdoor	8	Primary	NT	0.084	ND	0.029	0.055	0.021	ND	0.281	ND	0.041	ND	0.034		0.058	ND	NT	0.131	
Outdoor	A17-24A-081903	08/19/03	Outdoor	24	Primary	NT	0.084	ND	0.119	0.083	0.021	ND	0.280	ND	0.041	ND	0.023		0.057	ND	NT	0.175	
Outdoor	A17-24A-082003	08/20/03	Outdoor	24	Primary	NT	0.084	ND	0.141	0.067	0.021	ND	0.280	ND	0.041	ND	0.015		0.057	ND	NT	0.186	
Outdoor	A17-24A-082103	08/21/03	Outdoor	24	Primary	NT	0.084	ND	0.098	0.067	0.021	ND	0.280	ND	0.041	ND	0.027		0.057	ND	NT	0.192	
Outdoor	A17-24C-082103	08/21/03	Outdoor	24	Split	NT	0.155	ND	0.260	ND	0.051	ND	0.087		0.230	ND	0.078	ND	0.152	ND	0.780	ND	NT
Outdoor	A17-24A-082203	08/22/03	Outdoor	24	Primary	NT	0.084	ND	0.105	0.078	0.021	ND	0.280	ND	0.041	ND	0.031		0.057	ND	NT	0.147	
Outdoor	A17-24B-082203	08/22/03	Outdoor	24	Duplicate	NT	0.084	ND	0.112	0.078	0.021	ND	0.280	ND	0.041	ND	0.030		0.057	ND	NT	0.147	
Outdoor	A17-24A-082503	08/25/03	Outdoor	24	Primary	NT	0.082	ND	0.096	0.065	0.020	ND	0.275	ND	0.040	ND	0.019		0.056	ND	NT	0.155	
Outdoor	A17-81A-082703	08/27/03	Outdoor	8	Primary	NT	0.084	ND	0.112	0.094	0.021	ND	0.280	ND	0.041	ND	0.020		0.057	ND	NT	0.147	
Outdoor	A17-82A-082703	08/27/03	Outdoor	8	Primary	NT	0.085	ND	0.040	0.079	0.021	ND	0.283	ND	0.041	ND	0.018		0.058	ND	NT	0.137	
Outdoor	A17-24A-082803	08/28/03	Outdoor	24	Primary	NT	0.085	ND	0.078	0.129	0.021	ND	0.283	ND	0.041	ND	0.033		0.058	ND	NT	0.171	
Outdoor	A17-24A-090203	09/02/03	Outdoor	24	Primary	NT	0.084	ND	0.091	0.106	0.021	ND	0.280	ND	0.041	ND	0.026		0.057	ND	NT	0.102	
Outdoor	A17-24A-090303	09/03/03	Outdoor	24	Primary	NT	0.084	ND	0.112	0.150	0.021	ND	0.280	ND	0.041	ND	0.026		0.058	ND	NT	0.136	
Outdoor	A17-24A-090403	09/04/03	Outdoor	24	Primary	NT	0.084	ND	0.141	0.128	0.021	ND	0.281	ND	0.041	ND	0.036		0.058	ND	NT	0.153	
Outdoor	A17-81A-090503	09/05/03	Outdoor	8	Primary	NT	0.084	ND	0.078	0.061	0.021	ND	0.281	ND	0.041	ND	0.012		0.058	ND	NT	0.147	
Outdoor	A17-82A-090503	09/05/03	Outdoor	8	Primary	NT	0.084	ND	0.033	0.084	0.021	ND	0.282	ND	0.041	ND	0.022		0.058	ND	NT	0.136	
Outdoor	A17-83A-090503	09/05/03	Outdoor	8	Primary	NT	0.085	ND	0.172	0.176	0.021	ND	0.286	ND	0.042	ND	0.084		0.059	ND	NT	0.167	
Outdoor	A17-24A-090803	09/08/03	Outdoor	24	Primary	NT	0.084	ND	0.105	0.189	0.021	ND	0.280	ND	0.041	ND	0.023		0.057	ND	NT	0.147	
Outdoor	A17-24A-090903	09/09/03	Outdoor	24	Primary	NT	0.084	ND	0.069	0.084	0.021	ND	0.281	ND	0.041	ND	0.016		0.058	ND	NT	0.136	
Outdoor	A17-81A-091003	09/10/03	Outdoor	8	Primary	NT	0.083	ND	0.258	0.282	0.021	ND	0.278	ND	0.023		0.019		0.057	ND	NT	0.146	
Outdoor	A17-82A-091003	09/10/03	Outdoor	8	Primary	NT	0.083	ND	0.140	ND	0.111	0.021	ND	0.279	ND	0.041	ND	0.034		0.057	ND	NT	0.141
Outdoor	A17-83A-091003	09/10/03	Outdoor	8	Primary	NT	0.085	ND	0.649	0.243	0.021	ND	0.284	ND	0.042	ND	0.104		0.058	ND	NT	0.212	
Outdoor	A17-24A-091103	09/11/03	Outdoor	24	Primary	NT	0.083	ND	0.271	0.236	0.020	ND	0.277	ND	0.041	ND	0.057		0.021		NT	0.201	
Outdoor	A17-24A-091203	09/12/03	Outdoor	24	Primary	NT	0.082	ND	0.418	0.217	0.020	ND	0.273	ND	0.040	ND	0.048		0.022		NT	0.221	
Outdoor	A17-24A-091503	09/15/03	Outdoor	24	Primary	NT	0.084	ND	0.155	2.453	0.021	ND	0.281	ND	0.041	ND	0.019		0.058	ND	NT	0.159	
Outdoor	A17-24B-091503	09/15/03	Outdoor	24	Duplicate	NT	0.084	ND	0.197	0.095	0.040		0.281	ND	0.037		0.016		0.058	ND	NT	0.159	
Outdoor	A17-81A-091603	09/16/03	Outdoor	8	Primary	NT	0.084	ND	0.211	1.392	0.021	ND	0.280	ND	0.041	ND	0.015		0.058	ND	NT	0.158	
Outdoor	A17-82A-091603	09/16/03	Outdoor	8	Primary	NT	0.084	ND	0.040	2.122	0.021	ND	0.281	ND	0.041	ND	0.021		0.058	ND	NT	0.148	
Outdoor	A17-24A-091703	09/17/03	Outdoor	24	Primary	NT	0.084	ND	0.302	2.001	0.021	ND	0.280	ND	0.041	ND	0.074		0.057	ND	NT	0.186	
Outdoor	A17-24A-091803	09/18/03	Outdoor	24	Primary	NT	0.083	ND	1.461	3.525	0.020	ND	0.278	ND	0.015		0.106		0.057	ND	NT	0.280	
Outdoor	A17-24A-091903	09/19/03	Outdoor	24	Primary	NT	0.083	ND	0.224	2.932	0.021	ND	0.279	ND	0.041	ND	0.053		0.057	ND	NT	0.202	
Outdoor	A17-24A-092203	09/22/03	Outdoor	24	Primary	NT	0.082	ND	0.280	2.706	0.020	ND	0.273	ND	0.040	ND	0.036		0.056	ND	NT	0.187	
Outdoor	A17-24B-092303	09/23/03	Outdoor	24	Primary	NT	0.083	ND	0.091	2.436	0.021	ND	0.279	ND	0.041	ND	0.057	ND	0.057	ND	NT	0.158	
Outdoor	A17-24A-092403	09/24/03	Outdoor	24	Primary	NT	0.084	ND	0.066	2.180	0.021	ND	0.282	ND	0.041	ND	0.021		0.058	ND	NT	0.165	
Outdoor	A17-81A-092503	09/25/03	Outdoor	8	Primary	NT	0.085	ND	0.199	1.236	0.021	ND	0.283	ND	0.041	ND	0.016		0.058	ND	NT	0.154	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
Outdoor	A17-82A-092503	09/25/03	Outdoor	8	Primary	NT	0.085	ND	0.042	1.128	0.021	ND	0.284	ND	0.042	ND	0.022		0.058	ND	NT	0.155	
Outdoor	A17-24B-092603	09/26/03	Outdoor	24	Primary	NT	0.085	ND	0.085	3.596	0.021	ND	0.283	ND	0.041	ND	0.020		0.058	ND	NT	0.154	
Outdoor	A17-24A-120103	12/01/03	Outdoor	24	Primary	NT	0.020		0.137	0.085	0.021	ND	0.287	ND	0.050		0.311		0.059	ND	NT	0.156	
Outdoor	A17-81A-120303	12/03/03	Outdoor	8	Primary	NT	0.087	ND	0.182	0.092	0.021	ND	0.290	ND	0.043	ND	0.020		0.060	ND	NT	0.176	
Outdoor	A17-81B-120303	12/03/03	Outdoor	8	Duplicate	NT	0.087	ND	0.196	0.109	0.021	ND	0.290	ND	0.043	ND	0.026		0.060	ND	NT	0.181	
Outdoor	A17-82A-120303	12/03/03	Outdoor	8	Primary	NT	0.087	ND	0.327	0.224	0.021	ND	0.290	ND	0.034		0.250		0.059	ND	NT	0.210	
Outdoor	A17-24A-120903	12/09/03	Outdoor	24	Primary	NT	0.087	ND	0.138	0.069	0.021	ND	0.290	ND	0.042	ND	0.068		0.059	ND	NT	0.152	
Outdoor	A17-81A-121603	12/16/03	Outdoor	8	Primary	NT	0.089	ND	0.208	0.106	0.022	ND	0.296	ND	0.043	ND	0.036		0.061	ND	NT	0.191	
Outdoor	A17-82A-121603	12/16/03	Outdoor	8	Primary	NT	0.089	ND	0.408	0.364	0.022	ND	0.296	ND	0.043	ND	0.052		0.061	ND	NT	0.209	
Outdoor	A17-24A-121903	12/19/03	Outdoor	24	Primary	NT	0.087	ND	0.372	1.845	0.021	ND	0.291	ND	0.025		0.234		0.060	ND	NT	0.193	
Outdoor	A17-24C-121903	12/19/03	Outdoor	24	Split	NT	0.156	ND	0.423	1.326	0.209		0.232	ND	0.077	ND	0.238		0.766	ND	NT	0.211	ND
Outdoor	A17-24A-122203	12/22/03	Outdoor	24	Primary	NT	0.087	ND	0.560	2.014	0.021	ND	0.290	ND	0.042	ND	0.072		0.014		NT	0.199	
Outdoor	A17-24B-122203	12/22/03	Outdoor	24	Duplicate	NT	0.195	ND	0.553	1.669	0.049	ND	0.644	ND	0.093	ND	0.123		0.136	ND	NT	0.199	
Outdoor	A17-24A-122903	12/29/03	Outdoor	24	Primary	NT	0.086	ND	0.181	1.716	0.021	ND	0.288	ND	0.012		0.093		0.059	ND	NT	0.169	
Outdoor	A17-24A-010704	01/07/04	Outdoor	24	Primary	NT	0.086	ND	0.159	1.370	0.021	ND	0.288	ND	0.019		0.135		0.059	ND	NT	0.162	
Outdoor	A17-24A-010904	01/09/04	Outdoor	24	Primary	NT	0.016		0.238	1.773	0.021	ND	0.288	ND	0.027		0.190		0.059	ND	NT	0.157	
Outdoor	A17-81A-011304	01/13/04	Outdoor	8	Primary	NT	0.088	ND	0.405	0.315	0.022	ND	0.294	ND	0.043	ND	0.036		0.060	ND	NT	0.196	
Outdoor	A17-24A-012004	01/20/04	Outdoor	24	Primary	NT	0.087	ND	0.402	0.752	0.021	ND	0.292	ND	0.043	ND	0.085		0.060	ND	NT	0.188	
Outdoor	A17-24A-012204	01/22/04	Outdoor	24	Primary	NT	0.088	ND	0.452	0.434	0.022	ND	0.295	ND	0.043	ND	0.069		0.013		NT	0.226	
Outdoor	A17-24A-012604	01/26/04	Outdoor	24	Primary	NT	0.088	ND	0.199	0.251	0.022	ND	0.294	ND	0.043	ND	0.022		0.060	ND	NT	0.178	
Outdoor	A17-81A-012804	01/28/04	Outdoor	8	Primary	NT	0.088	ND	0.426	0.163	0.022	ND	0.293	ND	0.043	ND	0.031		0.060	ND	NT	0.166	
Outdoor	A17-83A-012804	01/28/04	Outdoor	8	Primary	NT	0.088	ND	0.631	0.221	0.022	ND	0.293	ND	0.043	ND	0.043		0.060	ND	NT	0.195	
Outdoor	A17-24A-020304	02/03/04	Outdoor	24	Primary	NT	0.087	ND	0.255	0.501	0.021	ND	0.290	ND	0.043	ND	0.033		0.060	ND	NT	0.176	
Outdoor	A17-24A-020604	02/06/04	Outdoor	24	Primary	NT	0.088	ND	0.736	6.406	0.022	ND	0.293	ND	0.043	ND	0.028		0.060	ND	NT	0.213	
Outdoor	A17-24A-021004	02/10/04	Outdoor	24	Primary	NT	0.088	ND	0.470	0.314	0.022	ND	0.293	ND	0.043	ND	0.056		0.060	ND	NT	0.177	
Outdoor	A17-24B-021004	02/10/04	Outdoor	24	Duplicate	NT	0.088	ND	0.463	0.367	0.022	ND	0.293	ND	0.043	ND	0.056		0.060	ND	NT	0.171	
Outdoor	A17-81A-021204	02/12/04	Outdoor	8	Primary	NT	0.086	ND	0.374	0.182	0.021	ND	0.287	ND	0.042	ND	0.026		0.059	ND	NT	0.180	
Outdoor	A17-82A-021204	02/12/04	Outdoor	8	Primary	NT	0.087	ND	0.327	0.294	0.021	ND	0.290	ND	0.043	ND	0.047		0.033		NT	0.187	
Outdoor	A17-83A-021204	02/12/04	Outdoor	8	Primary	NT	0.089	ND	0.535	0.277	0.022	ND	0.297	ND	0.043	ND	0.070		0.015		NT	0.215	
Outdoor	A17-83C-021204	02/12/04	Outdoor	8	Split	NT	0.151	ND	0.498	0.241	0.048	ND	0.244		0.074	ND	0.148	ND	0.739	ND	NT	0.203	ND
Outdoor	A17-24A-021804	02/18/04	Outdoor	24	Primary	NT	0.086	ND	0.130	0.206	0.021	ND	0.289	ND	0.042	ND	0.032		0.059	ND	NT	0.169	
Outdoor	A17-24A-022004	02/20/04	Outdoor	24	Primary	NT	0.087	ND	0.247	0.224	0.021	ND	0.290	ND	0.042	ND	0.029		0.013		NT	0.187	
Outdoor	A17-24A-022304	02/23/04	Outdoor	24	Primary	NT	0.086	ND	0.122	0.257	0.021	ND	0.287	ND	0.042	ND	0.014		0.059	ND	NT	0.185	
Outdoor	A17-81A-022504	02/25/04	Outdoor	8	Primary	NT	0.085	ND	0.186	0.181	0.021	ND	0.285	ND	0.042	ND	0.059	ND	0.059	ND	NT	0.178	
Outdoor	A17-24A-030204	03/02/04	Outdoor	24	Primary	NT	0.086	ND	0.123	0.228	0.021	ND	0.288	ND	0.042	ND	0.029		0.059	ND	NT	0.197	
Outdoor	A17-24B-030204	03/02/04	Outdoor	24	Duplicate	NT	0.086	ND	0.115	0.194	0.021	ND	0.288	ND	0.042	ND	0.028		0.059	ND	NT	0.186	
Outdoor	A17-24A-030404	03/04/04	Outdoor	24	Primary	NT	0.087	ND	0.181	0.282	0.021	ND	0.290	ND	0.042	ND	0.059		0.059	ND	NT	0.210	
Outdoor	A17-24A-031104	03/11/04	Outdoor	24	Primary	NT	0.085	ND	0.263	0.343	0.021	ND	0.283	ND	0.042	ND	0.042		0.058	ND	NT	0.217	
Outdoor	A17-24A-031704	03/17/04	Outdoor	24	Primary	NT	0.084	ND	0.400	0.283	0.021	ND	0.280	ND	0.041	ND	0.045		0.010		NT	0.226	
Outdoor	A17-24B-031704	03/17/04	Outdoor	24	Duplicate	NT	0.084	ND	0.519	0.355	0.021	ND	0.280	ND	0.041	ND	0.040		0.011		NT	0.282	
Outdoor	A17-81A-031904	03/19/04	Outdoor	8	Primary	NT	0.085	ND	0.142	0.151	0.021	ND	0.283	ND	0.041	ND	0.024		0.058	ND	NT	0.188	
Outdoor	A17-24A-032204	03/22/04	Outdoor	24	Primary	NT	0.086	ND	0.100	0.176	0.021	ND	0.286	ND	0.042	ND	0.012		0.059	ND	NT	0.184	
Outdoor	A17-24B-032204	03/22/04	Outdoor	24	Duplicate	NT	0.086	ND	0.100	0.165	0.021	ND	0.286	ND	0.042	ND	0.019		0.059	ND	NT	0.184	
Outdoor	A17-24A-032404	03/24/04	Outdoor	24	Primary	NT	0.086	ND	0.123	0.166	0.021	ND	0.288	ND	0.042	ND	0.036		0.059	ND	NT	0.191	
Outdoor	A17-81A-033004	03/30/04	Outdoor	8	Primary	NT	0.086	ND	0.093	0.136	0.021	ND	0.286	ND	0.042	ND	0.012		0.059	ND	NT	0.202	
Outdoor	A17-83A-033004	03/30/04	Outdoor	8	Primary	NT	0.086	ND	0.282	0.160	0.021	ND	0.288	ND	0.042	ND	0.035		0.059	ND	NT	0.239	
Outdoor	A17-24A-040104	04/01/04	Outdoor	24	Primary	NT	0.085	ND	0.093	0.153	0.021	ND	0.286	ND	0.042	ND	0.011		0.059	ND	NT	0.207	
Outdoor	A17-24A-040604	04/06/04	Outdoor	24	Primary	NT	0.086	ND	0.130	0.115	0.021	ND	0.289	ND	0.042	ND	0.024		0.059	ND	NT	0.192	
Outdoor	A17-24A-040804	04/08/04	Outdoor	24	Primary	NT	0.086	ND	0.101	0.148	0.021	ND	0.287	ND	0.042	ND	0.011		0.059	ND	NT	0.191	
Outdoor	A17-24B-040804	04/08/04	Outdoor	24	Duplicate	NT	0.086	ND	0.108	0.165	0.021	ND	0.287	ND	0.042	ND	0.035		0.059	ND	NT	0.209	
Outdoor	A17-24A-041304	04/13/04	Outdoor	24	Primary	NT	0.086	ND	0.116	0.080	0.021	ND	0.289	ND	0.042	ND	0.020		0.059	ND	NT	0.146	
Outdoor	A17-24A-041604	04/16/04	Outdoor	24	Primary	NT	0.104		0.181	0.098	0.021	ND	0.289	ND	0.042	ND	0.023		0.059	ND	NT	0.175	
Outdoor	A17-81A-041904	04/19/04	Outdoor	8	Primary	NT	0.090		0.179	0.056	0.021	ND	0.286	ND	0.042	ND	0.059	ND	0.059	ND	NT	0.156	
Outdoor	A17-82A-041904	04/19/04	Outdoor	8	Primary	NT	0.043		0.324	0.028	0.021	ND	0.287	ND	0.042	ND	0.059	ND	0.059	ND	NT	0.139	
Outdoor	A17-24A-042204	04/22/04	Outdoor	24	Primary	NT	0.034		0.515	0.130	0.021	ND	0.285	ND	0.042	ND	0.040		0.059	ND	NT	0.167	
Outdoor	A17-81A-042804	04/28/04	Outdoor	8	Primary	NT	0.066		0.174	0.088	0.020	ND	0.278	ND	0.041	ND	0.057	ND	0.057	ND	NT	0.174	
Outdoor	A17-82A-042804	04/28/04	Outdoor	8	Primary	NT	0.071		0.175	0.072	0.021	ND	0.280	ND	0.041	ND	0.032		0.057	ND	NT	0.175	
Outdoor	A17-24A-043004	04/30/04	Outdoor	24	Primary	NT	0.028		0.129	0.062	0.021	ND	0.285	ND	0.042	ND	0.020		0.059	ND	NT	0.161	
Outdoor	A17-24C-043004	04/30/04	Outdoor	24	Split	NT	0.192		0.229	ND 0.045	ND	0.043	ND	0.203	ND	0.067	ND	0.134	ND	0.669	ND	NT	0.184	ND
Outdoor	A17-24A-050304	05/03/04	Outdoor	24	Primary	NT	0.109		0.169	0.056	0.021	ND	0.281	ND	0.041	ND	0.029		0.058	ND	NT	0.148	
Outdoor	A17-24A-050504	05/05/04	Outdoor	24	Primary	NT	0.025		0.093	0.055	0.021	ND	0.285	ND	0.042	ND	0.028		0.058	ND	NT	0.149	
Outdoor	A17-24A-051104	05/11/04	Outdoor	24	Primary	NT	0.043		0.144	0.057	0.021	ND	0.286	ND	0.042	ND	0.033		0.059	ND	NT	0.173	
Outdoor	A17-81A-051304	05/13/04	Outdoor	8	Primary	NT	0.038		0.156	0.052	0.021	ND	0.282	ND	0.041	ND	0.058	ND	0.058	ND	NT	0.148	
Outdoor	A17-82A-051304	05/13/04	Outdoor	8	Primary	NT	0.085	ND	0.065	0.040	0.021	ND	0.285	ND	0.042	ND	0.011		0.059	ND	NT	0.138	
Outdoor	A17-24A-051704	05/17/04	Outdoor	24	Primary	NT	0.102		0.129	0.040	0.021	ND	0.285	ND	0.042	ND	0.058	ND	0.058	ND	NT	0.149	
Outdoor	A17-24B-051904	05/19/04	Outdoor	24	Primary	NT	0.111		0.086	0.056	0.021	ND	0.286	ND	0.042	ND	0.014		0.059	ND	NT	0.156	
Outdoor	A17-24A-060204	06/02/04	Outdoor	24	Primary	NT	0.084	ND	0.134	0.078	0.021	ND	0.081		0.041	ND	0.037		0.058	ND	NT	0.131	
Outdoor	A17-24A-060404	06/04/04	Outdoor	24	Primary	NT	0.085	ND	0.100	0.062	0.021	ND	0.285	ND	0.042	ND	0.036		0.058	ND	NT	0.132	
Outdoor	A17-24A-060804	06/08/04	Outdoor	24	Primary	NT	0.123		0.078	0.047	0.021	ND	0.284	ND	0.042	ND	0.016		0.058	ND	NT	0.149	
Outdoor	A17-24A-061004	06/10/04	Outdoor	24	Primary	NT	0.094		0.114	0.062	0.021	ND	0.285	ND	0.042	ND	0.035		0.058	ND	NT	0.155	
Outdoor	A17-24A-061504	06/15/04	Outdoor	24	Primary	NT	0.087		0.263	0.104	0.020	ND	0.276	ND	0.041	ND	0.038		0.057	ND	NT	0.190	
Outdoor	A17-24A-061704	06/17/04	Outdoor	24	Primary	NT	0.088		0.119	0.083	0.021	ND	0.280	ND	0.041	ND	0.123		0.057	ND	NT	0.186	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
Outdoor	A17-24A-062104	06/21/04	Outdoor	24	Primary	NT	0.031		0.100		0.047		0.021	ND	0.284	ND	0.042	ND	0.031		0.058	ND	NT	0.149	
Outdoor	A17-24A-062304	06/23/04	Outdoor	24	Primary	NT	0.157		0.128		0.056		0.021	ND	0.284	ND	0.042	ND	0.058	ND	0.058	ND	NT	0.206	
Outdoor	A17-24C-062304	06/23/04	Outdoor	24	Split	NT	0.136	ND	0.484		3.721		0.043	ND	0.366		0.067	ND	0.133	ND	0.666	ND	NT	0.183	ND
Outdoor	A17-24A-090704	09/07/04	Outdoor	24	Primary	NT	NT		0.391		0.049	ND	0.046	ND	NT		NT		0.144	ND	NT		NT	NT	
Outdoor	A17-24A-090904	09/09/04	Outdoor	24	Primary	NT	NT		0.265	ND	0.052	ND	0.050	ND	NT		NT		0.155	ND	NT		NT	NT	
Outdoor	A17-24A-091404	09/14/04	Outdoor	24	Primary	NT	NT		0.281	ND	0.317		0.053	ND	NT		NT		0.164	ND	NT		NT	NT	
Outdoor	A17-24A-092104	09/21/04	Outdoor	24	Primary	NT	NT		0.535		0.043	ND	0.042	ND	NT		NT		0.128	ND	NT		NT	NT	
Outdoor	A17-24A-092304	09/23/04	Outdoor	24	Primary	NT	NT		0.690		0.353		0.039	ND	NT		NT		0.122	ND	NT		NT	NT	
Outdoor	A17-24A-092804	09/28/04	Outdoor	24	Primary	NT	NT		0.240	ND	0.240		0.958		NT		NT		0.140	ND	NT		NT	NT	
Outdoor	A17-24A-093004	09/30/04	Outdoor	24	Primary	NT	NT		0.241	ND	0.048	ND	1.069		NT		NT		0.182		NT		NT	NT	
Outdoor	A17-24A-100504	10/05/04	Outdoor	24	Primary	NT	NT		2.352		0.231		0.086		NT		NT		0.142	ND	NT		NT	NT	
Outdoor	A17-24A-100704	10/07/04	Outdoor	24	Primary	NT	NT		0.235	ND	0.231		0.153		NT		NT		0.138	ND	NT		NT	NT	
Outdoor	A17-24A-101204	10/12/04	Outdoor	24	Primary	NT	NT		0.452		0.247		0.047	ND	NT		NT		0.146	ND	NT		NT	NT	
Outdoor	A17-24B-101204	10/12/04	Outdoor	24	Duplicate	NT	NT		0.507		0.269		0.045	ND	NT		NT		0.187		NT		NT	NT	
Outdoor	A17-24A-101404	10/14/04	Outdoor	24	Primary	NT	NT		0.766		0.320		0.223		NT		NT		0.142	ND	NT		NT	NT	
Outdoor	A17-24A-101904	10/19/04	Outdoor	24	Primary	NT	NT		0.240	ND	0.048	ND	0.208		NT		NT		0.140	ND	NT		NT	NT	
Outdoor	A17-24A-102104	10/21/04	Outdoor	24	Primary	NT	NT		0.372		0.048	ND	0.205		NT		NT		0.222		NT		NT	NT	
Outdoor	A17-24A-102604	10/26/04	Outdoor	24	Primary	NT	NT		0.314		0.203		0.043	ND	NT		NT		0.138	ND	NT		NT	NT	
Outdoor	A17-24A-102804	10/28/04	Outdoor	24	Primary	NT	NT		0.275		0.189		0.046	ND	NT		NT		0.161		NT		NT	NT	
Outdoor	N210-A-24A-060704	06/07/04	Outdoor	24	Primary	NT	0.076		0.078		0.055		0.021	ND	0.282	ND	0.041	ND	0.014		0.058	ND	NT	0.148	
Outdoor	N210-A-24A-060804	06/08/04	Outdoor	24	Primary	NT	0.178		0.100		0.068		0.021	ND	0.284	ND	0.042	ND	0.022		0.058	ND	NT	0.178	
Outdoor	N210-A-24A-060904	06/09/04	Outdoor	24	Primary	NT	0.106		0.100		0.042		0.021	ND	0.284	ND	0.042	ND	0.022		0.058	ND	NT	0.149	
Outdoor	N210-A-24A-061104	06/11/04	Outdoor	24	Primary	NT	0.115		0.107		0.068		0.021	ND	0.284	ND	0.042	ND	0.058	ND	0.058	ND	NT	0.155	
Outdoor	N210-A-24A-062104	06/21/04	Outdoor	24	Primary	NT	0.036		0.092		0.048		0.021	ND	0.284	ND	0.042	ND	0.022		0.058	ND	NT	0.149	
Outdoor	N210-A-24A-062204	06/22/04	Outdoor	24	Primary	NT	0.110		0.114		0.062		0.021	ND	0.283	ND	0.042	ND	0.058	ND	0.058	ND	NT	0.154	
Outdoor	N210-A-24A-062404	06/24/04	Outdoor	24	Primary	NT	0.059		0.085		0.079		0.021	ND	0.284	ND	0.042	ND	0.050		0.058	ND	NT	0.166	
Outdoor	N210-A-24A-062504	06/25/04	Outdoor	24	Primary	NT	0.101		0.092		0.078		0.021	ND	0.282	ND	0.041	ND	0.054		0.058	ND	NT	0.148	
Outdoor	A210-24A-090704	09/07/04	Outdoor	24	Primary	NT	NT		0.315		2.658		0.049	ND	NT		NT		0.148	ND	NT		NT	NT	
Outdoor	A210-1-24A-090904	09/09/04	Outdoor	24	Primary	NT	NT		0.251	ND	0.937		0.047	ND	NT		NT		0.146	ND	NT		NT	NT	
Outdoor	A210-24B-090904	09/09/04	Outdoor	24	Duplicate	NT	NT		0.376		1.102		0.047	ND	NT		NT		0.142	ND	NT		NT	NT	
Outdoor	A210-24A-091404	09/14/04	Outdoor	24	Primary	NT	NT		0.225		1.167		0.042	ND	NT		NT		0.160		NT		NT	NT	
Outdoor	A210-1-24A-091604	09/16/04	Outdoor	24	Primary	NT	NT		0.237	ND	1.103		0.045	ND	NT		NT		0.138	ND	NT		NT	NT	
Outdoor	A210-24A-071205	07/12/05	Outdoor	24	Primary	NT	NT		0.192	ND	0.499		0.038	ND	NT		NT		0.112	ND	NT		NT	NT	
Outdoor	A210-24A-071405	07/14/05	Outdoor	24	Primary	NT	NT		5.106		1.207		0.180		NT		NT		0.120	ND	NT		NT	NT	
Outdoor	A210-24A-071905	07/19/05	Outdoor	24	Primary	NT	NT		0.474		0.512		0.045	ND	NT		NT		0.136	ND	NT		NT	NT	
Outdoor	A210-24A-072105	07/21/05	Outdoor	24	Primary	NT	NT		0.221	ND	0.467		0.040	ND	NT		NT		0.129	ND	NT		NT	NT	
Outdoor	A210-24A-092705	09/27/05	Outdoor	24	Primary	NT	NT		0.994		0.281		0.043	ND	NT		NT		0.137	ND	NT		NT	NT	
Outdoor	A210-24A-092905	09/29/05	Outdoor	24	Primary	NT	NT		0.835		0.413		0.042	ND	NT		NT		0.130	ND	NT		NT	NT	
Outdoor	A210-24A 010306	01/03/06	Outdoor	24	Primary	NT	NT		0.424		0.043	ND	0.041	ND	NT		NT		0.128	ND	NT		NT	NT	
Outdoor	A210-24A 010506	01/05/06	Outdoor	24	Primary	NT	NT		0.675		0.232		0.050	ND	NT		NT		0.150	ND	NT		NT	NT	
Outdoor	A243-24A-080403	08/04/03	Outdoor	24	Primary	NT	0.084	ND	0.211		0.047		0.021	ND	0.281	ND	0.041	ND	0.012		0.058	ND	NT	0.142	
Outdoor	A243-24B-080403	08/04/03	Outdoor	24	Duplicate	NT	0.084	ND	0.218		0.044		0.021	ND	0.281	ND	0.041	ND	0.058	ND	0.058	ND	NT	0.113	
Outdoor	A243-24A-080503	08/05/03	Outdoor	24	Primary	NT	0.084	ND	0.183		0.183		0.021	ND	0.280	ND	0.041	ND	0.014		0.057	ND	NT	0.164	
Outdoor	A243-24A-080803	08/08/03	Outdoor	24	Primary	NT	0.084	ND	0.190		0.067		0.021	ND	0.281	ND	0.041	ND	0.022		0.058	ND	NT	0.176	
Outdoor	A243-24A-030904	03/09/04	Outdoor	24	Primary	NT	0.085	ND	0.462		0.411		0.021	ND	0.284	ND	0.042	ND	0.032		0.058	ND	NT	0.235	
Outdoor	A243-24A-031004	03/10/04	Outdoor	24	Primary	NT	0.084	ND	0.296		0.502		0.021	ND	0.281	ND	0.041	ND	0.040		0.016		NT	0.244	
Outdoor	A243-24A-031104	03/11/04	Outdoor	24	Primary	NT	0.085	ND	0.369		0.450		0.021	ND	0.283	ND	0.042	ND	0.042		0.010		NT	0.223	
Outdoor	A243-24A-031204	03/12/04	Outdoor	24	Primary	NT	0.085	ND	0.313		0.372		0.021	ND	0.284	ND	0.042	ND	0.050		0.058	ND	NT	0.326	
Outdoor	MEW-1-24A-062304	06/23/04	Outdoor	24	Primary	NT	0.081		0.093		0.147		0.010	ND	0.142	ND	0.021	ND	0.408		0.029	ND	NT	0.143	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA	PCE		TCE		VC		1,2-DCB	1,1-DCE	cis-1,2-DCE		trans-1,2-DCE	Freon 113	1,1,1-TCA
501 Ellis Street	V-3D	04/30/03	Indoor	24	Duplicate	NT	NT	NT		0.220		0.043	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-2 EPA	04/30/03	Indoor	24	Duplicate-EPA	NT	NT	NT		0.380		0.140	ND	NT	NT	0.220	ND	NT	NT	NT
501 Ellis Street	V-1	04/30/03	Indoor	24	Primary	NT	NT	NT		0.460		0.045	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-2	04/30/03	Indoor	24	Primary	NT	NT	NT		0.370		0.045	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-3	04/30/03	Indoor	24	Primary	NT	NT	NT		0.210		0.048	ND	NT	NT	0.150	ND	NT	NT	NT
501 Ellis Street	V-4	04/30/03	Indoor	24	Primary	NT	NT	NT		0.200		0.043	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-1	05/01/03	Indoor	24	Primary	NT	NT	NT		0.710		0.042	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-2	05/01/03	Indoor	24	Primary	NT	NT	NT		1.700		0.041	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-3	05/01/03	Indoor	24	Primary	NT	NT	NT		0.660		0.044	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-4	05/01/03	Indoor	24	Primary	NT	NT	NT		0.600		0.045	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-2 EPA	09/24/03	Indoor	24	Duplicate-EPA	NT	NT	0.320		4.500		0.140	ND	NT	NT	0.220	ND	NT	NT	NT
501 Ellis Street	V-1	09/24/03	Indoor	24	Primary	NT	NT	0.220	ND	0.820		0.042	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-1D	09/24/03	Indoor	24	Duplicate	NT	NT	0.220	ND	0.890		0.041	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-2	09/24/03	Indoor	24	Primary	NT	NT	0.340		4.900		0.038	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-3	09/24/03	Indoor	24	Primary	NT	NT	0.260	ND	2.000		0.050	ND	NT	NT	0.150	ND	NT	NT	NT
501 Ellis Street	V-4	09/24/03	Indoor	24	Primary	NT	NT	0.430		1.700		0.038	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-1	10/02/03	Indoor	24	Primary	NT	NT	0.180	ND	0.900		0.035	ND	NT	NT	0.110	ND	NT	NT	NT
501 Ellis Street	V-2	10/02/03	Indoor	10	Primary	NT	NT	0.370		5.000		0.044	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-2	10/02/03	Indoor	24	Primary	NT	NT	0.380		5.800		0.039	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-3	10/02/03	Indoor	24	Primary	NT	NT	0.200		2.500		0.038	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-4	10/02/03	Indoor	24	Primary	NT	NT	0.210	ND	1.600		0.040	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-2D	01/15/04	Indoor	10	Duplicate	NT	NT	0.230	ND	0.190		0.043	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-2	01/15/04	Indoor	10	Primary	NT	NT	0.240	ND	0.190		0.045	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-3	01/15/04	Indoor	10	Primary	NT	NT	0.270		0.240		0.044	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-4	01/15/04	Indoor	10	Primary	NT	NT	0.220	ND	0.200		0.042	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-2 EPA	12/15/04	Indoor	10	Duplicate-EPA	NT	NT	0.450	ND	0.350	ND	0.170	ND	NT	NT	0.260	ND	NT	NT	NT
501 Ellis Street	V-3 EPA	12/15/04	Indoor	10	Duplicate-EPA	NT	NT	0.680	ND	0.540	ND	0.260	ND	NT	NT	0.400	ND	NT	NT	NT
501 Ellis Street	V-1	12/15/04	Indoor	10	Primary	NT	NT	0.500		0.190	ND	0.046	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-2	12/15/04	Indoor	10	Primary	NT	NT	0.660		0.190	ND	0.045	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-3	12/15/04	Indoor	10	Primary	NT	NT	1.500		11.000		0.036	ND	NT	NT	0.110	ND	NT	NT	NT
501 Ellis Street	V-4	12/15/04	Indoor	10	Primary	NT	NT	0.230	ND	0.180	ND	0.044	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-3D	01/26/05	Indoor	10	Duplicate	NT	NT	0.240	ND	0.190	ND	0.046	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-3 EPA	01/26/05	Indoor	10	Duplicate-EPA	NT	NT	0.340	ND	0.340	ND	0.130	ND	NT	NT	0.200	ND	NT	NT	NT
501 Ellis Street	V-3 EPA	01/26/05	Indoor	10	Duplicate-EPA	NT	NT	0.180	J	0.340	ND	0.130	ND	NT	NT	0.200	ND	NT	NT	NT
501 Ellis Street	V-3	01/26/05	Indoor	10	Primary	NT	NT	0.240	ND	0.190	ND	0.046	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-5 EPA	04/30/03	Outdoor	24	Duplicate-EPA	NT	NT	NT		0.290	ND	0.140	ND	NT	NT	0.220	ND	NT	NT	NT
501 Ellis Street	V-5	04/30/03	Outdoor	24	Primary	NT	NT	NT		0.070	J	0.040	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-3	01/26/05	Indoor	10	Primary	NT	NT	0.240	ND	0.190	ND	0.046	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-5 EPA	04/30/03	Outdoor	24	Duplicate-EPA	NT	NT	NT		0.290	ND	0.140	ND	NT	NT	0.220	ND	NT	NT	NT
501 Ellis Street	V-5	04/30/03	Outdoor	24	Primary	NT	NT	NT		0.070	J	0.040	ND	NT	NT	0.120	ND	NT	NT	NT
501 Ellis Street	V-6	04/30/03	Outdoor	24	Primary	NT	NT	NT		0.074	J	0.042	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-5	05/01/03	Outdoor	24	Primary	NT	NT	NT		0.058	J	0.043	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-6	05/01/03	Outdoor	24	Primary	NT	NT	NT		0.072	J	0.044	ND	NT	NT	0.025	J	NT	NT	NT
501 Ellis Street	V-5	09/24/03	Outdoor	24	Primary	NT	NT	0.180	ND	0.150	ND	0.035	ND	NT	NT	0.110	ND	NT	NT	NT
501 Ellis Street	V-5	10/02/03	Outdoor	10	Primary	NT	NT	0.250	ND	0.200	ND	0.046	ND	NT	NT	0.140	ND	NT	NT	NT
501 Ellis Street	V-5	10/02/03	Outdoor	24	Primary	NT	NT	0.620		0.150	ND	0.035	ND	NT	NT	0.110	ND	NT	NT	NT
501 Ellis Street	V-5	01/15/04	Outdoor	10	Primary	NT	NT	0.220	ND	0.180	ND	0.042	ND	NT	NT	0.130	ND	NT	NT	NT
501 Ellis Street	V-5	12/15/04	Outdoor	10	Primary	NT	NT	0.250	ND	0.200	ND	0.048	ND	NT	NT	0.150	ND	NT	NT	NT
Indoor					Number of Samples	0	0	25		35		35		0	0	35		0	0	0
					Number of Detects	0	0	0		26		0		0	0	0		0	0	0
					Minimum Detection	0	0	0.18		0.19		0		0	0	0		0	0	0
					Maximum Detection	0	0	1.5		11		0		0	0	0		0	0	0
Outdoor					Number of Samples	0	0	5		10		10		0	0	10		0	0	0
					Number of Detects	0	0	1		4		0		0	0	1		0	0	0
					Minimum Detection	0	0	0.62		0.058		0		0	0	0.025		0	0	0
					Maximum Detection	0	0	0.62		0.074		0		0	0	0.025		0	0	0

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
350 Ellis St., Bldg. E	350AMB1	05/10/03	Indoor	10	Primary	0.220		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.690		0.310	
350 Ellis St., Bldg. E	350AMB2	05/10/03	Indoor	10	Primary	0.180		0.140	ND	0.250		0.440		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.760		0.320	
350 Ellis St., Bldg. E	350AMB3	05/10/03	Indoor	10	Primary	0.190		0.140	ND	0.260		0.710		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.830		0.330	
350 Ellis St., Bldg. E	350AMB4	05/10/03	Indoor	10	Primary	0.200		0.140	ND	0.320		0.770		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.790		0.350	
350 Ellis St., Bldg. E	350AMB3	05/17/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.190	J	0.330		0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
350 Ellis St., Bldg. E	350AMB1	05/17/03	Indoor	10	Primary	0.270		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.720		0.190	J
350 Ellis St., Bldg. E	350AMB2	05/17/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.220		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
350 Ellis St., Bldg. E	350AMB3	05/17/03	Indoor	10	Primary	0.180		0.140	ND	0.230	ND	0.460		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.550		0.250	
350 Ellis St., Bldg. E	350AMB4	05/17/03	Indoor	10	Primary	0.200		0.140	ND	0.240		0.420		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.540		0.190	ND
350 Ellis St., Bldg. E	350AMB2D	09/27/03	Indoor	10	Duplicate	0.200		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.520		0.190	ND
350 Ellis St., Bldg. E	350AMB1	09/27/03	Indoor	10	Primary	0.170		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.690		0.190	ND
350 Ellis St., Bldg. E	350AMB2	09/27/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.670		0.190	ND
350 Ellis St., Bldg. E	350AMB3	09/27/03	Indoor	10	Primary	0.510		0.140	ND	0.230	ND	0.640		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.590		0.190	ND
350 Ellis St., Bldg. E	350AMB4	09/27/03	Indoor	10	Primary	0.170	J	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.570		0.190	ND
350 Ellis St., Bldg. E	350AMB4	10/04/03	Indoor	10	Duplicate-EPA	0.230	J	0.110	ND	0.190	ND	0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.660		0.150	J
350 Ellis St., Bldg. E	350AMB1	10/04/03	Indoor	10	Primary	0.190		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.640		0.190	ND
350 Ellis St., Bldg. E	350AMB2	10/04/03	Indoor	10	Primary	0.720		0.140	ND	0.330		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.640		0.190	ND
350 Ellis St., Bldg. E	350AMB3	10/04/03	Indoor	10	Primary	0.900		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.240		0.072	ND	0.140	ND	0.720	ND	0.550		0.200	ND
350 Ellis St., Bldg. E	350AMB4	10/04/03	Indoor	10	Primary	0.200		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.550		0.200	ND
350 Ellis St., Bldg. E	350HVAC1	05/10/03	Outdoor	10	Duplicate	0.160	ND	0.130	ND	1.300		0.550		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.480		0.220	
350 Ellis St., Bldg. E	350HVAC1	05/10/03	Outdoor	10	Primary	0.160	ND	0.130	ND	1.300		0.580		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.670		0.230	
350 Ellis St., Bldg. E	350HVAC2	05/10/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.310		0.660		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.770		0.190	ND
350 Ellis St., Bldg. E	350HVAC1	05/17/03	Outdoor	10	Primary	0.420		0.140	ND	3.200		18.000		0.050		0.200	ND	0.068	ND	0.270		0.680	ND	0.480		2.300	J
350 Ellis St., Bldg. E	350HVAC2	05/17/03	Outdoor	10	Primary	0.200		0.150	ND	0.310		0.440		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.670		0.200	ND
350 Ellis St., Bldg. E	350HVAC1	07/08/03	Outdoor	10	Primary	0.210		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.770		0.200	ND
350 Ellis St., Bldg. E	350HVAC1	09/27/03	Outdoor	10	Primary	0.170		0.140	ND	0.480		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.730		0.190	ND
350 Ellis St., Bldg. E	350HVAC1	10/04/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.760		0.190	ND
350 Ellis St., Bldg. E	350HVAC1	10/04/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.700		0.190	ND
350 Ellis St., Bldg. E	350HVAC2	09/26/06	Outdoor	10	Duplicate-EPA	0.120	J	0.200	ND	1.500		0.220	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.710		0.270	ND
350 Ellis St., Bldg. E	350HVAC2	09/26/06	Outdoor	10	Primary	0.170		0.110	ND	0.260		0.150	ND	0.046		0.170	ND	0.056	ND	0.110	ND	0.560	ND	0.560		0.150	ND
					Number of Samples	19		19		19		19		19		19		19		19		17		19		19	
	Indoor-Weekend				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
					Minimum Detection	0.17		0		0.19		0.22		0		0.24		0		0		0		0.52		0.15	
					Maximum Detection	0.9		0		0.33		0.77		0		0.24		0		0		0		0.83		0.35	
					Number of Samples	11		11		11		11		11		11		11		11		10		11		11	
	Outdoor				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
					Minimum Detection	0.12		0		0.26		0.22		0.046		0		0		0.27		0		0.48		0.22	
					Maximum Detection	0.42		0		3.2		18		0.05		0		0		0.27		0		0.77		2.3	
350 Ellis St., Bldg. E	350AMB1	09/26/06	Indoor	10	Primary	0.210		0.130	ND	0.240		0.170	ND	0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.590		0.170	ND
350 Ellis St., Bldg. E	350AMB2	09/26/06	Indoor	10	Primary	0.350		0.120	ND	0.220		0.160	ND	0.038	ND	0.018	ND	0.059	ND	0.120	ND	0.590	ND	0.600		0.160	ND
350 Ellis St., Bldg. E	350AMB3	09/26/06	Indoor	10	Primary	0.710		0.130	ND	0.310		0.170	ND	0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.570		0.170	ND
350 Ellis St., Bldg. E	350AMB4	09/26/06	Indoor	10	Primary	0.240		0.120	ND	0.230		0.170	ND	0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.550		0.170	ND
					Number of Samples	4		4		4		4		4		4		4		4		4		4		4	
	Indoor-Weekday				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
					Minimum Detection	0.21		0		0.22		0		0		0		0		0		0		0.55		0	
					Maximum Detection	0.71		0		0.31		0		0		0		0		0		0		0.6		0	
370 Ellis St., Bldg. A	370AMB1A	05/10/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.600		1.200		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.610		0.210	
370 Ellis St., Bldg. A	370AMB2A	05/10/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.940		0.580		0.048	ND	0.230	ND	0.075	ND	0.260		0.750	ND	0.520		0.210	ND
370 Ellis St., Bldg. A	370AMB3A	05/10/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.540		0.920		0.048	ND	0.230	ND	0.075	ND	0.150	ND	0.750	ND	0.560		0.210	ND
370 Ellis St., Bldg. A	370AMB4A	05/10/03	Indoor	10	Primary	0.190		0.150	ND	1.200		3.700		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.880		0.340	
370 Ellis St., Bldg. A	370AMB1A	05/17/03	Indoor	10	Primary	0.180		0.140	ND	0.620		1.400		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.470		0.300	
370 Ellis St., Bldg. A	370AMB2A	05/17/03	Indoor	10	Primary	0.190		0.140	ND	0.440		0.620		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.310	
370 Ellis St., Bldg. A	370AMB3A	05/17/03	Indoor	10	Primary	0.210		0.140	ND	0.580		1.200		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.360	
370 Ellis St., Bldg. A	370AMB4A	05/17/03	Indoor	10	Primary	0.250		0.140	ND	1.100		2.700		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.930		0.320	
370 Ellis St., Bldg. A	370AMB1A	09/27/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.490		0.650		0.045	ND	0.210	ND	0.070	ND	0.180		0.700	ND	0.700		0.190	ND
370 Ellis St., Bldg. A	370AMB3A	09/27/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.320		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.740		0.190	ND
370 Ellis St., Bldg. A	370AMB4AD	09/27/03	Indoor	10	Duplicate	0.200		0.140	ND	0.910		3.200		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.900		0.310	
370 Ellis St., Bldg. A	370AMB3A	09/27/03	Indoor	10	Duplicate-EPA	0.130	J	0.110	ND	0.230	J	0.380		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.690		0.150	J
370 Ellis St., Bldg. A	370AMB1A	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.460		0.630		0.045	ND	0.210	ND	0.070	ND	0.180		0.700	ND	0.640		0.190	ND
370 Ellis St., Bldg. A	370AMB2A	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.220		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.630		0.190	ND
370 Ellis St., Bldg. A	370AMB3A	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.330		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.770		0.190	ND
370 Ellis St., Bldg. A	370AMB4A	09/27/03	Indoor	10	Primary	0.180		0.140	ND	0.820		2.600		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.750		0.280	
370 Ellis St., Bldg. A	370AMB4A	10/04/03	Indoor	10	Duplicate-EPA	0.230	J	0.110	ND	1.800		0.640		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.920		0.280	J
370 Ellis St., Bldg. A	370AMB1A	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240		0.270		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
370 Ellis St., Bldg. A	370AMB2A	10/04/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.720		0.200	ND

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
370 Ellis St., Bldg. A	370AMB3A	10/04/03	Indoor	10	Primary	0.190		0.140	ND	0.880		1.900		0.044	ND	0.210	ND	0.069	ND	0.200		0.690	ND	0.640		0.190	ND
370 Ellis St., Bldg. A	370AMB4A	10/04/03	Indoor	10	Primary	0.220		0.130	ND	1.500		0.470		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.620		0.270	
370 Ellis St., Bldg. A	370HVAC1A	05/10/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.780		0.310	
370 Ellis St., Bldg. A	370HVAC2A	05/10/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.820		0.280	
370 Ellis St., Bldg. A	370HVAC1A	05/17/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
370 Ellis St., Bldg. A	370HVAC2A	05/17/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.290		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.540		0.200	ND
370 Ellis St., Bldg. A	370HVAC1A	09/26/06	Outdoor	10	Primary	0.160		0.130	ND	0.210	J	0.170	ND	0.089		NT		0.064	ND	0.130	ND	0.640	ND	0.570		0.180	ND
370 Ellis St., Bldg. A	370HVAC2A	09/26/06	Outdoor	10	Primary	0.150	ND	0.120	ND	0.210	ND	0.160	ND	0.170		0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.540		0.160	ND
	Indoor - Weekend				Number of Samples	21		21		21		21		21		21		21		21		19		21		21	
					Number of Detects	11		0		17		20		0		0		0		4		0		19		11	
					Minimum Detection	0.13		0		0.23		0.22		0		0		0		0.18		0		0.47		0.15	
					Maximum Detection	0.25		0		1.8		3.7		0		0		0		0.26		0		0.93		0.36	
	Outdoor				Number of Samples	6		6		6		6		6		5		6		6		6		6		6	
					Number of Detects	1		0		1		1		2		0		0		0		0		6		2	
					Minimum Detection	0.16		0		0.21		0.29		0.089		0		0		0		0		0.54		0.28	
					Maximum Detection	0.16		0		0.21		0.29		0.17		0		0		0		0		0.82		0.31	
370 Ellis St., Bldg. A	370AMB4A	11/13/03	Indoor	10	Primary	0.320		0.660		7.600		0.450		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	1.000		0.300	
370 Ellis St., Bldg. A	370AMB1A	09/26/06	Indoor	10	Primary	0.220		0.120	ND	0.260		0.320		0.039	ND	0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.730		0.160	ND
370 Ellis St., Bldg. A	370AMB2A	09/26/06	Indoor	10	Primary	0.210		0.120	ND	0.210		0.480		0.038	ND	0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.730		0.160	ND
370 Ellis St., Bldg. A	370AMB3A (D)	09/26/06	Indoor	10	Duplicate	0.200		0.120	ND	0.220		0.510		0.038	ND	0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.710		0.160	ND
370 Ellis St., Bldg. A	370AMB3A	09/26/06	Indoor	10	Duplicate-EPA	0.190	J	0.200	ND	0.620		0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.730		0.270	ND
370 Ellis St., Bldg. A	370AMB3A	09/26/06	Indoor	10	Primary	0.200		0.130	ND	0.220	ND	0.490		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.690		0.180	ND
370 Ellis St., Bldg. A	370AMB4A	09/26/06	Indoor	10	Duplicate-EPA	0.240		0.200	ND	0.500		0.350		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.710		0.270	ND
370 Ellis St., Bldg. A	370AMB4A	09/26/06	Indoor	10	Primary	0.340		0.120	ND	0.300		0.340		0.038	ND	0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.650		0.160	ND
	Indoor - weekday				Number of Samples	8		8		8		8		8		8		8		8		6		8		8	
					Number of Detects	8		1		7		8		0		0		0		0		0		8		1	
					Minimum Detection	0.19		0.66		0.21		0.32		0		0		0		0		0		0.65		0.3	
					Maximum Detection	0.34		0.66		7.6		0.59		0		0		0		0		0		1		0.3	
370 Ellis St., Bldg. B	370AMB4BD	05/10/03	Indoor	10	Duplicate	0.180	ND	0.150	ND	0.300		2.500		0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.500		0.200	ND
370 Ellis St., Bldg. B	370AMB1B	05/10/03	Indoor	10	Duplicate-EPA	8.000	ND	6.600	ND	0.370	ND	0.400		0.140	ND	9.800	ND	0.220	ND	0.220	ND	NT		18.000	ND	8.900	ND
370 Ellis St., Bldg. B	370AMB1B	05/10/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.550		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.480		0.200	ND
370 Ellis St., Bldg. B	370AMB2B	05/10/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.230	ND	1.500		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.480		0.180	ND
370 Ellis St., Bldg. B	370AMB3B	05/10/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250		1.500		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.530		0.200	ND
370 Ellis St., Bldg. B	370AMB4B	05/10/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.450		2.700		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.510		0.200	
370 Ellis St., Bldg. B	370AMB4B	05/17/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.270		1.300		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.540		0.200	
370 Ellis St., Bldg. B	370AMB4B	05/17/03	Indoor	10	Duplicate-EPA	6.900	ND	5.700	ND	0.410	J	3.500		0.180	ND	8.500	ND	0.290	ND	0.150	J	NT		11.000	ND	7.700	ND
370 Ellis St., Bldg. B	370AMB1B	05/17/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.790		0.045	ND	0.370		0.070	ND	0.140	ND	0.700	ND	0.610		0.190	ND
370 Ellis St., Bldg. B	370AMB2B	05/17/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	1.500		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.640		0.200	
370 Ellis St., Bldg. B	370AMB3B	05/17/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.900		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	J
370 Ellis St., Bldg. B	370AMB4B	05/17/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.270		1.400		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.540		0.200	
370 Ellis St., Bldg. B	370AMB4B	09/27/03	Indoor	10	Duplicate-EPA	0.300		0.110	ND	0.440		7.600		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.650		0.170	J
370 Ellis St., Bldg. B	370AMB1B	09/27/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	5.000		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.580		0.200	ND
370 Ellis St., Bldg. B	370AMB2B	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	4.000		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.650		0.190	ND
370 Ellis St., Bldg. B	370AMB3B	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	3.000		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.690		0.190	ND
370 Ellis St., Bldg. B	370AMB4B	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.910		8.000		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.680		0.190	ND
370 Ellis St., Bldg. B	370AMB2B	10/04/03	Indoor	10	Duplicate-EPA	0.150	J	0.110	ND	0.190	ND	0.160	J	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.700		0.160	J
370 Ellis St., Bldg. B	370AMB4B	10/04/03	Indoor	10	Duplicate-EPA	0.180	J	0.110	ND	0.360		0.820		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.690		0.180	J
370 Ellis St., Bldg. B	370AMB1B	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.460		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.290		0.190	ND
370 Ellis St., Bldg. B	370AMB2B	10/04/03	Indoor	10	Primary	0.180	ND	0.150	ND	4.000		0.200		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.530		0.200	ND
370 Ellis St., Bldg. B	370AMB3B	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.340		0.460		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.400		0.190	ND
370 Ellis St., Bldg. B	370AMB4B	10/04/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.270		0.520		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.520		0.200	ND
370 Ellis St., Bldg. B	370HVAC1B	05/10/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.280	ND	0.260	
370 Ellis St., Bldg. B	370HVAC2B	05/10/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.260	
370 Ellis St., Bldg. B	370HVAC1B	05/17/03	Outdoor	10	Primary	0.240		0.150	ND	0.250	ND	0.270		0.048	ND	0.870		0.074	ND	0.150	ND	0.740	ND	0.740		0.250	
370 Ellis St., Bldg. B	370HVAC2B	05/17/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.660		0.220	
370 Ellis St., Bldg. B	370HVAC1B	09/27/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	2.000		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.610		0.190	ND

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
370 Ellis St., Bldg. B	370HVAC1BD	10/04/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.270		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.190	ND
370 Ellis St., Bldg. B	370HVAC1B	10/04/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.310		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.570		0.200	ND
370 Ellis St., Bldg. B	370HVAC1B	11/13/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.730		0.190	ND
370 Ellis St., Bldg. B	370HVAC1A	09/26/06	Outdoor	10	Primary	NT		NT		NT		NT		NT		0.190	ND	NT		NT		NT		NT		NT	
370 Ellis St., Bldg. B	370HVAC1B	09/26/06	Outdoor	10	Primary	0.150		0.120	ND	0.210	ND	0.170	ND	0.079		0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.570		0.170	ND
370 Ellis St., Bldg. B	370HVAC2B	09/26/06	Outdoor	10	Primary	0.170		0.120	ND	0.200		0.160	ND	0.180		0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.600		0.160	ND
					Number of Samples	23		23		23		23		23		23		23		23		18		23		23	
	Indoor - Weekend				Number of Detects	3		0		12		23		0		1		0		1		0		21		8	
					Minimum Detection	0.15		0		0.25		0.16		0		0.37		0		0.15		0		0.29		0.16	
					Maximum Detection	0.3		0		4		8		0		0.37		0		0.15		0		0.7		0.2	
					Number of Samples	10		10		10		10		10		11		10		10		10		10		10	
	Outdoor				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
					Minimum Detection	0.15		0		0.2		0.27		0.079		0.87		0		0		0		0.56		0.22	
					Maximum Detection	0.24		0		0.2		2		0.18		0.87		0		0		0		0.74		0.26	
370 Ellis St., Bldg. B	370AMB1B	11/13/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.440		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.760		0.200	ND
370 Ellis St., Bldg. B	370AMB3B	11/13/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.380		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.800		0.190	ND
370 Ellis St., Bldg. B	370AMB4B	11/13/03	Indoor	10	Primary	0.300		0.140	ND	3.500		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.860		0.220	
370 Ellis St., Bldg. B	370AMB4BD	11/13/03	Indoor	10	Duplicate	0.270		0.150	ND	2.800		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.720		0.200	
370 Ellis St., Bldg. B	370AMB4B	09/26/06	Indoor	10	Duplicate-EPA	0.200	J	0.200	ND	0.950		0.260	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640		0.270	ND
370 Ellis St., Bldg. B	370AMB4B	09/26/06	Indoor	10	Primary	0.220		0.130	ND	0.230		0.170	ND	0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.600		0.170	ND
					Number of Samples	6		6		6		6		6		6		6		6		5		6		6	
	Indoor - Weekday				Number of Detects	4		0		6		1		0		0		0		0		0		6		2	
					Minimum Detection	0.2		0		0.23		0.26		0		0		0		0		0		0.6		0.2	
					Maximum Detection	0.3		0		3.5		0.26		0		0		0		0		0		0.86		0.22	
380 Ellis St., Bldg. C	380AMB3Ce	05/10/03	Indoor	10	Duplicate	0.160	ND	0.130	ND	0.350		0.290		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.490		0.180	ND
380 Ellis St., Bldg. C	380AMB4CeD	05/10/03	Indoor	10	Duplicate	0.200		0.140	ND	1.000		1.600		0.044	ND	0.200	ND	0.068	ND	1.400		0.680	ND	0.500		0.340	
380 Ellis St., Bldg. C	380AMB4Cw	05/10/03	Indoor	10	Duplicate-EPA	8.000	ND	6.600	ND	0.730		0.300		0.140	ND	9.800	ND	0.220	ND	0.220	ND	NT		13.000	ND	8.900	ND
380 Ellis St., Bldg. C	380AMB1Ce	05/10/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.400		0.520		0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.500		0.180	
380 Ellis St., Bldg. C	380AMB1Cw	05/10/03	Indoor	10	Primary	0.340		4.700		0.310		0.620		0.170		0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.540		0.190	ND
380 Ellis St., Bldg. C	380AMB2Ce	05/10/03	Indoor	10	Primary	0.190		0.140	ND	0.840		0.410		0.044	ND	0.320	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.320	
380 Ellis St., Bldg. C	380AMB2Cw	05/10/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.300		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.510		0.190	ND
380 Ellis St., Bldg. C	380AMB3Ce	05/10/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.370		0.310		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.500		0.180	
380 Ellis St., Bldg. C	380AMB3Cw	05/10/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.340		0.240		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.530		0.190	
380 Ellis St., Bldg. C	380AMB4Ce	05/10/03	Indoor	10	Primary	0.190		0.130	ND	0.450		0.340		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.260	ND	0.280	
380 Ellis St., Bldg. C	380AMB4Cw	05/10/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.790		0.320		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.490		0.230	
380 Ellis St., Bldg. C	380AMB4CeD	05/17/03	Indoor	10	Duplicate	0.180		0.140	ND	0.300		0.320		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.620		0.190	J
380 Ellis St., Bldg. C	380AMB2Ce	05/17/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.580		0.480		0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
380 Ellis St., Bldg. C	380AMB1Ce	05/17/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.300		0.450		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.540		0.190	J
380 Ellis St., Bldg. C	380AMB1Cw	05/17/03	Indoor	10	Primary	0.250		0.150	ND	0.390		0.970		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.760		0.360	
380 Ellis St., Bldg. C	380AMB2Ce	05/17/03	Indoor	10	Primary	0.190		0.140	ND	0.540		0.370		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.700		0.220	
380 Ellis St., Bldg. C	380AMB2Cw	05/17/03	Indoor	10	Primary	0.200		0.140	ND	0.250		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	J
380 Ellis St., Bldg. C	380AMB3Ce	05/17/03	Indoor	10	Primary	0.190		0.140	ND	0.410		0.490		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.310	
380 Ellis St., Bldg. C	380AMB3Cw	05/17/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.280		0.220		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
380 Ellis St., Bldg. C	380AMB4Ce	05/17/03	Indoor	10	Primary	0.170	J	0.140	ND	0.280		0.320		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.690		0.190	ND
380 Ellis St., Bldg. C	380AMB4Cw	05/17/03	Indoor	10	Primary	0.190		0.150	ND	0.830		0.320		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.690		0.240	
380 Ellis St., Bldg. C	380AMB2Ce	09/27/03	Indoor	10	Duplicate-EPA	0.160	J	0.110	ND	0.250	J	0.820		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.650		0.180	J
380 Ellis St., Bldg. C	380AMB4Cw	09/27/03	Indoor	10	Duplicate-EPA	0.140	J	0.110	ND	0.360	J	2.200		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.540		0.170	J
380 Ellis St., Bldg. C	380AMB1Ce	09/27/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.230	ND	0.500		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.590		0.180	ND
380 Ellis St., Bldg. C	380AMB1Cw	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	1.500		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.650		0.190	ND
380 Ellis St., Bldg. C	380AMB2Ce	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.860		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.550		0.190	
380 Ellis St., Bldg. C	380AMB2Cw	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.320		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.600		0.190	ND
380 Ellis St., Bldg. C	380AMB3Ce	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.430		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.600		0.190	ND
380 Ellis St., Bldg. C	380AMB3Cw	09/27/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.480		1.000		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.530		0.180	ND
380 Ellis St., Bldg. C	380AMB4Ce	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.550		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.570		0.190	ND
380 Ellis St., Bldg. C	380AMB4Cw	09/27/03	Indoor	10	Primary	0.180		0.140	ND	0.420		2.800		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.610		0.200	
380 Ellis St., Bldg. C	380AMB3CwD	10/04/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.230		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.610		0.190	ND
380 Ellis St., Bldg. C	380AMB4Cw	10/04/03	Indoor	10	Duplicate	0.190		0.140	ND	0.410		0.240		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
380 Ellis St., Bldg. C	380AMB1Cw	10/04/03	Indoor	10	Duplicate-EPA	0.150	J	0.110	ND	0.190	ND	0.220	J	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.690		0.150	J
380 Ellis St., Bldg. C	380AMB2Ce	10/04/03	Indoor	10	Duplicate-EPA	0.210	J	0.110	ND	0.220	J	0.280	J	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.670		0.200	J
380 Ellis St., Bldg. C	380AMB1Ce	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.360		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
380 Ellis St., Bldg. C	380AMB1Cw	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.660		0.190	ND
380 Ellis St., Bldg. C	380AMB2Ce	10/04/03	Indoor	10	Primary	0.190		0.150	ND	0.240	J	0.230		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.560		0.200	ND
380 Ellis St., Bldg. C	380AMB2Cw	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.600		0.190	ND
380 Ellis St., Bldg. C	380AMB3Ce	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.570		0.190	ND
380 Ellis St., Bldg. C	380AMB3Cw	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.240		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.610		0.190	ND
380 Ellis St., Bldg. C	380AMB4Ce	10/04/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.450		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.580		0.190	ND
380 Ellis St., Bldg. C	380AMB4Cw	10/04/03	Indoor	10	Primary	0.200		0.140	ND	0.440		0.250		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.590		0.190	ND

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
380 Ellis St., Bldg. C	380HVAC1CwD	05/10/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.260	
380 Ellis St., Bldg. C	380HVAC1Ce	05/10/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.590		0.200	ND
380 Ellis St., Bldg. C	380HVAC1Cw	05/10/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.260		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.300	
380 Ellis St., Bldg. C	380HVAC2Ce	05/10/03	Outdoor	10	Primary	0.160	ND	0.130	ND	0.230		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.520		0.210	
380 Ellis St., Bldg. C	380HVAC1CwD	05/17/03	Outdoor	10	Duplicate	0.200	ND	0.170	ND	0.590		0.220	ND	0.054	ND	0.250	ND	0.083	ND	0.170	ND	0.830	ND	0.810		0.260	
380 Ellis St., Bldg. C	380HVAC1Ce	05/17/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.780		0.200	ND
380 Ellis St., Bldg. C	380HVAC1Cw	05/17/03	Outdoor	10	Primary	0.170	J	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.660		0.260	
380 Ellis St., Bldg. C	380HVAC2Ce	05/17/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.540		0.200	ND
380 Ellis St., Bldg. C	380ROOF1Cw	05/17/03	Outdoor	10	Primary	0.140		0.120	ND	0.190	ND	0.150	ND	0.037	ND	0.170	ND	0.057	ND	0.110	ND	0.570	ND	0.580		0.160	
380 Ellis St., Bldg. C	380HVAC2CeD	09/27/03	Outdoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.540		0.190	ND
380 Ellis St., Bldg. C	380HVAC2Ce	09/27/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.540		0.190	ND
380 Ellis St., Bldg. C	380HVAC2Ce	10/04/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270		0.190	ND
380 Ellis St., Bldg. C	380HVAC1Ce (D)	09/26/06	Outdoor	10	Duplicate	0.160		0.120	ND	0.200		0.160	ND	0.200		0.180	ND	0.058	ND	0.120	ND	0.580	ND	0.610		0.160	ND
380 Ellis St., Bldg. C	380HVAC1Ce	09/26/06	Outdoor	10	Primary	0.140	ND	0.110	ND	0.190	ND	0.150	ND	0.036	ND	0.170	ND	0.055	ND	0.110	ND	0.550	ND	0.290		0.150	ND
380 Ellis St., Bldg. C	380HVAC2Ce	09/26/06	Outdoor	10	Primary	0.150		0.120	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.610		0.170	ND
380 Ellis St., Bldg. C	380HVAC1Cw	09/26/06	Outdoor	10	Primary	0.150		0.120	ND	0.200	ND	0.160	ND	0.095		0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.580		0.160	ND
					Number of Samples	43		43		43		43		43		43		43		43		37		43		43	
	Indoor - Weekend				Number of Detects	19		1		29		38		1		0		0		1		0		39		20	
					Minimum Detection	0.14		4.7		0.22		0.22		0.17		0		0		1.4		0		0.49		0.15	
					Maximum Detection	0.34		4.7		1		2.8		0.17		0		0		1.4		0		0.76		0.36	
					Number of Samples	16		16		16		16		16		16		16		16		16		16		16	
	Outdoor				Number of Detects	5		0		4		0		2		0		0		0		0		14		6	
					Minimum Detection	0.14		0		0.2		0		0.095		0		0		0		0		0.27		0.16	
					Maximum Detection	0.17		0		0.59		0		0.2		0		0		0		0		0.81		0.3	
380 Ellis St., Bldg. C	380AMB4Cw	11/13/03	Indoor	10	Duplicate	0.240		0.130	ND	3.200		0.290		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.750		0.230	
380 Ellis St., Bldg. C	380AMB3Cw	11/13/03	Indoor	10	Primary	1.000		0.850		0.930		0.440		0.085		0.200	ND	0.240		0.310		0.680	ND	0.840		0.190	ND
380 Ellis St., Bldg. C	380AMB4Cw	11/13/03	Indoor	10	Primary	0.260		0.130	ND	3.400		0.310		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.760		0.250	
380 Ellis St., Bldg. C	380AMB1Ce	09/26/06	Indoor	10	Primary	0.150		0.120	ND	0.230		0.200		0.039	ND	0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.560		0.160	ND
380 Ellis St., Bldg. C	380AMB2Ce	09/26/06	Indoor	10	Primary	0.220		0.120	ND	0.260		0.170		0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.570		0.170	ND
380 Ellis St., Bldg. C	380AMB4Cw	09/26/06	Indoor	10	Primary	0.260		0.120	ND	0.290		0.210		0.037	ND	0.170	ND	0.057	ND	0.110	ND	0.570	ND	0.690		0.160	ND
					Number of Samples	6		6		6		6		6		6		6		6		6		6		6	
	Indoor - Weekday				Number of Detects	6		1		6		6		1		0		1		1		0		6		2	
					Minimum Detection	0.15		0.85		0.23		0.17		0.085		0		0.24		0.31		0		0.56		0.23	
					Maximum Detection	1		0.85		3.4		0.44		0.085		0		0.24		0.31		0		0.84		0.25	
380 Ellis St., Bldg. D	380AMB1DD	05/10/03	Indoor	10	Duplicate	0.160		0.130	ND	0.260		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.280	
380 Ellis St., Bldg. D	380AMB1D	05/10/03	Indoor	10	Primary	0.170		0.140	ND	0.260		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.350		0.280	
380 Ellis St., Bldg. D	380AMB2D	05/10/03	Indoor	10	Primary	0.180		0.140	ND	0.290		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.290	
380 Ellis St., Bldg. D	380AMB3D	05/10/03	Indoor	10	Primary	0.180		0.140	ND	0.270		0.380		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.340		0.260	
380 Ellis St., Bldg. D	380AMB4D	05/10/03	Indoor	10	Primary	0.180		0.140	ND	0.280		0.840		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.320	
380 Ellis St., Bldg. D	380AMB1DD	05/17/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.570		0.190	ND
380 Ellis St., Bldg. D	380AMB4D	05/17/03	Indoor	10	Duplicate	0.170		0.140	ND	0.240	ND	0.650		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.690		0.190	ND
380 Ellis St., Bldg. D	380AMB1D	05/17/03	Indoor	10	Primary	0.200		0.140	ND	0.280		0.210		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
380 Ellis St., Bldg. D	380AMB2D	05/17/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
380 Ellis St., Bldg. D	380AMB3D	05/17/03	Indoor	10	Primary	0.200		0.140	ND	0.240	J	0.260		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.190	ND
380 Ellis St., Bldg. D	380AMB4D	05/17/03	Indoor	10	Primary	0.180		0.140	ND	0.240	ND	0.590		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.190	ND
380 Ellis St., Bldg. D	380AMB4D	09/27/03	Indoor	10	Duplicate	0.180	ND	0.150	ND	0.250	ND	0.860		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.500		0.200	ND
380 Ellis St., Bldg. D	380AMB4D	09/27/03	Indoor	10	Duplicate-EPA	0.130	ND	0.110	ND	0.190	ND	0.760		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.170	ND	0.150	ND
380 Ellis St., Bldg. D	380AMB1D	09/27/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.530		0.190	ND
380 Ellis St., Bldg. D	380AMB2D	09/27/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.570		0.200	ND
380 Ellis St., Bldg. D	380AMB3D	09/27/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.190	J	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.540		0.200	ND
380 Ellis St., Bldg. D	380AMB4D	09/27/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.850		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.580		0.200	ND
380 Ellis St., Bldg. D	380AMB4DD	10/04/03	Indoor	10	Duplicate	0.170		0.120	ND	0.190	ND	0.630		0.037	ND	0.170	ND	0.057	ND	0.110	ND	0.570	ND	0.710		0.160	
380 Ellis St., Bldg. D	380AMB4D	10/04/03	Indoor	10	Duplicate-EPA	0.170	J	0.110	ND	0.190	ND	0.700		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.650		0.150	J
380 Ellis St., Bldg. D	380AMB1D	10/04/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.620		0.200	ND
380 Ellis St., Bldg. D	380AMB2D	10/04/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.260	ND	0.200	ND	0.048	ND	0.230	ND	0.075	ND	0.150	ND	0.750	ND	0.560		0.210	ND
380 Ellis St., Bldg. D	380AMB3D	10/04/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.590		0.200	ND
380 Ellis St., Bldg. D	380AMB4D	10/04/03	Indoor	10	Primary	0.170		0.120	ND	0.200	ND	0.660		0.039	ND	0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.700		0.160	ND
380 Ellis St., Bldg. D	380HVAC1D	05/10/03	Outdoor	10	Primary	0.210	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.710		0.190	
380 Ellis St., Bldg. D	380HVAC2D	05/10/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.620		0.190	ND

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
380 Ellis St., Bldg. D	380HVAC1D	05/17/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.640	0.200	ND
380 Ellis St., Bldg. D	380HVAC2D	05/17/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.580	0.200	ND
380 Ellis St., Bldg. D	380HVAC2D	09/26/06	Outdoor	10	Primary	0.180		0.120	ND	0.200		0.150	ND	0.380	ND	0.170	ND	0.057	ND	0.110	ND	0.570	ND	0.560	0.160	ND
	Indoor-Weekend				Number of Samples	23		23		23		23		23		23		23		23		21		23	23	
					Number of Detects	0		0		0		0		0		0		0		0		0		0	0	
					Minimum Detection	0.16		0		0.24		0.19		0		0		0		0		0		0.34	0.15	
					Maximum Detection	0.2		0		0.29		0.86		0		0		0		0		0		0.71	0.32	
	Outdoor				Number of Samples	5		5		5		5		5		5		5		5		5		5	5	
					Number of Detects	1		0		1		0		0		0		0		0		0		5	1	
					Minimum Detection	0.18		0		0.2		0		0		0		0		0		0		0.56	0.19	
					Maximum Detection	0.18		0		0.2		0		0		0		0		0		0		0.71	0.19	
380 Ellis St., Bldg. D	380AMB1D	09/26/06	Indoor	10	Primary	0.170		0.120	ND	0.250		0.440		0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.590	0.170	ND
380 Ellis St., Bldg. D	380AMB3D	09/26/06	Indoor	10	Primary	0.210		0.130	ND	0.210	ND	0.460		0.040	ND	0.200		0.063	ND	0.120	ND	0.630	ND	0.580	0.170	ND
380 Ellis St., Bldg. D	380AMB4D (D)	09/26/06	Indoor	10	Duplicate	0.170		0.120	ND	0.250		0.340		0.038	ND	0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.560	0.160	ND
380 Ellis St., Bldg. D	380AMB4D	09/26/06	Indoor	10	Primary	0.170		0.120	ND	0.210		0.360		0.038	ND	0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.560	0.160	ND
	Indoor-Weekday				Number of Samples	4		4		4		4		4		4		4		4		4		4	4	
					Number of Detects	0		0		0		0		0		0		0		0		0		0	0	
					Minimum Detection	0.17		0		0.21		0.34		0		0.2		0		0		0		0.56	0	
					Maximum Detection	0.21		0		0.25		0.46		0		0.2		0		0		0		0.59	0	
401 E. Middlefield Rd.	401AMB1R	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.480	0.190	ND
401 E. Middlefield Rd.	401AMB2R	05/06/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.520	0.180	ND
401 E. Middlefield Rd.	401AMB3R	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.510	0.260	
401 E. Middlefield Rd.	401AMB4R	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.480	0.190	ND
401 E. Middlefield Rd.	401AMB1R	05/13/03	Indoor	10	Primary	0.200		0.130	ND	0.270		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.410	0.190	
401 E. Middlefield Rd.	401AMB2R	05/13/03	Indoor	10	Primary	0.220		0.130	ND	0.310		0.700		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.680	0.190	
401 E. Middlefield Rd.	401AMB3R	05/13/03	Indoor	10	Primary	0.200		0.130	ND	0.420		0.240		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.400	0.190	
401 E. Middlefield Rd.	401AMB4R	05/13/03	Indoor	10	Primary	0.210		0.140	ND	0.250		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.420	0.200	
401 E. Middlefield Rd.	401AMB1R	11/11/03	Indoor	10	Primary	0.260		0.140	ND	0.290		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.770	0.190	ND
401 E. Middlefield Rd.	401AMB2R	11/11/03	Indoor	10	Primary	0.250		0.140	ND	0.250		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.780	0.190	ND
401 E. Middlefield Rd.	401AMB3R	11/11/03	Indoor	10	Primary	0.250		0.140	ND	0.240	J	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.740	0.190	ND
401 E. Middlefield Rd.	401AMB4R	11/11/03	Indoor	10	Primary	0.260		0.140	ND	0.260		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.840	0.190	ND
401 E. Middlefield Rd.	401AMB1R	11/14/03	Indoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.048	ND	0.440	J	0.074	ND	0.150	ND	0.740	ND	0.560	0.200	ND
401 E. Middlefield Rd.	401AMB1RD	11/14/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	J	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.340	0.190	ND
401 E. Middlefield Rd.	401AMB2R	11/14/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.520	0.190	ND
401 E. Middlefield Rd.	401AMB3R	11/14/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560	0.190	ND
401 E. Middlefield Rd.	401AMB4R	11/14/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	J	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.520	0.190	ND
401 E. Middlefield Rd.	401HVAC1R	05/06/03	Outdoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.430	0.180	ND
401 E. Middlefield Rd.	401HVAC1RD	05/06/03	Outdoor	10	Duplicate	0.220		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.440	0.190	ND
401 E. Middlefield Rd.	401HVAC1R	05/13/03	Outdoor	10	Primary	0.180		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.420	0.190	J
401 E. Middlefield Rd.	401HVAC1RD	05/13/03	Outdoor	10	Duplicate	0.190		0.140	ND	0.330		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.440	0.200	
401 E. Middlefield Rd.	401HVAC1R	11/11/03	Outdoor	10	Primary	0.270		0.140	ND	0.240	J	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.760	0.190	ND
401 E. Middlefield Rd.	401HVAC1R	11/14/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.250		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.440	0.190	ND
	Indoor - Ventilation system on				Number of Samples	17		17		17		17		17		17		17		17		17		17	17	
					Number of Detects	8		0		10		2		0		1		0		0		0		17	5	
					Minimum Detection	0.2		0		0.23		0.24		0		0.44		0		0		0		0.34	0.19	
					Maximum Detection	0.26		0		0.42		0.7		0		0.44		0		0		0		0.84	0.26	
	Outdoor				Number of Samples	6		6		6		6		6		6		6		6		6		6	6	
					Number of Detects	4		0		3		0		0		0		0		0		0		6	2	
					Minimum Detection	0.18		0		0.24		0		0		0		0		0		0		0.42	0.19	
					Maximum Detection	0.27		0		0.33		0		0		0		0		0		0		0.76	0.2	
401 E. Middlefield Rd.	401AMB1R	10/02/03	Indoor	10	Primary	0.250		0.140	ND	0.560		5.900		0.052	J	0.210	ND	0.070	ND	0.140	ND	0.700	ND	1.200	0.340	
401 E. Middlefield Rd.	401AMB2R	10/02/03	Indoor	10	Primary	0.270		0.130	ND	0.460		4.900		0.043	J	0.200	ND	0.066	ND	0.130	ND	0.660	ND	1.000	0.340	
401 E. Middlefield Rd.	401AMB3R	10/02/03	Indoor	10	Primary	0.220		0.150	ND	0.530		5.900		0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	1.200	0.320	
401 E. Middlefield Rd.	401AMB4R	10/02/03	Indoor	10	Primary	0.210		0.150	ND	0.460		4.500		0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	1.000	0.320	
401 E. Middlefield Rd.	401AMB1R	10/07/03	Indoor	10	Primary	0.480		0.130	ND	0.920		4.100		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	1.000	0.310	
401 E. Middlefield Rd.	401AMB1RD	10/07/03	Indoor	10	Duplicate	0.490		0.150	ND	0.960		4.800		0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.850	0.320	
401 E. Middlefield Rd.	401AMB2R	10/07/03	Indoor	10	Duplicate-EPA	0.460		0.110	ND	0.960		7.600		0.070	ND	0.170	ND	0.110	ND	0.230		NT		1.100	0.400	
401 E. Middlefield Rd.	401AMB2R	10/07/03	Indoor	10	Primary	0.530		0.140	ND	0.970		5.200		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	1.100	0.360	
401 E. Middlefield Rd.	401AMB3R	10/07/03	Indoor	10	Duplicate-EPA	0.360		0.110	ND	0.890		4.900		0.070	ND	0.270		0.110	ND	0.110	ND	NT		1.000	0.300	
401 E. Middlefield Rd.	401AMB3R	10/07/03	Indoor	10	Primary	0.450		0.140	ND	0.920		4.900		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	1.000	0.310	
401 E. Middlefield Rd.	401AMB4R	10/07/03	Indoor	10	Primary	0.500		0.140	ND	2.100		5.000		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	1.100	0.370	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
401 E. Middlefield Rd.	401HVAC1R	10/02/03	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.640		0.200	ND
401 E. Middlefield Rd.	401HVAC1R	10/07/03	Outdoor	10	Primary	0.300		0.140	ND	0.650		0.230		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.200	
	Indoor - ventilation system off				Number of Samples	11		11		11		11		11		11		11		11		9		11		11	
					Number of Detects	11		0		11		11		2		1		0		1		0		11		11	
					Minimum Detection	0.21		0		0.46		4.1		0.043		0.27		0		0.23		0		0.85		0.3	
					Maximum Detection	0.53		0		2.1		7.6		0.052		0.27		0		0.23		0		1.2		0.4	
	Outdoor				Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
					Number of Detects	1		0		1		1		0		0		0		0		0		2		1	
					Minimum Detection	0.3		0		0.65		0.23		0		0		0		0		0		0.56		0.2	
					Maximum Detection	0.3		0		0.65		0.23		0		0		0		0		0		0.64		0.2	
415 E. Middlefield Rd.	415AMB1R	05/06/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.260		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.520		0.190	ND
415 E. Middlefield Rd.	415AMB2R	05/06/03	Indoor	10	Primary	0.180		0.140	ND	0.230	ND	0.370		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.550		0.190	ND
415 E. Middlefield Rd.	415AMB3R	05/06/03	Indoor	10	Duplicate-EPA	5.300	ND	4.400	ND	0.370	ND	0.490		0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
415 E. Middlefield Rd.	415AMB3R	05/06/03	Indoor	10	Primary	0.540		0.390		3.600		4.800		0.044	ND	1.100		0.460		5.200		0.680	ND	0.530		1.100	
415 E. Middlefield Rd.	415AMB3RD	05/06/03	Indoor	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.420		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.440		0.190	ND
415 E. Middlefield Rd.	415AMB4R	05/06/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.190		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.480		0.180	ND
415 E. Middlefield Rd.	415AMB1R	05/13/03	Indoor	10	Primary	0.290		0.140	ND	0.320		0.250		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.520		0.220	
415 E. Middlefield Rd.	415AMB2R	05/13/03	Indoor	10	Primary	0.260		0.140	ND	0.320		0.210		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.490		0.220	
415 E. Middlefield Rd.	415AMB3R	05/13/03	Indoor	10	Primary	0.250		0.130	ND	0.290		0.240		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.430		0.200	
415 E. Middlefield Rd.	415AMB3RD	05/13/03	Indoor	10	Duplicate	0.250		0.140	ND	0.280		0.230		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.410		0.210	
415 E. Middlefield Rd.	415AMB4R	05/13/03	Indoor	10	Primary	0.280		0.130	ND	0.440		0.240		0.040	ND	0.590	ND	0.062	ND	0.120	ND	0.620	ND	0.490		0.220	
415 E. Middlefield Rd.	415AMB1R	11/11/03	Indoor	10	Primary	0.330		0.140	ND	0.260		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.890		0.190	ND
415 E. Middlefield Rd.	415AMB3R	11/11/03	Indoor	10	Primary	0.310		0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.800		0.200	ND
415 E. Middlefield Rd.	415AMB1R	11/14/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.240		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.620		0.190	ND
415 E. Middlefield Rd.	415AMB2R	11/14/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.230	J	0.240		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
415 E. Middlefield Rd.	415AMB3R	11/14/03	Indoor	10	Primary	0.160	ND	0.130	ND	0.250		0.220		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.570		0.180	ND
415 E. Middlefield Rd.	415AMB4R	11/14/03	Indoor	10	Primary	0.170	ND	0.140	ND	0.270		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.570		0.190	ND
415 E. Middlefield Rd.	415HVAC1R	05/06/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.440		0.190	ND
415 E. Middlefield Rd.	415HVAC1R	05/13/03	Outdoor	10	Primary	0.220		3.300		0.240	ND	0.190	ND	0.059		0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.420		0.190	ND
	Indoor - Ventilation system on				Number of Samples	17		17		17		17		17		17		17		17		16		17		17	
					Number of Detects	9		1		11		13		0		1		1		1		0		16		6	
					Minimum Detection	0.18		0.39		0.23		0.19		0		1.1		0.46		5.2		0		0.41		0.2	
					Maximum Detection	0.54		0.39		3.6		4.8		0		1.1		0.46		5.2		0		0.89		1.1	
	Outdoor				Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
					Number of Detects	1		1		0		0		1		0		0		0		0		2		0	
					Minimum Detection	0.22		3.3		0		0		0.059		0		0		0		0		0.42		0	
					Maximum Detection	0.22		3.3		0		0		0.059		0		0		0		0		0.44		0	
415 E. Middlefield Rd.	415AMB2RD	10/02/03	Indoor	10	Duplicate	0.210		0.150	ND	0.470		6.300		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	1.000		0.490	
415 E. Middlefield Rd.	415AMB3R	10/02/03	Indoor	10	Duplicate-EPA	0.170	J	0.110	ND	0.500		7.600		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.840		0.370	J
415 E. Middlefield Rd.	415AMB1R	10/02/03	Indoor	10	Primary	0.260		0.150	ND	0.580		7.000		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	1.000		0.470	
415 E. Middlefield Rd.	415AMB2R	10/02/03	Indoor	10	Primary	0.220		0.150	ND	0.510		6.100		0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.950		0.480	
415 E. Middlefield Rd.	415AMB3R	10/02/03	Indoor	10	Primary	0.220		0.150	ND	0.500		6.700		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	1.000		0.480	
415 E. Middlefield Rd.	415AMB4R	10/02/03	Indoor	10	Primary	0.240		0.140	ND	0.520		6.600		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	1.000		0.470	
415 E. Middlefield Rd.	415AMB1R	10/07/03	Indoor	10	Primary	9.000		0.140		1.000		6.700		0.120		0.200	ND	0.068	ND	1.500		4.800		1.000		0.490	
415 E. Middlefield Rd.	415AMB2R	10/07/03	Indoor	10	Primary	0.500		0.140	ND	0.940		5.600		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.900		0.420	
415 E. Middlefield Rd.	415AMB3R	10/07/03	Indoor	10	Primary	0.520		0.140	ND	1.100		7.200		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	1.000		0.550	
415 E. Middlefield Rd.	415AMB4R	10/07/03	Indoor	10	Primary	0.600		0.140	ND	1.000		6.700		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.930		0.450	
	Indoor - Ventilation system off				Number of Samples	10		10		10		10		10		10		10		10		9		10		10	
					Number of Detects	10		1		10		10		1		0		0		1		1		10		10	
					Minimum Detection	0.17		0.14		0.47		5.6		0.12		0		0		1.5		4.8		0.84		0.37	
					Maximum Detection	9		0.14		1.1		7.6		0.12		0		0		1.5		4.8		1		0.55	
	Outdoor				Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
					Number of Detects	1		0		1		1		0		0		0		0		0		2		1	
					Minimum Detection	0.3		0		0.65		0.23		0		0		0		0		0		0.56		0.2	
					Maximum Detection	0.3		0		0.65		0.23		0		0		0		0		0		0.64		0.2	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
460 E. Middlefield Rd.	460AMB4D	07/08/04	Indoor	10	Duplicate	0.150	ND	0.120	ND	1.100		0.170	ND	0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.610		0.170	ND
460 E. Middlefield Rd.	460AMB1	07/08/04	Indoor	10	Duplicate-EPA	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.490		0.270	ND
460 E. Middlefield Rd.	460AMB2	07/08/04	Indoor	10	Duplicate-EPA	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.530		0.270	ND
460 E. Middlefield Rd.	460AMB4	07/08/04	Indoor	10	Duplicate-EPA	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.510		0.270	ND
460 E. Middlefield Rd.	460AMB4A	07/08/04	Indoor	10	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.490		0.270	ND
460 E. Middlefield Rd.	460AMB1	07/08/04	Indoor	10	Primary	1.600		0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.600		0.170	ND
460 E. Middlefield Rd.	460AMB2	07/08/04	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.620		0.180	ND
460 E. Middlefield Rd.	460AMB3	07/08/04	Indoor	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.610		0.180	ND
460 E. Middlefield Rd.	460AMB4	07/08/04	Indoor	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.600		0.190	ND
460 E. Middlefield Rd.	460AMB2	07/14/04	Indoor	10	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570		0.270	ND
460 E. Middlefield Rd.	460AMB3	07/14/04	Indoor	10	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.580		0.140	J
460 E. Middlefield Rd.	460AMB4	07/14/04	Indoor	10	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.380	ND	0.270	ND
460 E. Middlefield Rd.	460HVAC1	07/08/04	Outdoor	10	Primary	0.150	ND	0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.620		0.170	ND
460 E. Middlefield Rd.	460HVAC1	07/14/04	Outdoor	10	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570		0.270	ND
					Number of Samples	12		12		12		12		12		12		12		12		5		12		12	
	Indoor				Number of Detects	1		0		1		0		0		0		0		0		0		11		1	
					Minimum Detection	1.6		0		1.1		0		0		0		0		0		0		0.49		0.14	
					Maximum Detection	1.6		0		1.1		0		0		0		0		0		0		0.62		0.14	
					Number of Samples	2		2		2		2		2		2		2		2		1		2		2	
	Outdoor				Number of Detects	0		0		0		0		0		0		0		0		0		2		0	
					Minimum Detection	0		0		0		0		0		0		0		0		0		0.57		0	
					Maximum Detection	0		0		0		0		0		0		0		0		0		0.62		0	
555 Ellis Street	555AMB1	06/22/06	Indoor	10	Primary	0.320		0.120	ND	0.360		0.170	ND	0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.640		0.180	
555 Ellis Street	555AMB2	06/22/06	Indoor	10	Primary	0.330		0.130	ND	0.480		0.170		0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.620		0.230	
555 Ellis Street	555AMB3	06/22/06	Indoor	10	Primary	0.330		0.130	ND	0.470		0.170	ND	0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.610		0.200	
555 Ellis Street	555AMB4	06/22/06	Indoor	10	Primary	0.430		0.120	ND	0.430		0.150	ND	0.037	ND	0.570	ND	0.057	ND	0.110	ND	0.570	ND	0.650		0.260	
555 Ellis Street	555HVAC1	06/22/06	Outdoor	10	Primary	0.290		0.130	ND	0.470		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.620		0.180	ND
					Number of Samples	4		4		4		4		4		4		4		4		4		4		4	
	Indoor				Number of Detects	4		0		4		1		0		0		0		0		0		4		4	
					Minimum Detection	0.32		0		0.36		0.17		0		0		0		0		0		0.61		0.18	
					Maximum Detection	0.43		0		0.48		0.17		0		0		0		0		0		0.65		0.26	
					Number of Samples	1		1		1		1		1		1		1		1		1		1		1	
	Outdoor				Number of Detects	1		1		1		1		1		1		1		1		1		1		1	
					Minimum Detection	0.29		0		0.47		0		0		0		0		0		0		0.62		0	
					Maximum Detection	0.29		0		0.47		0		0		0		0		0		0		0.62		0	
645 National Ave.	645AMB1	07/22/04	Indoor	10	Duplicate-EPA	0.130	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.630		0.140	J
645 National Ave.	645AMB2	07/22/04	Indoor	10	Duplicate-EPA	0.130	J	0.200	ND	0.340	ND	0.160	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640		0.150	J
645 National Ave.	645AMB3	07/22/04	Indoor	10	Duplicate-EPA	0.130	J	0.200	ND	0.340	ND	1.200		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.840		0.160	J
645 National Ave.	645AMB4	07/22/04	Indoor	10	Duplicate-EPA	1.300		0.200	ND	0.220	J	2.000		0.130	ND	0.260	J	0.200	ND	0.200	ND	NT		0.730		0.510	
645 National Ave.	645AMB5	07/22/04	Indoor	10	Duplicate-EPA	0.140	J	0.200	ND	0.580		0.150	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640		0.140	J
645 National Ave.	645AMB1	07/22/04	Indoor	10	Primary	0.190		0.140	ND	2.900		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.620		0.190	ND
645 National Ave.	645AMB2	07/22/04	Indoor	10	Primary	0.290		0.140	ND	0.420		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.560		0.190	ND
645 National Ave.	645AMB3	07/22/04	Indoor	10	Primary	0.650		0.140	ND	0.240	ND	0.990		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.550		0.190	ND
645 National Ave.	645AMB4	07/22/04	Indoor	10	Primary	1.100		0.130	ND	0.260		1.200		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.640		0.430	
645 National Ave.	645AMB5	07/22/04	Indoor	10	Primary	0.330		0.140	ND	1.900		0.210		0.045	ND	0.210	ND	0.072		0.140	ND	0.700	ND	0.830		0.190	ND
645 National Ave.	645HVAC1	07/22/04	Outdoor	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.650		0.200	ND
					Number of Samples	10		10		10		10		10		10		10		10		5		10		10	
	Indoor				Number of Detects	10		0		6		7		0		1		1		0		0		10		6	
					Minimum Detection	0.13		0		0.22		0.15		0		0.26		0.072		0		0		0.55		0.14	
					Maximum Detection	1.3		0		2.9		2		0		0.26		0.072		0		0		0.84		0.51	
					Number of Samples	1		1		1		1		1		1		1		1		1		1		1	
	Outdoor				Number of Detects	1		1		1		1		1		1		1		1		1		1		1	
					Minimum Detection	0		0		0		0		0		0		0		0		0		0.65		0	
					Maximum Detection	0		0		0		0		0		0		0		0		0		0.65		0	
660 National Ave.	660AMB1	10/02/03	Indoor	10	Primary	0.370		0.140	ND	0.860		0.450		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.580		0.190	ND
660 National Ave.	660AMB2	10/02/03	Indoor	10	Primary	0.390		0.140	ND	0.230	ND	0.490		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.570		0.180	J
660 National Ave.	660AMB3	10/02/03	Indoor	10	Primary	0.370		0.130	ND	0.310		1.700		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.630		0.240	
660 National Ave.	660AMB4	10/02/03	Indoor	10	Primary	0.350		0.140	ND	0.230	ND	0.890		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.590		0.300	
660 National Ave.	660AMB4D	10/02/03	Indoor	10	Duplicate	0.360		0.130	ND	0.220	ND	0.930		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.630		0.310	
660 National Ave.	660AMB5	10/02/03	Indoor	10	Duplicate-EPA	0.910		0.110	ND	0.700		4.500		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.810		0.290	J
660 National Ave.	660AMB5	10/02/03	Indoor	10	Primary	0.890		0.140	ND	0.750		5.700		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.770		0.270	
660 National Ave.	660AMB1	10/07/03	Indoor	10	Duplicate-EPA	0.640		0.110	ND	0.680		0.940		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.740		0.270	J
660 National Ave.	660AMB1	10/07/03	Indoor	10	Primary	3.400		0.140	ND	0.590		1.000		0.044	ND	0.200	ND	0.068	ND	0.620		2.800		0.640		0.220	
660 National Ave.	660AMB2	10/07/03	Indoor	10	Primary	0.620		0.140	ND	0.850		0.870		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.620		0.200	
660 National Ave.	660AMB3	10/07/03	Indoor	10	Primary	0.680		0.140	ND	1.200		3.400		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.690		0.300	
660 National Ave.	660AMB4	10/07/03	Indoor	10	Primary	0.580		0.140	ND	0.640		2.100		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.660		0.340	
660 National Ave.	660AMB5	10/07/03	Indoor	10	Primary	1.200		0.140	ND	1.400		9.000		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.870		0.330	
660 National Ave.	660AMB5D	10/07/03	Indoor	10	Duplicate	1.200		0.140	ND	1.300		8.600		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.880		0.330	
660 National Ave.	660HVAC1	10/02/03	Outdoor	10	Primary	0.170	ND	0.140	ND	0.470		0.280		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.590		0.190	ND
660 National Ave.	660HVAC1	10/07/03	Outdoor	10	Primary	0.240		0.140	ND	0.510		0.190	J	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.590		0.190	ND

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
	Indoor - Before mitigation				Number of Samples	14		14		14		14		14		14		14		14		12		14	14	
					Number of Detects	14		0		11		14		0		0		0		1		1		14	13	
					Minimum Detection	0.35		0		0.31		0.45		0		0		0		0.62		2.8		0.57	0.18	
					Maximum Detection	3.4		0		1.4		9		0		0		0		0.62		2.8		0.88	0.34	
	Outdoor				Number of Samples	2		2		2		2		2		2		2		2		2		2	2	
					Number of Detects	1		0		2		2		0		0		0		0		0		2	0	
					Minimum Detection	0.24		0		0.47		0.19		0		0		0		0		0		0.59	0	
					Maximum Detection	0.24		0		0.51		0.28		0		0		0		0		0		0.59	0	
660 National Ave.	660AMB1	05/25/04	Indoor	10	Primary	0.290		0.130	ND	0.270		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.680	0.210	
660 National Ave.	660AMB2	05/25/04	Indoor	10	Primary	0.340		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.540	0.200	
660 National Ave.	660AMB3	05/25/04	Indoor	10	Primary	0.210		0.130	ND	0.480		0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.660	0.200	
660 National Ave.	660AMB4	05/25/04	Indoor	10	Primary	0.200		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.550	0.240	
660 National Ave.	660AMB5	05/25/04	Indoor	10	Primary	0.690		0.140	ND	0.270		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.820	0.200	
660 National Ave.	660AMB5D	05/25/04	Indoor	10	Duplicate	0.250		0.140	ND	0.240		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.730	0.200	
660 National Ave.	660HVAC1	05/25/04	Outdoor	10	Primary	0.160	ND	0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.640	0.180	
	Indoor - After refurbishing ventilation system				Number of Samples	6		6		6		6		6		6		6		6		6		6	6	
					Number of Detects	6		0		4		0		0		0		0		0		0		6	6	
					Minimum Detection	0.2		0		0.24		0		0		0		0		0		0		0.54	0.2	
					Maximum Detection	0.69		0		0.48		0		0		0		0		0		0		0.82	0.24	
	Outdoor				Number of Samples	1		1		1		1		1		1		1		1		1		1	1	
					Number of Detects	0		0		0		0		0		0		0		0		0		1	1	
					Minimum Detection	0		0		0		0		0		0		0		0		0		0.64	0.18	
					Maximum Detection	0		0		0		0		0		0		0		0		0		0.64	0.18	
670 National Ave.	670AMB4D	08/19/04	Indoor	10	Duplicate	0.310		0.140	ND	0.310		2.400		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.750	0.220	
670 National Ave.	670AMB2	08/19/04	Indoor	10	Duplicate-EPA	0.270		0.200	ND	0.330	J	7.500		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.710	0.210	J
670 National Ave.	670AMB3	08/19/04	Indoor	10	Duplicate-EPA	0.260		0.200	ND	0.390		6.400		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.650	0.210	J
670 National Ave.	670AMB1	08/19/04	Indoor	10	Primary	0.220		0.140	ND	0.260		4.300		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.730	0.240	
670 National Ave.	670AMB2	08/19/04	Indoor	10	Primary	0.340		0.140	ND	0.370		5.400		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.750	0.240	
670 National Ave.	670AMB3	08/19/04	Indoor	10	Primary	0.300		0.140	ND	0.340		5.900		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.800	0.240	
670 National Ave.	670AMB4	08/19/04	Indoor	10	Primary	0.380		0.130	ND	1.400		2.200		0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.700	0.190	
670 National Ave.	670HVAC1	08/19/04	Outdoor	10	Primary	1.100		0.140	ND	2.900		0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.700	0.190	ND
	Indoor				Number of Samples	7		7		7		7		7		7		7		7		5		7	7	
					Number of Detects	7		0		7		7		0		0		0		0		0		7	7	
					Minimum Detection	0.22		0		0.26		2.2		0		0		0		0		0		0.65	0.19	
					Maximum Detection	0.38		0		1.4		7.5		0		0		0		0		0		0.8	0.24	
	Outdoor				Number of Samples	1		1		1		1		1		1		1		1		1		1	1	
					Number of Detects	1		1		1		1		1		1		1		1		1		1	1	
					Minimum Detection	1.1		0		2.9		0		0		0		0		0		0		0.7	0	
					Maximum Detection	1.1		0		2.9		0		0		0		0		0		0		0.7	0	
455 E. Middlefield Rd.	DUP-11131-May6	05/06/03	Indoor	24	Duplicate	NT		NT		NT		0.170	ND	0.039	ND	NT		NT		0.120	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11066-May6	05/06/03	Indoor	24	Primary	NT		NT		NT		0.170	ND	0.041	ND	NT		NT		0.130	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11131-May6	05/06/03	Indoor	24	Primary	NT		NT		NT		0.150	ND	0.035	ND	NT		NT		0.110	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-NOC-May6	05/06/03	Indoor	24	Primary	NT		NT		NT		0.190	ND	0.045	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-SOC-May6	05/06/03	Indoor	24	Primary	NT		NT		NT		0.150	ND	0.035	ND	NT		NT		0.110	ND	NT		NT	NT	
455 E. Middlefield Rd.	DUP-NOC-May13	05/13/03	Indoor	24	Duplicate	NT		NT		NT		0.110	ND	0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	IR-VERIS-03 (EPA Split 11	05/13/03	Indoor	24	Duplicate-EPA	NT		NT		NT		0.290	ND	0.140	ND	NT		NT		0.220	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11066-May13	05/13/03	Indoor	24	Primary	NT		NT		NT		0.110	J	0.045	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11131-May13	05/13/03	Indoor	24	Primary	NT		NT		NT		0.110	ND	0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-NOC-May13	05/13/03	Indoor	24	Primary	NT		NT		NT		0.120	J	0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-SOC-May13	05/13/03	Indoor	24	Primary	NT		NT		NT		0.110	ND	0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11066-Sept24	09/24/03	Indoor	24	Primary	NT		NT		NT		0.150	ND	0.037	ND	NT		NT		0.110	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-NOC-Sept24	09/24/03	Indoor	24	Primary	NT		NT		NT		0.200	ND	0.046	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-SOC-Sept24	09/24/03	Indoor	24	Primary	NT		NT		NT		0.160	ND	0.038	ND	NT		NT		0.120	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-DUP-11131-Oct2	10/02/03	Indoor	24	Duplicate	NT		NT		NT		0.180	ND	0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11066-Oct2	10/02/03	Indoor	24	Primary	NT		NT		NT		0.180	ND	0.042	ND	NT		NT		0.130	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-11131-Oct2	10/02/03	Indoor	24	Primary	NT		NT		NT		0.180	ND	0.043	ND	NT		NT		0.130	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-NOC-Oct2	10/02/03	Indoor	24	Primary	NT		NT		NT		1.700		0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-SOC-Oct2	10/02/03	Indoor	24	Primary	NT		NT		NT		0.180	ND	0.042	ND	NT		NT		0.130	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-DUP-NOC-Jan5	01/05/04	Indoor	24	Duplicate	NT		NT		NT		0.220	ND	0.052	ND	NT		NT		0.160	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-NOC-Jan5	01/05/04	Indoor	24	Primary	NT		NT		NT		0.220	ND	0.052	ND	NT		NT		0.160	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-1-May6	05/06/03	Outdoor	24	Primary	NT		NT		NT		0.170	ND	0.041	ND	NT		NT		0.130	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-2-May6	05/06/03	Outdoor	24	Primary	NT		NT		NT		0.130	J	0.036	ND	NT		NT		0.110	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-1-May13	05/13/03	Outdoor	24	Primary	NT		NT		NT		0.110	ND	0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-2-May13	05/13/03	Outdoor	24	Primary	NT		NT		NT		0.110	ND	0.048	ND	NT		NT		0.150	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-1-Sept24	09/24/03	Outdoor	24	Primary	NT		NT		NT		0.200	ND	0.048	ND	NT		NT		0.150	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-2-Sept24	09/24/03	Outdoor	24	Primary	NT		NT		NT		0.160	ND	0.039	ND	NT		NT		0.120	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-1-Oct2	10/02/03	Outdoor	24	Primary	NT		NT		NT		0.180	ND	0.042	ND	NT		NT		0.130	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-2-Oct2	10/02/03	Outdoor	24	Primary	NT		NT		NT		0.240		0.044	ND	NT		NT		0.140	ND	NT		NT	NT	
455 E. Middlefield Rd.	455-AC-Jan5	01/05/04	Outdoor	24	Primary	NT		NT		NT		0.200	ND	0.046	ND	NT		NT		0.140	ND	NT		NT	NT	
	Indoor				Number of Samples	0		0		0		21		21		0		0		21		0		0	0	
					Number of Detects	0		0		0		3		0		0		0		0		0		0	0	
					Minimum Detection	0		0		0		0.11		0		0		0		0		0		0	0	
					Maximum Detection	0		0		0		1.7		0		0		0		0		0		0	0	
	Outdoor				Number of Samples	0		0		0		9		9		0		0		9		0		0	0	
					Number of Detects	0		0		0		2		0		0		0		0		0		0	0	
					Minimum Detection	0		0		0		0.13		0		0		0		0		0		0	0	
					Maximum Detection	0		0		0		0.24		0		0		0		0		0		0	0	

TABLE 4-7
RESULTS OF INDOOR AND OUTDOOR SAMPLES - COMMERCIAL BUILDINGS
MIDDLEFIELD-ELLIS-MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB	1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
487 E. Middlefield Rd.	?-VERIS-01 (EPA Split 210	05/06/03	Indoor	24	Duplicate-EPA	NT	NT		NT		0.370	ND	0.220	ND	NT	NT		0.290	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21002-May6	05/06/03	Indoor	24	Primary	NT	NT		NT		0.250	ND	0.060	ND	NT	NT		0.180	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21032-May6	05/06/03	Indoor	24	Primary	NT	NT		NT		0.270	ND	0.063	ND	NT	NT		0.200	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21067-G-May6	05/06/03	Indoor	24	Primary	NT	NT		NT		0.110	ND	0.037	ND	NT	NT		0.110	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21082-May6	05/06/03	Indoor	24	Primary	NT	NT		NT		0.150	ND	0.035	ND	NT	NT		0.110	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21002-May13	05/13/03	Indoor	24	Primary	NT	NT		NT		0.110	J	0.048	ND	NT	NT		0.150	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21032-May13	05/13/03	Indoor	24	Primary	NT	NT		NT		0.110	ND	0.044	ND	NT	NT		0.140	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21067G-May13	05/13/03	Indoor	24	Primary	NT	NT		NT		0.110	ND	0.044	ND	NT	NT		0.140	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21082-May13	05/13/03	Indoor	24	Primary	NT	NT		NT		0.110	ND	0.045	ND	NT	NT		0.140	ND	NT		NT	NT	
487 E. Middlefield Rd.	DUP-SEPT-24 (21067B)	09/24/03	Indoor	24	Duplicate	NT	NT		NT		0.170	ND	0.039	ND	NT	NT		0.120	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21004-Sept24	09/24/03	Indoor	24	Primary	NT	NT		NT		0.160	ND	0.037	ND	NT	NT		0.120	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21032-Sept24	09/24/03	Indoor	24	Primary	NT	NT		NT		0.150	ND	0.037	ND	NT	NT		0.110	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21067B-Sept24	09/24/03	Indoor	24	Primary	NT	NT		NT		0.170	ND	0.041	ND	NT	NT		0.130	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21083-Sept24	09/24/03	Indoor	24	Primary	NT	NT		NT		0.220		0.035	ND	NT	NT		0.110	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21004-Oct2	10/02/03	Indoor	24	Primary	NT	NT		NT		0.170	ND	0.039	ND	NT	NT		0.120	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21032-Oct2	10/02/03	Indoor	24	Primary	NT	NT		NT		0.170	ND	0.041	ND	NT	NT		0.130	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21067B-Oct2	10/02/03	Indoor	24	Primary	NT	NT		NT		0.180	ND	0.043	ND	NT	NT		0.130	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-21083-Oct2	10/02/03	Indoor	24	Primary	NT	NT		NT		0.150	ND	0.035	ND	NT	NT		0.110	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-AC-1-May6	05/06/03	Outdoor	24	primary	NT	NT		NT		0.150	ND	0.036	ND	NT	NT		0.110	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-AC-1-May13	05/13/03	Outdoor	24	Primary	NT	NT		NT		0.110	ND	0.042	ND	NT	NT		0.130	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-AC-1-Sept24	09/24/03	Outdoor	24	Primary	NT	NT		NT		0.140	ND	0.034	ND	NT	NT		0.100	ND	NT		NT	NT	
487 E. Middlefield Rd.	487-AC-1-Oct2	10/02/03	Outdoor	24	Primary	NT	NT		NT		0.180	ND	0.043	ND	NT	NT		0.130	ND	NT		NT	NT	
Indoor					Number of Samples	0	0		0		18		18		0	0		18		0		0	0	
					Number of Detects	0	0		0		2		0		0	0		0		0		0	0	
					Minimum Detection	0	0		0		0.11		0		0	0		0		0		0	0	
					Maximum Detection	0	0		0		0.22		0		0	0		0		0		0	0	
Outdoor					Number of Samples	0	0		0		4		4		0	0		4		0		0	0	
					Number of Detects	0	0		0		0		0		0	0		0		0		0	0	
					Minimum Detection	0	0		0		0		0		0	0		0		0		0	0	
					Maximum Detection	0	0		0		0		0		0	0		0		0		0	0	
425 National Ave.	1C (Duplicate of 1B)	05/06/03	Indoor	24	Duplicate	NT	0.150	ND	0.190	J	7.100		0.046	ND	NT	0.072	ND	0.097	J	0.720	ND	3.900	0.470	
425 National Ave.	1A	05/06/03	Indoor	24	Primary	NT	0.130	ND	0.180	J	8.400		0.042	ND	NT	0.065	ND	0.050	J	0.650	ND	4.100	0.490	
425 National Ave.	1B	05/06/03	Indoor	24	Primary	NT	0.130	ND	0.180	J	8.000		0.041	ND	NT	0.036	J	0.041	J	0.640	ND	4.200	0.510	
425 National Ave.	1A	05/13/03	Indoor	24	Primary	NT	0.130	ND	0.190	J	8.700		0.041	ND	NT	0.064	ND	0.032	J	0.640	ND	2.100	0.340	
425 National Ave.	1B	05/13/03	Indoor	24	Primary	NT	0.140	ND	0.190	J	8.300		0.044	ND	NT	0.069	ND	0.034	J	0.690	ND	2.000	0.310	
425 National Ave.	A1	09/18/03	Indoor	8	Primary	NT	0.140	ND	0.310		7.700		0.044	ND	NT	0.068	ND	0.140	ND	0.680	ND	2.000	0.240	
425 National Ave.	A2	09/18/03	Indoor	8	Primary	NT	0.140	ND	0.290		7.400		0.044	ND	NT	0.068	ND	0.140	ND	0.680	ND	1.700	0.230	
425 National Ave.	A3	09/18/03	Indoor	8	Primary	NT	0.110	ND	0.280		7.500		0.036	ND	NT	0.056	ND	0.110	ND	0.560	ND	1.700	0.230	
425 National Ave.	2A	05/06/03	Indoor	24	Primary	NT	0.038	J	0.280		8.200		0.042	ND	NT	0.220		0.078	J	0.650	ND	4.100	0.680	
425 National Ave.	2B	05/06/03	Indoor	24	Primary	NT	0.130	ND	0.190	J	7.100		0.042	ND	NT	0.065	ND	0.063	J	0.650	ND	2.900	0.460	
425 National Ave.	2A	05/13/03	Indoor	24	Primary	NT	0.150	ND	0.210	J	8.400		0.048	ND	NT	0.074	ND	0.039	J	0.740	ND	2.100	0.320	
425 National Ave.	2B	05/13/03	Indoor	24	Primary	NT	0.140	ND	0.200	J	8.100		0.044	ND	NT	0.068	ND	0.040	J	0.680	ND	2.100	0.320	
425 National Ave.	OA Front	05/06/03	Outdoor	24	Primary	NT	0.140	ND	0.092	J	0.078	J	0.044	ND	NT	0.068	ND	0.140	ND	0.680	ND	0.190	J	0.270
425 National Ave.	OA Roof	05/06/03	Outdoor	24	Primary	NT	0.130	ND	0.096	J	0.140	J	0.043	ND	NT	0.066	ND	0.130	ND	0.660	ND	0.200	J	0.290
425 National Ave.	OA Front	05/13/03	Outdoor	24	Primary	NT	0.140	ND	0.095	J	0.170	J	0.044	ND	NT	0.069	ND	0.028	J	0.690	ND	0.430		0.180	J
425 National Ave.	OA Roof	05/13/03	Outdoor	24	Primary	NT	0.140	ND	0.090	J	0.110	J	0.044	ND	NT	0.069	ND	0.140	ND	0.690	ND	0.420		0.160	J
Indoor					Number of Samples	0	12		12		12		12		0	12		12		12		12	12	
					Number of Detects	0	1		12		12		0		0	2		9		0		12	12	
					Minimum Detection	0	0.038		0.18		7.1		0		0	0.036		0.032		0		1.7	0.23	
					Maximum Detection	0	0.038		0.31		8.7		0		0	0.22		0.097		0		4.2	0.68	
Outdoor					Number of Samples	0	4		4		4		4		0	4		4		4		4	4	
					Number of Detects	0	0		4		4		0		0	0		1		0		4	4	
					Minimum Detection	0	0		0.09		0.078		0		0	0		0.028		0		0.19	0.16	
					Maximum Detection	0	0		0.096		0.17		0		0	0		0.028		0		0.43	0.29	

Notes:

1. AM and PM Samples (collected in the morning and afternoon at one location) are counted as one sample
2. The TAGA results are not counted in this summary table
3. For NASA data, only the 24-hr samples are used in this table
4. The date range of outdoor data is the same as that for indoor data. For example, for NASA buildings 15, 16, 17, and 20 that use the same common outdoor sampling location, this table uses outdoor data from the outdoor location that correspond to the same date range in which indoor air samples were collected in the building.
5. ND denotes Non-detected; NT denotes not tested
6. Concentrations are in ug/m3
7. Co-located samples are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count
8. J flag is used when the value is between the method detection limit and the reporting limit.

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
313 Fairchild Drive		1	313PATH1D	05/06/03	10	Duplicate	0.180		0.130	ND	0.370		0.170	J	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.240	ND	0.250	
			313PATH1	05/06/03	10	Primary	0.280		0.140	ND	0.540		0.240		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.280		0.500	J
			313PATH1	05/13/03	10	Primary	0.290		0.130	ND	0.450		3.100		0.043	ND	9.900		0.066	ND	0.130	ND	0.660	ND	0.490		0.220	
			313PATH1	10/02/03	10	Duplicate-EPA	0.170	J	0.110	ND	0.260	J	0.700		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.740		0.210	J
			313PATH1	10/02/03	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.480		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.600		0.200	ND
			313PATH1	10/07/03	10	Primary	0.390		0.140	ND	0.640		0.320	J	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.560		0.190	ND
						Number of Samples	6		6		6		6		6		6		6		6		5		6		6	
						Number of Detects	5		0		5		6		0		1		0		0		0		5		4	
						Minimum Detection	0.170		0.000		0.260		0.170		0.000		9.900		0.000		0.000		0.000		0.280		0.210	
						Maximum Detection	0.390		0.000		0.640		3.100		0.000		9.900		0.000		0.000		0.000		0.740		0.500	
323 Fairchild Drive		1	323PATH2	05/06/03	10	Duplicate	0.380		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.720		0.270	J
			323PATH2	05/06/03	10	Duplicate-EPA	5.300	ND	4.400	ND	0.370	ND	0.370	ND	0.220	ND	6.600	ND	0.220	ND	0.290	ND	NT		8.400	ND	6.000	ND
			323PATH1	05/06/03	10	Primary	2.400		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.390		0.290	J
			323PATH2	05/06/03	10	Primary	0.400		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.360		0.270	J
			323PATH2	05/13/03	10	Duplicate-EPA	5.300	ND	4.400	ND	0.190	J	0.290	ND	0.140	ND	6.600	ND	0.220	ND	0.220	ND	NT		8.400	ND	6.000	ND
			323PATH1	05/13/03	10	Primary	1.400		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.560		0.190	ND
			323PATH2	05/13/03	10	Primary	0.350		0.130	ND	0.480		0.720		0.043	ND	0.200	ND	0.066	ND	0.320		0.660	ND	0.260	ND	0.260	
			323PATH2	10/02/03	10	Duplicate-EPA	0.230	J	0.110	ND	0.190	ND	0.150	ND	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.670		0.160	J
						Number of Samples	8		8		8		8		8		8		8		8		5		8		8	
						Number of Detects	6		0		2		1		0		0		0		1		0		5		5	
						Minimum Detection	0.230		0.000		0.190		0.720		0.000		0.000		0.000		0.320		0.000		0.360		0.160	
						Maximum Detection	2.400		0.000		0.480		0.720		0.000		0.000		0.000		0.320		0.000		0.720		0.290	
369 N. Whisman Rd.		1	369PATH1D	05/06/03	10	Duplicate	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.710		0.190	ND
			369PATH1	05/06/03	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.720		0.190	ND
			369PATH1	05/13/03	10	Primary	0.260		0.140	ND	0.230	J	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.270	ND	0.280	
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	1		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	0.260		0.000		0.230		0.000		0.000		0.000		0.000		0.000		0.000		0.710		0.280	
						Maximum Detection	0.260		0.000		0.230		0.000		0.000		0.000		0.000		0.000		0.000		0.720		0.280	
379 N. Whisman Rd.		1	379PATH1	05/06/03	10	Primary	1.100		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.500		0.190	ND
			379PATH1	05/13/03	10	Primary	1.100		0.130	ND	0.260		0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.460		0.200	
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	2		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	1.100		0.000		0.260		0.000		0.000		0.000		0.000		0.000		0.000		0.460		0.200	
						Maximum Detection	1.100		0.000		0.260		0.000		0.000		0.000		0.000		0.000		0.000		0.500		0.200	
389 N. Whisman Rd.		1	389PATH1	05/06/03	10	Primary	0.190		0.130	ND	0.210	ND	0.170	ND	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.240	ND	0.260	
			389PATH1	05/13/03	10	Primary	0.340		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.250	ND	0.330	
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	2		0		0		0		0		0		0		0		0		0		2	
						Minimum Detection	0.190		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.260	
						Maximum Detection	0.340		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.330	
399 N. Whisman Rd.		1	399PATH1	05/06/03	10	Primary	0.430		0.120	ND	0.200	ND	0.160	ND	0.039	ND	0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.530		0.250	
			399PATH1D	05/13/03	10	Duplicate	0.660		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.320		0.310	
			399PATH1	05/13/03	10	Primary	0.620		0.130	ND	0.240		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.330		0.290	
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	3		0		1		0		0		0		0		0		0		3		3	
						Minimum Detection	0.430		0.000		0.240		0.000		0.000		0.000		0.000		0.000		0.000		0.320		0.250	
						Maximum Detection	0.660		0.000		0.240		0.000		0.000		0.000		0.000		0.000		0.000		0.530		0.310	
401 National Ave	Before mitigation	1	401PATH1D	05/06/03	10	Duplicate	0.370		0.360		0.880		57.000		0.044	ND	0.210	ND	2.900		14.000		0.690	ND	56.000		20.000	
			401PATH1	05/06/03	10	Primary	0.330		0.310		0.750		50.000		0.044	ND	0.210	ND	2.500		13.000		0.690	ND	48.000		18.000	
			401PATH1	05/13/03	10	Primary	0.520		0.480		1.200		74.000		0.044	ND	0.210	ND	2.000		18.000		0.680	J	48.000		34.000	
			401PATH1	06/09/03	10	Duplicate-EPA	5.300	ND	4.400	ND	0.270	J	6.400	J	0.140	ND	6.600	ND	0.290		1.400		NT		15.000		6.000	ND
			401PATH1	06/09/03	10	Primary	0.200		0.140	ND	0.370		5.000		0.044	ND	0.210	ND	0.190		1.100		0.690	ND	7.400		1.000	
						Number of Samples	5		5		5		5		5		5		5		5		4		5		5	
						Number of Detects	4		3		5		5		0		0		5		5		1		5		4	
						Minimum Detection	0.200		0.310		0.270		5.000		0.000		0.000		0.190		1.100		0.680		7.400		1.000	
						Maximum Detection	0.520		0.480		1.200		74.000		0.000		0.000		2.900		18.000		0.680		56.000		34.000	
	After mitigation (sealing of conduits and installation of exhaust system in utility rooms)	1	401PATH1	09/04/03	10	Primary	0.180	ND	0.150	ND	14.000		2.300		0.046	ND	0.220	ND	0.210		0.480		0.720	ND	2.100		1.600	
			401PATH1	04/01/04	10	Primary	0.220		0.120	ND	0.300		5.600		0.039	ND	0.180	ND	0.150		1.200		0.610	ND	5.300		1.400	
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
						Minimum Detection	0.220		0.000		0.300		2.300		0.000		0.000		0.150		0.480		0.000		2.100		1.400	
						Maximum Detection	0.220		0.000		14.000		5.600		0.000		0.000		0.210		1.200		0.000		5.300		1.600	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
464 Ellis St.		1	464PATH1	05/06/03	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.240	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.270	J
			464PATH1D	05/13/03	10	Duplicate	0.210		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.550		0.210	
			464PATH1	05/13/03	10	Primary	0.210		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.520		0.190	
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	2		0		0		0		0		0		0		0		0		2		3	
						Minimum Detection	0.210		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.520		0.190	
						Maximum Detection	0.210		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.550		0.270	
466 Ellis St.		1	466PATH1	05/06/03	10	Primary	0.220		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.460		0.190	ND
			466PATH1	05/13/03	10	Primary	0.440		0.140	ND	0.560		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.260		0.280	
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	2		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	0.220		0.000		0.560		0.000		0.000		0.000		0.000		0.000		0.000		0.260		0.280	
						Maximum Detection	0.440		0.000		0.560		0.000		0.000		0.000		0.000		0.000		0.000		0.460		0.280	
468 Ellis St.		1	468PATH1	05/06/03	10	Primary	0.680		0.130	ND	0.230	ND	0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	1.500		0.450	
			468PATH1	05/13/03	10	Primary	0.360		0.150	ND	0.330		0.200	ND	0.048	ND	0.230	ND	0.075	ND	0.150	ND	0.750	ND	1.300		0.410	
			468PATH1D	05/06/03	10	Duplicate	0.580		0.110	ND	0.260		0.150	ND	0.035	ND	0.160	ND	0.054	ND	0.110	ND	0.540	ND	0.550		0.460	
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	3		0		2		0		0		0		0		0		0		3		3	
						Minimum Detection	0.360		0.000		0.260		0.000		0.000		0.000		0.000		0.000		0.000		0.550		0.410	
						Maximum Detection	0.680		0.000		0.330		0.000		0.000		0.000		0.000		0.000		0.000		1.500		0.460	
468 Ellis St.		1	468PATH2	05/06/03	10	Primary	3.600		0.140	ND	0.230	ND	0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.710		0.260	
			468PATH2	05/13/03	10	Primary	2.900		0.140	ND	0.240	ND	0.190	ND	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.610		0.200	
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	2		0		0		0		0		0		0		0		0		2		2	
						Minimum Detection	2.900		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.610		0.200	
						Maximum Detection	3.600		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.710		0.260	
515 N. Whisman Rd		1	515PATH1	05/06/03	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.490		0.270	J
			515PATH1D	05/13/03	10	Duplicate	0.680		0.160	ND	0.310		0.230	ND	0.051	ND	0.400	ND	0.079	ND	0.160	ND	0.790	ND	0.740		0.300	
			515PATH1	05/13/03	10	Primary	0.710		0.140	ND	0.440		0.390		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.410		0.290	
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	2		0		2		1		0		0		0		0		0		3		3	
						Minimum Detection	0.680		0.000		0.310		0.390		0.000		0.000		0.000		0.000		0.000		0.410		0.270	
						Maximum Detection	0.710		0.000		0.440		0.390		0.000		0.000		0.000		0.000		0.000		0.740		0.300	
545 N. Whisman Rd.		1	545PATH1	05/06/03	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.520		0.200	
			545PATH1	05/13/03	10	Primary	0.290		0.130	ND	0.230		0.180	ND	0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.460		0.180	ND
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	1		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	0.290		0.000		0.230		0.000		0.000		0.000		0.000		0.000		0.000		0.460		0.200	
						Maximum Detection	0.290		0.000		0.230		0.000		0.000		0.000		0.000		0.000		0.000		0.520		0.200	
355/365 E. Middlefield Rd.	Path 1 before mitigation	1	IP1	05/06/03	12	Primary	NT			ND	NT		17.000			ND	NT		0.130	ND	0.025	J		ND	2.100		NT	
			IP1	05/13/03	12	Primary	NT			ND	NT		49.000			ND	NT		0.042	J	0.055	J		ND	3.000		NT	
						Number of Samples	0		2		0		2		2		0		2		2		2		2		0	
						Number of Detects	0		0		0		2		0		0		1		2		0		2		0	
						Minimum Detection	0.000		0.000		0.000		17.000		0.000		0.000		0.042		0.025		0.000		2.100		0.000	
						Maximum Detection	0.000		0.000		0.000		49.000		0.000		0.000		0.042		0.055		0.000		3.000		0.000	
	Path 1 after mitigation (refurbishing ventilation system to increase makeup air)	1	IP1	09/04/03	12	Primary	NT			ND	NT		0.190	ND		ND	NT		0.070	ND	0.140	ND		ND	0.760		NT	
			IP1	09/11/03	12	Primary	NT			ND	NT		0.230			ND	NT		0.072	ND	0.230			ND	0.680		NT	
			IP1	12/23/03	10	Primary	NT			ND	NT		0.620			ND	NT		0.072	ND	0.140	ND		ND	0.800		NT	
						Number of Samples	0		3		0		3		3		0		3		3		3		0	
						Number of Detects	0		0		0		2		0		0		0		1		0		3		0	
						Minimum Detection	0.000		0.000		0.000		0.230		0.000		0.000		0.000		0.230		0.000		0.680		0.000	
						Maximum Detection	0.000		0.000		0.000		0.620		0.000		0.000		0.000		0.230		0.000		0.800		0.000	
	Path 2	1	IP2	05/06/03	12	Primary	NT			ND	NT		0.500			ND	NT		0.064	ND	0.130	ND		ND	0.670		NT	
			IP2	05/13/03	12	Primary	NT			ND	NT		0.370			ND	NT		0.070	ND	0.140	ND		ND	0.490		NT	
						Number of Samples	0		2		0		2		2		0		2		2		2		2		0	
						Number of Detects	0		0		0		2		0		0		0		0		0		2		0	
						Minimum Detection	0.000		0.000		0.000		0.370		0.000		0.000		0.000		0.000		0.000		0.490		0.000	
						Maximum Detection	0.000		0.000		0.000		0.500		0.000		0.000		0.000		0.000		0.000		0.670		0.000	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform	1,1-DCA	PCE	TCE	VC	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA
20		Crawlspace	20-3-24A-042804	04/28/04	24	Primary	NT	0.135	0.233	26.808	0.021 ND	0.281 ND	0.235	2.433	0.111		0.233
		Crawlspace	20-3-24A-051904	05/19/04	24	Primary	NT	0.124	0.136	27.221	0.021 ND	0.286 ND	0.042 ND	2.136	0.092		0.196
		Crawlspace	20-3-24A-061704	06/17/04	24	Primary	NT	0.163	0.232	35.029	0.021 ND	0.280 ND	0.374	2.669	0.131		0.237
						Number of Samples	0	3	3	3	3	3	3	3	3	0	3
						Number of Detects	0	3	3	3	0	0	2	3	3	3	3
						Minimum Detection	0.000	0.124	0.136	26.808	0.000	0.000	0.235	2.136	0.092	0.000	0.196
						Maximum Detection	0.000	0.163	0.233	35.029	0.000	0.000	0.374	2.669	0.131	0.000	0.237
N210		1	N210-4-24A-090704	09/07/04	24	Primary	NT	NT	0.438	6.602	0.047 ND	NT	NT	0.146 ND	NT		NT
			N210-4-24A-090904	09/09/04	24	Primary	NT	NT	0.299	3.358	0.047 ND	NT	NT	0.293	NT		NT
			N210-4-24A-091404	09/14/04	24	Primary	NT	NT	0.321	4.085	0.042 ND	NT	NT	0.408	NT		NT
			N210-4-24A-091604	09/16/04	24	Primary	NT	NT	0.250 ND	3.796	0.047 ND	NT	NT	0.353	NT		NT
			N210-4-24B-091604	09/16/04	24	Duplicate	NT	NT	0.764	4.016	0.045 ND	NT	NT	0.362	NT		NT
			210-11-24A-071205	07/12/05	24	Primary	NT	NT	0.370	35.891	0.050 ND	NT	NT	2.813	NT		NT
			210-10-24A-071405	07/14/05	24	Primary	NT	NT	16.700	1817.739	NT	NT	NT	109.813	NT		NT
			210-11-24A-071905	07/19/05	24	Primary	NT	NT	0.354	37.413	0.045 ND	NT	NT	2.722	NT		NT
			210-10-24A-072105	07/21/05	24	Primary	NT	NT	11.841	1157.905	NT	NT	NT	81.424	NT		NT
			210-10-24A-092705	09/27/05	24	Primary	NT	NT	6.032	777.379	NT	NT	NT	45.099	NT		NT
			210-17-24A-092705	09/27/05	24	Primary	NT	NT	0.842	0.505	0.042 ND	NT	NT	0.131 ND	NT		NT
			210-10-24A-092905	09/29/05	24	Primary	NT	NT	0.906	66.214	0.045 ND	NT	NT	4.482	NT		NT
			210-17-24A-092905	09/29/05	24	Primary	NT	NT	1.046	0.281	0.042 ND	NT	NT	0.130 ND	NT		NT
			210-10-24A 010306	01/03/06	24	Primary	NT	NT	0.225 ND	0.251	0.042 ND	NT	NT	0.132 ND	NT		NT
			210-11A-24A 010306	01/03/06	24	Primary	NT	NT	0.472	3.344	0.040 ND	NT	NT	0.267	NT		NT
			210-11A-24B 010306	01/03/06	24	Duplicate	NT	NT	0.845	2.675	0.042 ND	NT	NT	0.214	NT		NT
			210-17-24A 010306	01/03/06	24	Primary	NT	NT	0.704	21.177	0.045 ND	NT	NT	2.222	NT		NT
			210-10-24A 010506	01/05/06	24	Primary	NT	NT	0.515	0.447	0.040 ND	NT	NT	0.124 ND	NT		NT
			210-11A-24A 010506	01/05/06	24	Primary	NT	NT	1.129	2.962	0.043 ND	NT	NT	0.285	NT		NT
			210-17-24A 010506	01/05/06	24	Primary	NT	NT	1.200	0.302	0.043 ND	NT	NT	0.132 ND	NT		NT
						Number of Samples	0	0	20	20	17	0	0	20	0	0	0
						Number of Detects	0	0	18	20	0	0	0	14	0	20	0
						Minimum Detection	0.000	0.000	0.299	0.251	0.000	0.000	0.000	0.214	0.000	0.000	0.000
						Maximum Detection	0.000	0.000	16.700	1817.739	0.000	0.000	0.000	109.813	0.000	0.000	0.000
N239A		1	239A-1-24A-071205	07/12/05	24	Primary	NT	NT	0.244 ND	0.663	0.047 ND	NT	NT	0.143 ND	NT		NT
			239A-1-24A-071905	07/19/05	24	Primary	NT	NT	0.236 ND	0.605	0.045 ND	NT	NT	0.138 ND	NT		NT
						Number of Samples	0	0	2	2	2	0	0	2	0	0	0
						Number of Detects	0	0	0	2	0	0	0	0	0	2	0
						Minimum Detection	0.000	0.000	0.000	0.605	0.000	0.000	0.000	0.000	0.000	0.000	0.000
						Maximum Detection	0.000	0.000	0.000	0.663	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N243		Basement	N243-1-24A-080403	08/04/03	24	Primary	NT	0.083 ND	0.425	0.662	0.020 ND	0.278 ND	0.041 ND	0.018	0.057 ND		0.504
			N243-1-24A-080503	08/05/03	24	Primary	NT	0.083 ND	0.174	0.771	0.020 ND	0.278 ND	0.041 ND	0.031	0.057 ND		0.672
			N243-1-24A-080603	08/06/03	24	Primary	NT	0.083 ND	0.132	0.882	0.020 ND	0.278 ND	0.041 ND	0.053	0.057 ND		0.616
			N243-1-81A-080703	8/7/03	8	Primary	NT	0.083 ND	0.181	0.828	0.020 ND	0.278 ND	0.041 ND	0.038	0.057 ND		0.561
			N243-1-83A-080703	8/7/03	8	Primary	NT	0.083 ND	0.355	1.048	0.013	0.278 ND	0.041 ND	0.301	0.057 ND		0.785
			N243-1-83B-080703	8/7/03	8	Duplicate	NT	0.083 ND	0.349	1.104	0.014	0.278 ND	0.041 ND	0.301	0.057 ND		0.785
			N243-1-24A-080803	8/8/03	24	Primary	NT	0.083 ND	0.181	0.827	0.020 ND	0.278 ND	0.041 ND	0.081	0.057 ND		0.672
			243-1-24B-030804	3/8/04	24	Duplicate	NT	0.013	0.632	1.111	0.021 ND	0.280 ND	0.041 ND	0.164	0.024		0.790
			243-1-82A-030904	3/9/04	8	Primary	NT	0.084 ND	0.511	0.998	0.021 ND	0.279 ND	0.012	0.119	0.057 ND		0.788
			243-1-83A-030904	3/9/04	8	Primary	NT	0.084 ND	0.422	1.113	0.021 ND	0.280 ND	0.041 ND	0.127	0.013		0.848
			243-1-24A-031004	03/10/04	24	Primary	NT	0.083 ND	0.399	0.886	0.013	0.279 ND	0.041 ND	0.114	0.013		0.523
			243-1-24A-031104	03/11/04	24	Primary	NT	0.084 ND	0.463	0.943	0.008	0.280 ND	0.041 ND	0.115	0.016		0.536
			243-1-24A-031204	03/12/04	24	Primary	NT	0.084 ND	0.448	1.108	0.021 ND	0.279 ND	0.041 ND	0.143	0.057 ND		0.546
						Number of Samples	0	13	13	13	13	13	13	13	13	0	13
						Number of Detects	0	1	13	13	4	0	1	13	4	13	13
						Minimum Detection	0.000	0.013	0.132	0.662	0.008	0.000	0.012	0.018	0.013	0.000	0.504
						Maximum Detection	0.000	0.013	0.632	1.113	0.014	0.000	0.012	0.301	0.024	0.000	0.848

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
501 Ellis Street	Server Room	1	Server Room	10/02/03	24	Primary	NT	NT		0.220		2.800		0.039	ND	NT		NT		0.120	ND	NT		NT	NT	
			Server Room	01/15/04	10	Primary	NT	NT		0.230	ND	0.180	ND	0.043	ND	NT		NT		0.130	ND	NT		NT	NT	
			Server Room EPA	12/15/04	10	Duplicate-EPA	NT	NT		0.250	ND	0.350	ND	0.170	ND	NT		NT		0.260	ND	NT		NT	NT	
			Server Room	12/15/04	10	Primary	NT	NT		0.240	ND	0.190	ND	0.045	ND	NT		NT		0.140	ND	NT		NT	NT	
						Number of Samples	0	0		4		4		4		0		0		4		0		0	0	
						Number of Detects	0	0		1		1		0		0		0		0		0		0	0	
						Minimum Detection	0.000	0.000		0.220		2.800		0.000		0.000		0.000		0.000		0.000		0.000	0.000	
						Maximum Detection	0.000	0.000		0.220		2.800		0.000		0.000		0.000		0.000		0.000		0.000	0.000	
	V-9	1	V-9	01/15/04	10	Primary	NT	NT		0.240	ND	0.230		0.045	ND	NT		NT		0.140	ND	NT		NT	NT	
						Number of Samples	0	0		1		1		1		0		0		1		0		0	0	
						Number of Detects	0	0		1		1		1		0		0		1		0		0	0	
						Minimum Detection	0.000	0.000		0.000		0.230		0.000		0.000		0.000		0.000		0.000		0.000	0.000	
						Maximum Detection	0.000	0.000		0.000		0.230		0.000		0.000		0.000		0.000		0.000		0.000	0.000	
	Pipe Samples	1	Drain - EPA	09/24/03	24	EPA Primary	NT	NT		1.480		33.000		0.090		NT		NT		0.480		NT		NT	NT	
			Drain	10/02/03	24	Primary	NT	NT		0.300		4.600		0.042	ND	NT		NT		0.130	ND	NT		NT	NT	
			SE Office - EPA	12/15/04	10	Duplicate-EPA	NT	NT		0.230	J	0.350	ND	0.170	ND	NT		NT		0.260	ND	NT		NT	NT	
			SE Office	12/15/04	10	Primary	NT	NT		0.400		0.180	ND	0.043	ND	NT		NT		0.130	ND	NT		NT	NT	
						Number of Samples	0	0		4		4		4		0		0		4		0		0	0	
						Number of Detects	0	0		0		0		0		0		0		0		0		0	0	
						Minimum Detection	0.000	0.000		0.230		4.600		0.090		0.000		0.000		0.480		0.000		0.000	0.000	
						Maximum Detection	0.000	0.000		1.480		33.000		0.090		0.000		0.000		0.480		0.000		0.000	0.000	
350 Ellis St., Bldg. E	Path 1 before mitigation	1	350PATH1	05/10/03	10	Primary	0.680	0.130	ND	10.000		48.000		0.043	ND	0.200	ND	0.220		0.400		0.660	ND	1.600	6.200	
			350PATH1	05/17/03	10	Duplicate	0.470	0.140	ND	4.400		23.000		0.045	ND	0.210	ND	0.180		0.270		0.700	ND	2.100	2.000	
			350PATH1	05/17/03	10	Primary	0.470	0.140	ND	4.500		24.000		0.045	ND	0.210	ND	0.210		0.280		0.700	ND	2.200	2.100	
						Number of Samples	3	3		3		3		3		3		3		3		3		3	3	
						Number of Detects	3	0		3		3		0		0		3		3		0		3	3	
						Minimum Detection	0.470	0.000		4.400		23.000		0.000		0.000		0.180		0.270		0.000		1.600	2.000	
						Maximum Detection	0.680	0.000		10.000		48.000		0.000		0.000		0.220		0.400		0.000		2.200	6.200	
	Path 1 after sealing of counduits	1	350PATH1	09/03/03	10	Primary	0.460	0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.420	0.190	ND
			350PATH1	09/27/03	10	Duplicate-EPA	0.440	0.110	ND	0.180	J	0.640		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.590	0.150	J
			350PATH1	09/27/03	10	Primary	0.240	0.140	ND	0.570		0.440		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.760	0.270	
			350PATH1	10/04/03	10	Primary	0.210	0.150	ND	0.250	ND	0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.660	0.200	ND
			350PATH1	09/26/06	10	Duplicate-EPA	0.200	J 0.200	ND	0.330	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.740	0.270	ND
			350PATH1	09/26/06	10	Primary	0.230	0.130	ND	0.270		0.170	ND	0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.560	0.170	ND
						Number of Samples	6	6		6		6		6		6		6		6		4		6	6	
						Number of Detects	6	0		4		2		0		0		0		0		0		6	2	
						Minimum Detection	0.200	0.000		0.180		0.440		0.000		0.000		0.000		0.000		0.000		0.420	0.150	
						Maximum Detection	0.460	0.000		0.570		0.640		0.000		0.000		0.000		0.000		0.000		0.760	0.270	
	Path 2 after sealing conduits	1	350PATH2	09/03/03	10	Primary	0.270	0.150	ND	0.250	ND	1.900		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.580	0.200	
			350PATH2	09/27/03	10	Duplicate	0.210	0.150	ND	0.260		3.400		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.890	0.260	
			350PATH2	09/27/03	10	Primary	0.210	0.150	ND	0.260		3.700		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.900	0.260	
			350PATH2	10/04/03	10	Primary	0.460	0.150	ND	0.440		0.740		0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	0.760	0.200	ND
			350PATH2	09/26/06	10	Primary	0.210	0.120	ND	0.430		0.270		0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.630	0.170	ND
						Number of Samples	5	5		5		5		5		5		5		5		5		5	5	
						Number of Detects	5	0		4		5		0		0		0		0		0		5	3	
						Minimum Detection	0.210	0.000		0.260		0.270		0.000		0.000		0.000		0.000		0.000		0.580	0.200	
						Maximum Detection	0.460	0.000		0.440		3.700		0.000		0.000		0.000		0.000		0.000		0.900	0.260	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE	TCE	VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
370 Ellis St., Bldg. A	Path 1 before mitigation	1	370PATH1A	05/10/03	10	Primary	1.100		0.150	ND	3.300	150.000	0.048	ND	0.220	ND	0.500		1.400		0.740	ND	16.000	4.600	
			370PATH1A	05/10/03	10	Duplicate	1.100		0.140	ND	3.400	150.000	0.044	ND	0.200	ND	0.480		1.500		0.680	ND	16.000	4.600	
			370PATH1A	05/17/03	10	Primary	1.500		0.140	J	5.300	170.000	0.045	ND	0.210	ND	0.230		2.300		0.700	ND	7.600	8.700	
			370PATH1A	05/17/03	10	Duplicate	1.500		0.140	ND	4.800	150.000	0.045	ND	0.210	ND	0.710		2.200		0.700	ND	24.000	6.100	
						Number of Samples	4		4		4	4	4		4		4		4		4		4	4	
						Number of Detects	4		1		4	4	0		0		4		4		0		4	4	
						Minimum Detection	1.100		0.140		3.300	150.000	0.000		0.000		0.230		1.400		0.000		7.600	4.600	
						Maximum Detection	1.500		0.140		5.300	170.000	0.000		0.000		0.710		2.300		0.000		24.000	8.700	
	Path 1 after sealing of counduits	1	370PATH1A	09/03/03	10	Duplicate	0.530		0.140	ND	7.400	12.000	0.045	ND	0.210	ND	0.070	ND	0.170		0.700	ND	4.300	2.000	
			370PATH1A	09/03/03	10	Primary	0.530		0.140	ND	7.600	12.000	0.045	ND	0.210	ND	0.070	ND	0.160		0.700	ND	4.400	2.000	
			370PATH1A	09/27/03	10	Duplicate-EPA	0.130	J	0.110	ND	5.200	12.000	0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		7.300	2.000	
			370PATH1A	09/27/03	10	Primary	0.330		0.140	ND	5.200	13.000	0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	7.200	2.300	
			370PATH1A	10/04/03	10	Primary	0.290		0.140	ND	4.000	6.400	0.044	ND	0.200	ND	0.085		0.140	ND	0.680	ND	5.700	1.300	
						Number of Samples	5		5		5	5	5		5		5		5		4		5	5	
						Number of Detects	5		0		5	5	0		0		1		2		0		5	5	
						Minimum Detection	0.130		0.000		4.000	6.400	0.000		0.000		0.085		0.160		0.000		4.300	1.300	
						Maximum Detection	0.530		0.000		7.600	13.000	0.000		0.000		0.085		0.170		0.000		7.300	2.300	
	Path 1 after air purifier	1	370PATH1A	04/13/04	10	Primary	0.160	ND	0.130	ND	4.200	2.000	0.042	ND	0.200	ND	0.065	ND	0.140		0.650	ND	2.800	0.500	
			370PATH1A	04/15/04	10	Primary	0.200		0.130	ND	5.000	0.830	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	0.850	0.210	
			370PATH1A	04/20/04	10	Primary	0.160		0.120	ND	7.500	0.580	0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.500	0.170	ND
			370PATH1A	06/16/04	10	AM sample	0.330		0.130	ND	9.600	3.300	0.042	ND	0.200	ND	0.066		0.130	ND	0.650	ND	6.000	1.800	
			370PATH1A	06/16/04	10	PM sample	0.150	ND	0.120	ND	3.600	0.550	0.039	ND	0.180	ND	0.061	ND	0.120	ND	0.610	ND	0.940	0.290	
			370PATH1A	07/23/04	10	Primary	0.160	ND	0.130	ND	3.900	8.400	0.043	ND	0.200	ND	0.330		0.130	ND	0.660	ND	2.200	3.400	
			370PATH1A	07/30/04	10	Primary	0.170		0.130	ND	1.800	2.000	0.043	ND	0.200	ND	0.081		0.130	ND	0.660	ND	2.800	0.830	
			370PATH1A	09/03/04	10	Primary	0.160	ND	0.130	ND	1.400	1.800	0.042	ND	0.200	ND	0.120		0.130	ND	0.650	ND	3.800	0.690	
			370PATH1A	09/14/04	10	Primary	0.150	ND	0.130	ND	1.000	0.980	0.040	ND	0.190	ND	0.062	ND	0.120	ND	0.620	ND	1.900	0.340	
			370PATH1A	08/02/05	10	Duplicate	0.250		0.140	ND	0.440	0.480	0.044	ND	0.200	ND	0.110		0.140	ND	0.680	ND	1.700	0.540	
			370PATH1A	08/02/05	10	Primary	0.240		0.140	ND	0.440	0.490	0.044	ND	0.200	ND	0.097		0.140	ND	0.680	ND	1.700	0.560	
			370PATH1A	09/26/06	10	Primary	0.210		0.120	ND	0.330	0.340	0.038	ND	0.180	ND	0.066		0.120	ND	0.590	ND	1.800	0.350	
						Number of Samples	12		12		12	12	12		12		12		12		12		12	12	
						Number of Detects	7		0		12	12	0		0		7		1		0		12	11	
						Minimum Detection	0.160		0.000		0.330	0.340	0.000		0.000		0.066		0.140		0.000		0.500	0.210	
						Maximum Detection	0.330		0.000		9.600	8.400	0.000		0.000		0.330		0.140		0.000		6.000	3.400	
	Pathway 2 after sealing of conduits	1	370PATH2A	09/03/03	10	Primary	0.260		0.150	ND	1.400	2.100	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	1.200	0.550	
			370PATH2A	09/27/03	10	Primary	0.180		0.140	ND	0.570	3.100	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	1.600	0.640	
			370PATH2A	10/04/03	10	Primary	0.210		0.150	ND	0.510	4.800	0.048	ND	0.220	ND	0.074	ND	0.150	ND	0.740	ND	2.400	0.960	
			370PATH2A	10/04/03	10	Duplicate	0.200		0.150	ND	0.390	4.600	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	2.400	0.920	
			370PATH2A	09/30/05	10	Primary	0.450		0.140	ND	0.510	5.800	0.043	ND	0.200	ND	0.130		0.130	ND	0.670	ND	2.900	1.300	
						Number of Samples	5		5		5	5	5		5		5		5		5		5	5	
						Number of Detects	5		0		5	5	0		0		1		0		0		5	5	
						Minimum Detection	0.180		0.000		0.390	2.100	0.000		0.000		0.130		0.000		0.000		1.200	0.550	
						Maximum Detection	0.450		0.000		1.400	5.800	0.000		0.000		0.130		0.000		0.000		2.900	1.300	
	Pathway 2 after air purifier	1	370PATH2A	11/29/05	10	Primary	0.180	ND	0.150	ND	0.250	ND	3.000		0.048	ND	0.220	ND	0.077		0.150	ND	0.740	ND	1.500	0.510	
			370PATH2A	11/29/05	10	Duplicate	0.180	ND	0.150	ND	0.250	ND	2.400		0.047	ND	0.220	ND	0.130		0.140	ND	0.720	ND	1.300	0.440	
			370PATH2A	01/24/06	10	Primary	0.170	ND	0.140	ND	0.310		2.200		0.045	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	1.300	0.280	
			370PATH2A	09/26/06	10	Duplicate-EPA	0.200	J	0.200	ND	0.590		3.000		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		1.900	0.710	
			370PATH2A	09/26/06	10	Primary	0.210		0.120	ND	0.210	ND	2.300		0.039	ND	0.180	ND	0.074		0.120	ND	0.600	ND	1.400	0.540	
						Number of Samples	5		5		5	5	5		5		5		5		4		5	5	
						Number of Detects	2		0		2	5	0		0		3		0		0		5	5	
						Minimum Detection	0.200		0.000		0.310	2.200	0.000		0.000		0.074		0.000		0.000		1.300	0.280	
						Maximum Detection	0.210		0.000		0.590	3.000	0.000		0.000		0.130		0.000		0.000		1.900	0.710	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
370 Ellis St., Bldg. B	Pathway 1 before mitigation	1	370PATH1B	05/10/03	10	Duplicate-EPA	8.000	ND	6.600	ND	0.290		1.700	ND	0.140	ND	9.800	ND	0.220	ND	0.220	ND	NT		12.500	ND	8.900	ND
			370PATH1B	05/10/03	10	Primary	0.180		0.140	ND	0.300		1.600		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.590		0.200	
			370PATH1B	05/17/03	10	Primary	0.200		0.120	ND	0.310		0.860		0.039	ND	0.240		0.060	ND	0.120	ND	0.600	ND	0.590		0.190	
						Number of Samples	3		3		3		3		3		3		3		3		2		3		3	
						Number of Detects	2		0		3		2		0		1		0		0		0		2		2	
						Minimum Detection	0.180		0.000		0.290		0.860		0.000		0.240		0.000		0.000		0.000		0.590		0.190	
						Maximum Detection	0.200		0.000		0.310		1.600		0.000		0.240		0.000		0.000		0.000		0.590		0.200	
	Pathway 1 after sealing of conduits	1	370PATH1B	09/03/03	10	Primary	0.190		0.150	ND	0.540		0.630		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.590		0.200	ND
			370PATH1B	09/27/03	10	Duplicate	0.180	ND	0.150	ND	0.250		5.600		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.630		0.200	ND
			370PATH1B	09/27/03	10	Primary	0.190		0.150	ND	0.250		5.900		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.710		0.200	ND
			370PATH1B	10/04/03	10	Duplicate	0.180	ND	0.150	ND	0.250	ND	0.940		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.630		0.200	ND
			370PATH1B	10/04/03	10	Primary	0.180	ND	0.150	ND	0.250	ND	0.940		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.680		0.200	ND
			370PATH1B (D)	09/26/06	10	Duplicate	0.170		0.130	ND	0.440		0.510		0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.540		0.170	ND
			370PATH1B	09/26/06	10	Primary	0.220		0.120	ND	0.590		0.780		0.039	ND	0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.800		0.160	ND
						Number of Samples	7		7		7		7		7		7		7		7		7		7		7	
						Number of Detects	4		0		5		7		0		0		0		0		0		7		0	
						Minimum Detection	0.170		0.000		0.250		0.510		0.000		0.000		0.000		0.000		0.000		0.540		0.000	
						Maximum Detection	0.220		0.000		0.590		5.900		0.000		0.000		0.000		0.000		0.000		0.800		0.000	
	Pathway 2 after sealing of conduits	1	370PATH2B	09/03/03	10	Duplicate	0.320		0.150	ND	4.500		8.800		0.046	ND	0.220	ND	0.130		0.140	ND	0.720	ND	2.700		1.500	
			370PATH2B	09/03/03	10	Primary	0.310		0.150	ND	4.400		8.600		0.046	ND	0.220	ND	0.080		0.140	ND	0.720	ND	3.000		1.400	
			370PATH2B	09/27/03	10	Primary	0.370		0.140	ND	4.000		18.000		0.045	ND	0.210	ND	0.072		0.140	ND	0.700	ND	5.400		1.600	
			370PATH2B	10/04/03	10	Primary	0.170	ND	0.140	ND	0.320		1.200		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.530		0.190	ND
			370PATH2B	09/30/05	10	Primary	0.420		0.130	ND	0.390		0.250		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.630		0.180	ND
						Number of Samples	5		5		5		5		5		5		5		5		5		5		5	
						Number of Detects	4		0		5		5		0		0		3		0		0		5		3	
						Minimum Detection	0.310		0.000		0.320		0.250		0.000		0.000		0.072		0.000		0.000		0.530		1.400	
						Maximum Detection	0.420		0.000		4.500		18.000		0.000		0.000		0.130		0.000		0.000		5.400		1.600	
	Pathway 2 after air purifier	1	370PATH2B	11/29/05	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.190	ND	0.046	ND	0.220	ND	0.071	ND	0.140	ND	0.710	ND	0.270	ND	0.200	ND
			370PATH2B	01/24/06	10	Primary	0.290		0.140	ND	0.410		0.590		0.045	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	1.300		0.190	ND
			370PATH2B	09/26/06	10	Duplicate-EPA	0.490	ND	0.400	ND	1.100		0.540	ND	0.260	ND	0.600	ND	0.400	ND	0.400	ND	NT		0.770	ND	0.550	ND
			370PATH2B	09/26/06	10	Primary	0.140	ND	0.120	ND	0.200	ND	0.160	ND	0.038	ND	0.180	ND	0.059	ND	0.120	ND	0.590	ND	0.230	ND	0.160	ND
						Number of Samples	4		4		4		4		4		4		4		4		3		4		4	
						Number of Detects	1		0		2		1		0		0		0		0		0		1		0	
						Minimum Detection	0.290		0.000		0.410		0.590		0.000		0.000		0.000		0.000		0.000		1.300		0.000	
						Maximum Detection	0.290		0.000		1.100		0.590		0.000		0.000		0.000		0.000		0.000		1.300		0.000	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
380 Ellis St., Bldg. C	Pathway 1 before mitigation	1	380PATH1Ce	05/10/03	10	Primary	1.400		0.320		58.000		310.000		0.089	ND	0.420	ND	1.900		1.600		1.400	ND	11.000	24.000	
			380PATH1Ce	05/17/03	10	Primary	1.500		0.370		64.000		200.000		0.087	ND	0.410	ND	3.000		1.700		1.400	ND	22.000	24.000	
						Number of Samples	2		2		2		2		2		2		2		2		2		2	2	
						Number of Detects	2		2		2		2		0		0		2		2		0		2	2	
						Minimum Detection	1.400		0.320		58.000		200.000		0.000		0.000		1.900		1.600		0.000		11.000	24.000	
						Maximum Detection	1.500		0.370		64.000		310.000		0.000		0.000		3.000		1.700		0.000		22.000	24.000	
	Pathway 1 after sealing of conduits	1	380PATH1Ce	09/03/03	10	Primary	0.220		0.140	ND	2.700		5.000		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	2.200	1.000	
			380PATH1Ce	09/03/03	10	Duplicate	0.220		0.140	ND	2.700		5.100		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	2.300	0.990	
			380PATH1Ce	09/27/03	10	Primary	0.170	J	0.140	ND	1.600		3.800		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	2.500	0.810	
			380PATH1Ce	10/04/03	10	Duplicate-EPA	0.200	J	0.110	ND	2.400		6.400		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		5.200	1.000	
			380PATH1Ce	10/04/03	10	Primary	0.210		0.140	ND	2.800		6.000		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	4.400	0.870	
			380PATH1Ce	09/30/05	10	Primary	0.410		0.130	ND	2.000		6.500		0.046	ND	0.200	ND	0.120		0.130	ND	0.650	ND	3.000	1.400	
						Number of Samples	6		6		6		6		6		6		6		6		5		6	6	
						Number of Detects	6		0		6		6		0		0		1		0		0		6	6	
						Minimum Detection	0.170		0.000		1.600		3.800		0.000		0.000		0.120		0.000		0.000		2.200	0.810	
						Maximum Detection	0.410		0.000		2.800		6.500		0.000		0.000		0.120		0.000		0.000		5.200	1.400	
	Pathway 1 after air purifier	1	380PATH1Ce	11/29/05	10	Primary	0.170	ND	0.140	ND	0.350		0.420		0.045	ND	0.220	ND	0.071	ND	0.140	ND	0.710	ND	0.410	0.200	
			380PATH1Ce	01/24/06	10	Primary	0.170	ND	0.140	ND	0.240	ND	0.200		0.045	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.690	0.190	
			380PATH1Ce	09/26/06	10	Primary	0.190		0.110	ND	0.670		0.670		0.036	ND	0.170	ND	0.072		0.110	ND	0.560	ND	1.600	0.310	
						Number of Samples	3		3		3		3		3		3		3		3		3		3	3	
						Number of Detects	1		0		2		3		0		0		1		0		0		3	3	
						Minimum Detection	0.190		0.000		0.350		0.200		0.000		0.000		0.072		0.000		0.000		0.410	0.190	
						Maximum Detection	0.190		0.000		0.670		0.670		0.000		0.000		0.072		0.000		0.000		1.600	0.310	
	Pathway 2 after sealing of conduits	1	380PATH2Ce	09/03/03	10	Primary	0.190		0.140	ND	1.000		0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.470	0.190	ND
			380PATH2Ce	09/27/03	10	Primary	0.160	ND	0.130	ND	0.230	ND	0.560		0.043	ND	0.200	ND	0.066	ND	0.130	ND	0.660	ND	0.520	0.180	ND
			380PATH2Ce	10/04/03	10	Primary	0.180		0.140	ND	0.240	ND	0.250		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.600	0.190	ND
			380PATH2Ce	09/26/06	10	Primary	0.220		0.110	ND	0.270		0.220		0.036	ND	0.170	ND	0.056	ND	0.110	ND	0.560	ND	0.610	0.150	ND
						Number of Samples	4		4		4		4		4		4		4		4		4		4	4	
						Number of Detects	3		0		2		3		0		0		0		0		0		4	0	
						Minimum Detection	0.180		0.000		0.270		0.220		0.000		0.000		0.000		0.000		0.000		0.470	0.000	
						Maximum Detection	0.220		0.000		1.000		0.560		0.000		0.000		0.000		0.000		0.000		0.610	0.000	
	Pathway 3 before mitigation	1	380PATH1Cw	05/10/03	10	Primary	0.160	ND	0.130	ND	0.430		0.180	ND	0.043	ND	0.210		0.066	ND	0.130	ND	0.660	ND	0.520	0.190	
			380PATH1Cw	05/17/03	10	Primary	0.180	ND	0.150	ND	0.350		0.200	ND	0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.610	0.200	
						Number of Samples	2		2		2		2		2		2		2		2		2		2	2	
						Number of Detects	0		0		2		0		0		1		0		0		0		2	2	
						Minimum Detection	0.000		0.000		0.350		0.000		0.000		0.210		0.000		0.000		0.000		0.520	0.190	
						Maximum Detection	0.000		0.000		0.430		0.000		0.000		0.210		0.000		0.000		0.000		0.610	0.200	
	Pathway 3 after sealing conduits	1	380PATH1Cw	09/03/03	10	Primary	0.190		0.150	ND	1.300		0.290		0.046	ND	0.340		0.072	ND	0.140	ND	0.720	ND	0.900	0.200	
			380PATH1Cw	09/27/03	10	Primary	0.230		0.150	ND	0.380		0.790		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.950	0.200	ND
			380PATH1Cw	10/04/03	10	Primary	0.170	ND	0.140	ND	0.360		0.560		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.680	0.190	ND
			380PATH1Cw	09/26/06	10	Primary	0.230		0.120	ND	0.250		0.160	ND	0.037	ND	0.180	ND	0.058	ND	0.120	ND	0.580	ND	0.640	0.160	ND
						Number of Samples	4		4		4		4		4		4		4		4		4		4	4	
						Number of Detects	3		0		4		3		0		1		0		0		0		4	1	
						Minimum Detection	0.190		0.000		0.250		0.290		0.000		0.340		0.000		0.000		0.000		0.640	0.200	
						Maximum Detection	0.230		0.000		1.300		0.790		0.000		0.340		0.000		0.000		0.000		0.950	0.200	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
380 Ellis St., Bldg. D	Pathway 1 before mitigation	1	380PATH1D	05/10/03	10	Primary	0.260		0.140	ND	0.490		1.200		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.440		0.370	
			380PATH1D	05/17/03	10	Duplicate	0.250		0.140	ND	0.390		4.800		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.340	
			380PATH1D	05/17/03	10	Primary	0.280		0.140	ND	0.430		5.100		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.270	ND	0.360	J
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	3		0		3		3		0		0		0		0		0		1		3	
						Minimum Detection	0.250		0.000		0.390		1.200		0.000		0.000		0.000		0.000		0.000		0.440		0.340	
						Maximum Detection	0.280		0.000		0.490		5.100		0.000		0.000		0.000		0.000		0.000		0.440		0.370	
	Pathway 1 after sealing of conduits	1	380PATH1D	09/03/03	10	Primary	0.180		0.150	ND	0.700		0.920		0.046	ND	0.220	ND	0.072	ND	0.140	ND	0.720	ND	0.520		0.220	
			380PATH1D	09/27/03	10	Duplicate-EPA	0.170	J	0.110	ND	0.240	J	1.100		0.070	ND	0.170	ND	0.110	ND	0.110	ND	NT		0.610		0.210	J
			380PATH1D	09/27/03	10	Primary	0.210		0.140	ND	0.280		1.300		0.045	ND	0.580		0.070	ND	0.140	ND	0.700	ND	0.630		0.240	
			380PATH1D	10/04/03	10	Primary	0.230		0.150	ND	0.400		1.300		0.048	ND	0.220	ND	0.074	ND	0.220		0.740	ND	0.650		0.220	
			380PATH1D	09/26/06	10	Duplicate-EPA	0.180	J	0.200	ND	0.500		1.600		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.840		0.180	J
			380PATH1D	09/26/06	10	Primary	0.230		0.130	ND	0.470		2.000		0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.710		0.210	
						Number of Samples	6		6		6		6		6		6		6		6		4		6		6	
						Number of Detects	6		0		6		6		0		1		0		1		0		6		6	
						Minimum Detection	0.170		0.000		0.240		0.920		0.000		0.580		0.000		0.220		0.000		0.520		0.180	
						Maximum Detection	0.230		0.000		0.700		2.000		0.000		0.580		0.000		0.220		0.000		0.840		0.240	
	Pathway 2 after sealing of conduits	1	380PATH2D	09/03/03	10	Primary	0.210		0.140	ND	0.660		0.630		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.500		0.190	ND
			380PATH2D	09/27/03	10	Primary	0.240		0.140	ND	0.410		1.200		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.930		0.270	
			380PATH2D	10/04/03	10	Duplicate	0.200		0.140	ND	0.240		0.710		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.710		0.190	ND
			380PATH2D	10/04/03	10	Primary	0.200		0.140	ND	0.250		0.730		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.740		0.190	ND
			380PATH2D	09/26/06	10	Primary	0.200		0.120	ND	0.470		1.500		0.039	ND	0.180	ND	0.060	ND	0.120	ND	0.600	ND	0.910		0.200	
						Number of Samples	5		5		5		5		5		5		5		5		5		5		5	
						Number of Detects	5		0		5		5		0		0		0		0		0		5		2	
						Minimum Detection	0.200		0.000		0.240		0.630		0.000		0.000		0.000		0.000		0.000		0.500		0.200	
						Maximum Detection	0.240		0.000		0.660		1.500		0.000		0.000		0.000		0.000		0.000		0.930		0.270	
401 E. Middlefield Rd.		1	401PATH1R	05/06/03	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.490		0.180	ND
			401PATH1R	05/13/03	10	Primary	0.420		0.140	ND	0.620		0.180	ND	0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.430		0.190	
						Number of Samples	2		2		2		2		2		2		2		2		2		2		2	
						Number of Detects	1		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	0.420		0.000		0.620		0.000		0.000		0.000		0.000		0.000		0.000		0.430		0.190	
						Maximum Detection	0.420		0.000		0.620		0.000		0.000		0.000		0.000		0.000		0.000		0.490		0.190	
415 E. Middlefield Rd.		1	415PATH1R	05/06/03	10	Primary	0.160	ND	0.130	ND	1.400		0.260		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.490		0.180	ND
						Number of Samples	1		1		1		1		1		1		1		1		1		1		1	
						Number of Detects	1		1		1		1		1		1		1		1		1		1		1	
						Minimum Detection	0.000		0.000		1.400		0.260		0.000		0.000		0.000		0.000		0.000		0.490		0.000	
						Maximum Detection	0.000		0.000		1.400		0.260		0.000		0.000		0.000		0.000		0.000		0.490		0.000	
460 E. Middlefield Rd.		1	460PATH1	07/08/04	10	Primary	0.160	ND	0.130	ND	0.220	ND	0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.590		0.180	ND
			460PATH1	07/14/04	10	EPA Primary	0.360		0.200	ND	0.450		0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.590		0.160	J
						Number of Samples	2		2		2		2		2		2		2		2		1		2		2	
						Number of Detects	1		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	0.360		0.000		0.450		0.000		0.000		0.000		0.000		0.000		0.000		0.590		0.160	
						Maximum Detection	0.360		0.000		0.450		0.000		0.000		0.000		0.000		0.000		0.000		0.590		0.160	
555 Ellis Street		1	555PATH1D	06/22/06	10	Duplicate	0.450		0.130	ND	0.420		0.170	ND	0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.790		0.200	
			555PATH1	06/22/06	10	Primary	0.500		0.120	ND	0.420		0.170	ND	0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.740		0.220	
			555PATH2	06/22/06	10	Primary	1.700		0.130	ND	0.450		1.800		0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.690		0.230	
						Number of Samples	3		3		3		3		3		3		3		3		3		3		3	
						Number of Detects	3		0		3		1		0		0		0		0		0		3		3	
						Minimum Detection	0.450		0.000		0.420		1.800		0.000		0.000		0.000		0.000		0.000		0.690		0.200	
						Maximum Detection	1.700		0.000		0.450		1.800		0.000		0.000		0.000		0.000		0.000		0.790		0.230	
455 E. Middlefield Rd.		1	455-P-1-May6	05/06/03	24	Primary	NT		NT		NT		0.150	ND	0.036	ND	NT		NT		0.110	ND	NT		NT		NT	
			455-P-1-May13	05/13/03	24	Primary	NT		NT		NT		0.120	J	0.045	ND	NT		NT		0.140	ND	NT		NT		NT	
			455-P-1-Sept24	09/24/03	24	Primary	NT		NT		NT		1.200		0.039	ND	NT		NT		0.120	ND	NT		NT		NT	
			455-P-1-Oct2	10/02/03	24	Primary	NT		NT		NT		0.950		0.043	ND	NT		NT		0.130	ND	NT		NT		NT	
						Number of Samples	0		0		0		4		4		0		0		4		0		0		0	
						Number of Detects	0		0		0		3		0		0		0		0		0		0		0	
						Minimum Detection	0.000		0.000		0.000		0.120		0.000		0.000		0.000		0.000		0.000		0.000		0.000	
						Maximum Detection	0.000		0.000		0.000		1.200		0.000		0.000		0.000		0.000		0.000		0.000		0.000	

TABLE 4-8
RESULTS OF PATHWAY SAMPLES - COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform	1,1-DCA		PCE	TCE	VC		1,2-DCB	1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA
487 E. Middlefield Rd.	Before mitigation	1	487-P-1-May6	05/06/03	24	primary	NT	NT		NT	1.100	0.043	ND	NT	NT		0.130	ND	NT		NT	NT
			487-P-1-May13	05/13/03	24	primary	NT	NT		NT	0.940	0.044	ND	NT	NT		0.140	ND	NT		NT	NT
						Number of Samples	0	0		0	2	2		0	0		2		0		0	0
						Number of Detects	0	0		0	2	0		0	0		0		0		0	0
						Minimum Detection	0.000	0.000		0.000	0.940	0.000		0.000	0.000		0.000		0.000		0.000	0.000
						Maximum Detection	0.000	0.000		0.000	1.100	0.000		0.000	0.000		0.000		0.000		0.000	0.000
	After sealing of some conduits	1	487-P-1-Sept24	09/24/03	24	Primary	NT	NT		NT	1.100	0.045	ND	NT	NT		0.140	ND	NT		NT	NT
			487-P-1-Oct2	10/02/03	24	Primary	NT	NT		NT	1.200	0.042	ND	NT	NT		0.130	ND	NT		NT	NT
						Number of Samples	0	0		0	2	2		0	0		2		0		0	0
						Number of Detects	0	0		0	2	0		0	0		0		0		0	0
						Minimum Detection	0.000	0.000		0.000	1.100	0.000		0.000	0.000		0.000		0.000		0.000	0.000
						Maximum Detection	0.000	0.000		0.000	1.200	0.000		0.000	0.000		0.000		0.000		0.000	0.000
425 National Ave.		1	B1	09/18/03	8	Primary	NT	0.140	ND	0.350	8.000	1.600		NT	0.068	ND	0.140	ND	0.680	ND	2.200	0.240
			B2	09/18/03	8	Primary	NT	0.140	ND	0.330	8.800	0.750		NT	0.068	ND	0.140	ND	0.680	ND	2.100	0.240
			B3	09/18/03	8	Primary	NT	0.130	ND	0.330	10.000	1.200		NT	0.066	ND	0.130	ND	0.660	ND	2.200	0.250
			B4	09/18/03	8	Primary	NT	0.130	ND	0.430	9.900	0.920		NT	0.066	ND	0.130	ND	0.660	ND	2.200	0.260
			E1	09/18/03	8	Primary	NT	0.140	ND	0.500	6.600	0.700		NT	0.069	ND	0.140	ND	0.690	ND	2.400	0.200
			E2	09/18/03	8	Primary	NT	0.130	ND	0.410	18.000	1.200		NT	0.065	ND	0.130	ND	0.650	ND	3.400	0.340
			I1	09/18/03	8	Primary	NT	0.130	ND	0.270	6.000	0.062		NT	0.066	ND	0.130	ND	0.660	ND	1.600	0.270
			I2	09/18/03	8	Primary	NT	0.130	ND	0.340	7.400	0.690		NT	0.066	ND	0.130	ND	0.660	ND	2.200	0.230
			R1	09/18/03	8	Primary	NT	0.130	ND	0.370	7.500	0.780		NT	0.066	ND	0.130	ND	0.660	ND	1.900	0.250
			R2	09/18/03	8	Primary	NT	0.130	ND	5.700	8.200	0.940		NT	0.066	ND	0.130	ND	0.660	ND	2.000	0.260
			R3	09/18/03	8	Primary	NT	0.130	ND	0.320	7.000	0.800		NT	0.065	ND	0.130	ND	0.650	ND	1.900	0.230
			R4	09/18/03	8	Primary	NT	0.130	ND	0.350	7.100	0.880		NT	0.066	ND	0.130	ND	0.660	ND	2.000	0.240
			R5	09/18/03	8	Primary	NT	0.130	ND	0.460	7.000	1.600		NT	0.065	ND	0.130	ND	0.650	ND	2.000	0.240
			R6	09/18/03	8	Primary	NT	0.130	ND	0.390	7.200	1.500		NT	0.066	ND	0.130	ND	0.660	ND	2.100	0.240
			R7	09/18/03	8	Primary	NT	0.130	ND	0.420	7.500	0.850		NT	0.066	ND	0.130	ND	0.660	ND	2.000	0.240
			R8	09/18/03	8	Primary	NT	0.130	ND	0.310	7.600	0.860		NT	0.065	ND	0.130	ND	0.650	ND	1.900	0.220
						Number of Samples	0	16		16	16	16		0	16		16		16		16	16
						Number of Detects	0	0		16	16	16		0	0		0		0		16	16
						Minimum Detection	0.000	0.000		0.270	6.000	0.062		0.000	0.000		0.000		0.000		1.600	0.200
						Maximum Detection	0.000	0.000		5.700	18.000	1.600		0.000	0.000		0.000		0.000		3.400	0.340

Notes:

1. AM and PM Samples (collected in the morning and afternoon at one location) are counted as one sample
2. The TAGA results are not counted in this summary table
3. ND denotes Non-detected; NT denotes not tested
4. Concentrations are in ug/m3.
5. Co-located samples are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count
6. J flag is used when the value is between the method detection limit and the reporting limit.

TABLE 4-9
INFORMRATION ON VENTILATION SYSTEMS IN SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Ventilation		Comments
			Description	Calculations	
313 Fairchild Drive	-	1	4 Trane Intellipak - 22,000 cfm; economizer 1 Trane Voyager - 6,000 cfm; economizer	Approx. Condt. Bldg. Area: 67,680 sqft. Estimated Outside Air Volumetric Flow Rate:18,800 cfm Outside Air Exchange Rate per hr.: 1.85	Indoor TCE concentrations ranged between ND and 0.56 ug/m3, which is less than the interim action level of 2.7 ug/m3.
323 Fairchild Drive	-	1	4 Trane Intellipak - 22,000 cfm; economizer 3 AAON - 10,000 cfm; damper	Approx. Condt. Bldg. Area: 67,680 sqft. Estimated Outside Air Volumetric Flow Rate:17,600 cfm (excluding AAON units) Outside Air Exchange Rate per hr.: 1.73	Indoor TCE concentrations ranged between ND and 0.50 ug/m3, which is less than the interim action level of 2.7 ug/m3.
545 N. Whisman Rd.	-	1	4 Trane Intellipak - 24,000 cfm; economizer 1 Trane Voyager - 3,000 cfm; economizer	Approx. Condt. Bldg. Area: 75,634 sqft. Estimated Outside Air Volumetric Flow Rate:19,800 cfm Outside Air Exchange Rate per hr.: 1.75	Indoor TCE concentrations ranged from ND to 3.4 ug/m3. Only one sample and its duplicate collected in May 2003 was above the interim action level of 2.7 ug/m3. Five other samples taken from the same location showed ND.
515 N. Whisman Rd.	-	1	4 Trane Intellipak - 24,000 cfm; economizer 1 Trane Voyager - 3,000 cfm; economizer	Approx. Condt. Bldg. Area: 75,634 sqft. Estimated Outside Air Volumetric Flow Rate:19,200 cfm Outside Air Exchange Rate per hr.: 1.70	Indoor TCE concentrations ranged between ND and 0.18 ug/m3, which is less than the interim action level of 2.7 ug/m3.
644 N. Whisman Rd.	Before Mitigation	B 1 & 2	No operating mechanical ventilation		Before mitigation, indoor TCE concentrations ranged between 190 and 490 ug/m3 in the basement and between 15 and 94 ug/m3 on the first and second floors, which is above the interim action level of 2.7 ug/m3. After the spring 2003 sampling event, sumps in the unoccupied basement that collect groundwater were sealed, and two exhaust fans were installed in the basement to exhaust the air. Openings in the floor between the basement and the first floor and luvers were installed in the outside plenum to facilitate flow of fresh air when the fans are operating. Confirmation samples were taken following mitigation. TCE concentrations in the first floor and second floor ranged from ND to 0.59 ug/m3, which is below 2.7 ug/m3. The basement showed significant decrease in concentrations, but TCE concentrations ranged from 14 to 43 ug/m3, which remains above the interim action level of 2.7 ug/m3. The basement is not occupied. The building was sold and vacated in 2007 and will be demolished in 2008.
	After mitigation (sealing of sumps and installation of exhaust system in the basement)	B 1 & 2	Two exaust fans installed in the basement, at 6000 cfm each.		
401 National Ave.	Before Mitigation	1	No operating mechanical ventilation		Mitigation measures include sealing of conduits in the utility room, and operation of an existing exhaust fan in the utility room. Louvers between the ventilated utility room and the central offices were opened to enhance air circulation in the internal offices. After mitigation measures, indoor TCE air concentrations ranged between ND and 2.2 ug/m3, which is less than the interim action level of 2.7 ug/m3.
	After mitigation (sealing of sumps and installation of exhaust system in utility room)	1	Existing exhaust fan in utility room reconnected to power supply and operated, louvers between utility room and central offices open to enhance air flow.		

TABLE 4-9
INFORMRATION ON VENTILATION SYSTEMS IN SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Ventilation		Comments
			Description	Calculations	
464 Ellis St.	-	1	Information not available, but it is known that the building is constructed similarly to 468 Ellis St. 2 Trane Intellipak - 22,000 cfm; economizer 2 Trane Voyager - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 85,856 sqft. Estimated Outside Air Volumetric Flow Rate:16,800 cfm Outside Air Exchange Rate per hr.: 1.3	Indoor TCE concentrations ranged between ND and 0.27 ug/m3, which is less than the interim action level of 2.7 ug/m3.
466 Ellis St.	-	1	3 Trane Intellipak - 24,000 cfm; economizer	Approx. Condt. Bldg. Area: 80,748 sqft. Estimated Outside Air Volumetric Flow Rate:14,400 cfm Outside Air Exchange Rate per hr.: 1.18	Indoor TCE concentrations ranged between ND and 0.21 ug/m3, which is less than the interim action level of 2.7 ug/m3.
468 Ellis St.	-	1	2 Trane Intellipak - 22,000 cfm; economizer 2 Trane Voyager - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 85,856 sqft. Estimated Outside Air Volumetric Flow Rate:16,800 cfm Outside Air Exchange Rate per hr.: 1.3	Indoor TCE concentrations ranged between ND and 0.22 ug/m3, which is less than the interim action level of 2.7 ug/m3.
389 N. Whisman Rd.	-	1	2 Trane Intellipak - 22,000 cfm; economizer 2 Trane Voyager - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 65,000 sqft. Estimated Outside Air Volumetric Flow Rate:16,800 cfm Outside Air Exchange Rate per hr.: 1.72	Indoor TCE concentrations ranged between ND and 2.1 ug/m3, which is less than the interim action level of 2.7 ug/m3.
399 N. Whisman Rd.	-	1	4 Trane Intellipak - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 65,000 sqft. Estimated Outside Air Volumetric Flow Rate:16,000 cfm Outside Air Exchange Rate per hr.: 1.64	All indoor TCE concentrations were ND, which is less than the interim action level of 2.7 ug/m3.
369 N. Whisman Rd.	-	1	4 Trane Intellipak - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 65,000 sqft. Estimated Outside Air Volumetric Flow Rate:16,000 cfm Outside Air Exchange Rate per hr.: 1.64	Indoor TCE concentrations ranged between ND and 1.6 ug/m3, which is less than the interim action level of 2.7 ug/m3.
379 N. Whisman Rd.	-	1	2 Trane Intellipak - 22,000 cfm; economizer 2 Trane Voyager - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 65,000 sqft. Estimated Outside Air Volumetric Flow Rate:16,800 cfm Outside Air Exchange Rate per hr.: 1.72	Indoor TCE concentrations ranged between ND and 0.19 ug/m3, which is less than the interim action level of 2.7 ug/m3.
660 National Ave.	Before mitigation	1	No detailed information available. Believed to have no to minimal makeup air.		Mitigation measures included refurbishing the ventilation system to induce more makeup air. Indoor air samples collected after implementation of mitigation measures showed non-detectable levels for TCE. The building was sold and vacated in 2007 and will be demolished in 2008.
	After mitigation (ventilation system was refurbished)	1	1 Carrier 10 ton - 4,000 cfm; economizer 1 2-ton cooling RTU (inoperable @ survey) 1 Bryant 4-ton - 1,600 cfm; economizer 3 Trane 5 ton - 2,000 cfm; economizer	Approx. Condt. Bldg. Area: 10350 sqft. Estimated Outside Air Volumetric Flow Rate:1,740 cfm Outside Air Exchange Rate per hr.: 1.26	

TABLE 4-9
INFORMRATION ON VENTILATION SYSTEMS IN SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Ventilation		Comments
			Description	Calculations	
401 E. Middlefield	Ventilation system on, building unoccupied,	1	2 Trane 50 ton - 20,000 cfm; economizer 1 Trane 3-ton - 1,200 cfm; economizer 1 Carrier 4-ton - 1,600 cfm; economizer 1 Carrier 3.5 ton - 1,400 cfm; economizer	Approx. Condt. Bldg. Area: 28,300 sqft. Estimated Outside Air Volumetric Flow Rate:6,508 cfm Outside Air Exchange Rate per hr.: 1.53	The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE concentrations between 4.1 and 7.6 ug/m3, which is above the interim action level of 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, indoor TCE concentrations ranged between ND and 0.7 ug/m3, which is less than the interim action level of 2.7 ug/m3.
	Ventilation system off, building unoccupied	1	Ventilation system off		
415 E. Middlefield	Ventilation system on, building unoccupied,	1	2 Trane 7.5 ton - 3,000 cfm; economizer 3 Trane 6.25 ton - 2,600 cfm; economizer 2 Trane 15 ton - 6,000 cfm; economizer 1 Trane 3 ton - 1,200 cfm; damper 3 Trane 6.25 ton - 2,600 cfm; damper 1 Trane 12.5 ton - 5,000 cfm; damper 1 Trane 5 ton - 2,000 cfm; damper 1 Trane 12.5 ton - 5,000 cfm; no out air 1 Carrier 3.5 ton - 1,400 cfm; economizer 1 Carrier 1.5 ton - 600 cfm; damper	Approx. Condt. Bldg. Area: 29,000 sqft. Estimated Outside Air Volumetric Flow Rate:8,530 cfm Outside Air Exchange Rate per hr.: 1.96	The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE concentrations between 5.2 and 7.6 ug/m3, which is above the interim action level of 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, indoor TCE concentrations ranged between ND and 4.8 ug/m3. Only one sample was above the interim action level of 2.7 ug/m3 and EPA's co-located sample did not confirm this value (ND).
	Ventilation system off, building unoccupied	1	Ventilation system off		
370 Ellis Street Bldg A	Weekend	1	Off on Weekend 2 McQuay 106 ton - 42,000 cfm; economizer	Approx. Condt. Bldg. Area: 97,340 sqft. Estimated Outside Air Volumetric Flow Rate: 16,800 cfm Outside Air Exchange Rate per hr.: 1.15 Note (direct readings during September sampling event showed Exchange Rate of 1.4/hr)	Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on weekdays. One indoor location showed TCE up to 3.7 ug/m3 on the weekend. When samples were collected on a weekday at the same location, the maximum TCE concentration was 0.45 ug/m3, which is lower than the interim action level of 2.7 ug/m3.
	Weekday	1			
370 Ellis Street Bldg B	Weekend	1	Off on Weekend 2 McQuay 106 ton - 42,000 cfm; economizer	Approx. Condt. Bldg. Area: 95,750 sqft. Estimated Outside Air Volumetric Flow Rate: 16,800 cfm Outside Air Exchange Rate per hr.: 1.17	Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on a weekday. Three indoor locations sampled on the weekends showed TCE up to 5.0, 3.0, and 8.0 ug/m3. When samples were collected on weekdays at these same location, the TCE concentration was non-detect in all three.
	Weekday	1			
380 Ellis Street Bldg C	Weekend	1	Off on Weekend 3 McQuay 106 ton - 42,000 cfm; economizer	Approx. Condt. Bldg. Area: 149,400 sqft. Estimated Outside Air Volumetric Flow Rate: 25,200 cfm Outside Air Exchange Rate per hr.: 1.12 Note (direct readings during September sampling event showed Exchange Rate of 1.4/hr)	Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two round of sampling were performed on a weekday. Only one weekend sample at an indoor location showed TCE of 2.8 ug/m3. The other samples collected on different days at the same location in the weekend and weekday showed TCE ranging between 0.24 and 0.32 ug/m3, which is lower than the interim action level of 2.7 ug/m3.
	Weekday	1			

TABLE 4-9
INFORMRATION ON VENTILATION SYSTEMS IN SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Ventilation		Comments
			Description	Calculations	
380 Ellis Street Bldg D	Weekend	1	Off on Weekend 2 McQuay 106 ton - 42,000 cfm; economizer	Approx. Condt. Bldg. Area: 101,200 sqft. Estimated Outside Air Volumetric Flow Rate: 16,800 cfm Outside Air Exchange Rate per hr.: 1.11 Note (direct readings during September sampling event showed Exchange Rate of 1.4/hr)	The HVAC system operates in this building on the weekend. All samples showed TCE concentrations lower than the interim action level of 2.7 ug/m3.
350 Ellis Street Bldg E	Weekend	1	Off on Weekend 1 MacQuay 57 ton - 24,000 cfm; economizer 1 McQuay 23 ton - 9,200 cfm; economizer	Approx. Condt. Bldg. Area: 23,000 sqft. Estimated Outside Air Volumetric Flow Rate: 11,600 cfm Outside Air Exchange Rate per hr.: 3.36	Because of access demands, four rounds of sampling were conducted on the weekend. The HVAC operates only in the Gym area on the weekend. Alls samples showed TCE concentrations less than the interim action level of 2.7 ug/m3. Weeday samples did not detect TCE.
425 National Avenue	Unfinished unoccupied building with no ventilation system	1	Unfinished unoccupied building with no ventilation system. Outside air exchange rate was calculated using a tracer test, and was found to be 0.33/hr.		Indoor TCE concentrations ranged from 7.1 to 8.7 ug/m3, which is above the interim action level of 2.7 ug/m3. The building is not finished, unoccupied, and does not have a ventilation system installed.
645 National Avenue		1	South Suite: Office - 1 Trane 4 ton - 1600 cfm; no outside air Warehouse - no mechanical ventilation North Suite: Office - 2 York 2-ton; economizer 1 Trane 30-ton; economizer Warehouse - no mechanical ventilation	South: No calculations peformed North: Calculations performed for office area only Approx. Condt. Bldg. Area: 3,400 sqft ventilated area; 8,300 sqft warehouse. Estimated Outside Air Volumetric Flow Rate: 2,640 cfm Outside Air Exchange Rate per hr.: 5.2	Building divided in two. Back warehouses are not ventilated. Indoor TCE concentrations ranged from ND to 2.2 ug/m3, which is below the interim action level of 2.7 ug/m3.
670 National Avenue		1	1 Trane 7.5 ton - 3,000 cfm; no outside air 1 BDP 7.5 ton; economizer, not operating 2 Bryant 4-ton - 1,600 cfm; manual damper	Calculations performed for office area only Approx. Condt. Bldg. Area: 9,960 sqft. Office; 4,100 sqft. warehouse Estimated Outside Air Volumetric Flow Rate: 480 cfm Outside Air Exchange Rate per hr.: 70 occupants Office = 20 cfm/person 1400 cfm 0.3	Back warehouse is not ventilated. The front portion of the building does not have sufficient outside makeup air. Indoor TCE concentrations ranged from 2.2 to 7.5 ug/m3, which is above the interim action level of 2.7 ug/m3. The building was sold and vacated in 2007 and will be demolished in 2008.
555 Ellis Street		1	5 Rheem 5 ton - 2,000 cfm; manual damper 2 Rheem 3 ton - 1,200 cfm; manual damper 2 Carrier 7.5 ton - 3,000 cfm; economizer 2 York 3-ton - 1,200 cfm; manual damper 2 York 12.5 ton - 5,000 cfm; manual damper	Approx. Condt. Bldg. Area: 29,550 sqft. Estimated Outside Air Volumetric Flow Rate: 5,392 cfm Outside Air Exchange Rate per hr.: 1.22 Note: Air exchange rate based on direct measurements of HVAC units.	All Indoor TCE concentrations were ND, which is less than the interim action level of 2.7 ug/m3.
460 E. Middlefield Road		1	1 Carrier 3.5 ton - 1,400 cfm; manual damper 3 Carrier 5 ton - 2,000 cfm; manual damper 1 Carrier 5-ton - 2,000 cfm; manual damper 1 Carrier 3 ton - 1,200 cfm; manual damper 1 Day & Night 5-ton - 2,000 cfm; no outside air 1 Carrier 7.5 ton - 3,000 cfm; no outside air 1 Carrier 7.5 ton - 3,000 cfm; economizer	Approx. Condt. Bldg. Area: 15,600 sqft. Estimated Outside Air Volumetric Flow Rate: 2,305 cfm Outside Air Exchange Rate per hr.: 0.99	All Indoor TCE concentrations were ND, which is less than the interim action level of 2.7 ug/m3.

TABLE 4-9
INFORMRATION ON VENTILATION SYSTEMS IN SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Ventilation		Comments
			Description	Calculations	
355/365 E. Middlefield Road	Before mitigation	1	355 E. Middlefield was observed to have inadequate makeup air		Before mitigation indoor TCE concentrations ranged between 0.14 and 1.4 ug/m3. Ventilation system was retrofitted to increase outside makeup air because of TCE concentrations found in pathway samples collected in cracks. Following mitigation indoor TCE concentrations ranged between ND and 0.3 ug/m3, which is less than the interim action level of 2.7 ug/m3. All pathway samples collected after mitigation were also below the interim action level.
	After mitigation (sealing of cracks and refurbishing ventilation system to increase makeup air)	1	Details not available	Approx. Condt. Bldg. Area: 23,000 sqft. Estimated Outside Air Volumetric Flow Rate:4,140 cfm Outside Air Exchange Rate per hr.: 1.2 Note: Performed during direct measurements of air exchange rate after the HVAC system was modified.	
455 E. Middlefield Road	-	1	Information not available		Indoor TCE concentrations ranged from ND to 1.7 ug/m3, which is less than the interim action level of 2.7 ug/m3.
487 E. Middlefield Road	-	1	Information not available		Before mitigation indoor TCE concentrations ranged between ND and 0.22 ug/m3, which is less than the interim action level of 2.7 ug/m3. Regardless, some open conduits in the utility room were sealed.
501 Ellis Street	Portion of the building is unoccupied. The HVAC system was not operating in the unoccupied portion of the building in fall 2003.	1	North Suite serviced by 8 Trane Rooftop Package Units. Remaining building serviced by 5 units. 3 Ton to 15 Ton capacity.		Four samples (including duplicates) at one location in fall 2003 showed TCE ranging from 4.5 to 5.8 ug/m3. Former and subsequent samples at the same location showed TCE less than 2.7 ug/m3, ranging from ND 0.19 to 1.7 ug/m3. The fall 2003 samples were attributed to improper operation of the HVAC system in the vacant portion of the building where these samples were collected. A sample at a different location showed 11 ug/m3; however, EPA's co-located sample did not detect TCE at that location. All subsequent samples at the same location did not detect TCE. The remaining indoor TCE concentrations ranged from ND to 2.5 ug/m3, which is less than the interim action level of 2.7 ug/m3.
15	Before mitigation	1	Information not available. Building is mechanically ventilated. Ventilation is through conventional ceiling ducting.		The HVAC system parameters were altered (% fresh air/ventilation rate). The HVAC system was not physically modified. Following mitigation TCE concentrations ranged from ND to 0.607 ug/m3, which is less than the interim action level of 2.7 ug/m3.
	After mitigation (refurbish ventilation system to increase makeup air)	1	Increased makeup air between 30 and 100 %		
16	No mechanical ventilation	1	Building is not ventilated		
17	Unoccupied and unventilated basement	B	Basement is unoccupied and does not have mechanical ventilations		Indoor TCE concentrations ranged between 0.051 and 3.085 ug/m3. Of the 191 discrete indoor air samples, all but one sample (collected in the unoccupied basement), showed TCE concentrations less than the interim action level of 2.7 ug/m3. Outdoor air samples showed at certain times TCE greater than 2.7 ug/m3.
	Unventilated floor	1	First floor does not have mechanical ventilation		

TABLE 4-9
INFORMRATION ON VENTILATION SYSTEMS IN SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building Sampled	Sampling Conditions	Sampled Floor	Ventilation		Comments
			Description	Calculations	
20	Unoccupied and unventilated building	1	Building is unoccupied and does not have mechanical ventilation. TCE concentrations reduced to below 2.7 ug/m3 when the building was opened up to allow for natural ventilation.		
N210	-	1&2	Ducts connected to subfloor plenum, which is ventilated. Air was pushed to the subfloor plenum, and portions of the first floor was ventilated through grates in the floor. In January 2006, system was redesigned to feed the air through ceiling ducts. The system provides 100% makeup air.		In 2006, NASA retrofitted the ventilation system in the building. All indoor air TCE concentrations were reduced to below 2.7 ug/m3.
N211	-	1&2	Building is mechanically ventilated. Runs 5AM-10PM. Ventilation is through conventional ceiling ducting. Modular damper for Outside Air 10%-100%.		Indoor TCE concentrations ranged between ND and 0.419 ug/m3, which is less than the interim action level of 2.7 ug/m3.
N243	-	B&1	Building is mechanically ventilated. Ventilation is through conventional ceiling ducting. Modular damper with 10%-100% outside air in AHU area (5AM-10PM). Rest of ventilation is set by user.		Indoor TCE concentrations ranged between ND and 0.461 ug/m3, which is less than the interim action level of 2.7 ug/m3.
N239A	-	1	Building is mechanically ventilated. Ventilation is through conventional ceiling ducting. HVAC operates 24hrs seven days/week with 100% outside makeup air.		Indoor TCE concentrations ranged between 0.446 and 0.992 ug/m3, which is less than the interim action level of 2.7 ug/m3.
N259	-	1	Building is mechanically ventilated. Ventilation is through conventional ceiling ducting. Local user controls/sets operation hours and mode.		Indoor TCE concentrations ranged between 0.370 and 0.605 ug/m3, which is less than the interim action level of 2.7 ug/m3.

Notes:
1. AM and PM samples (samples collected in the morning and afternoon at one location) are counted as one sample
2. For NASA data, only the 24-hr samples were used in this summary.
3. The date range of outdoor data is the same as that for the indoor data
4. The TAGA results are not counted in this summary table
5. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count.
6. The air exchange rate assumes fresh air flow rates based on minimal settings of economizer, and estimated air flow rate in manual dampers. The air exchange rate can vary during the year based on outside temperature and other parameters.

TABLE 4-10
INFORMATION COLLECTED FOR UN-SAMPLED COMMERCIAL BUILDINGS SOUTH OF US HWY 101
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Bldg. Address	# of Floors	Building Type	Building Age	Occupied/ Unoccupied	Building Footprint	Vapor Barrier Present	Soil Source Area	Avg. Depth to Shallow GW (feet bgs)	TCE Groundwater Concentration A: <100; B: 100<TCE<1000 C: >1000	Mechanical Ventilation	Ventilation Description	Calculation
265 Whisman Drive	1	slab-on-grade	1966	occupied	14,682	No	No	17	A	Yes	2 Trane - 1,200 cfm supply; economizer 1 York - 2,000 cfm; no outside air 1 Trane - 4,400 cfm; economizer 1 Carrier - 8,000 cfm; economizer 1 Carrier - 4,000 cfm; economizer 1 Carrier - 1,200 cfm; no outside air	Approx. Condt. Bldg. Area: 13,800 sqft. Estimated Outside Air Volumetric Flow Rate: 2,820 cfm Outside Air Air-Change Rate per hr.: 1.4
299 Fairchild Drive	2	Slab-on-Grade	1997	Occupied	6,163	No	No	10	A	Yes	2 Trane - 1,600 cfm; manual dampers 1 Trane - 600 cfm; manual dampers 1 Trane - 2,400 cfm; manual dampers 1 Trane - 3,000 cfm; manual dampers	Approx. Condt. Bldg. Area: 6,400 sqft. Estimated Outside Air Volumetric Flow Rate: 1,065 cfm Outside Air Air-Change Rate per hr.: 1.1
301 N. Whisman Rd.	No Access. Building referred to EPA.											
325 Middlefield Rd.	1	slab-on-grade	1966	occupied	21,726	No	No	16	A	Yes	4 York - 2,000 cfm; manual damper 1 BDP - 3,000 cfm; economizer 1 Carrier - 3,000 cfm; economizer 1 Carrier - 800 cfm; manual damper 1 Carrier - 2,000 cfm; no outside air	Approx. Condt. Bldg. Area: 14,100 sqft. Estimated Outside Air Volumetric Flow Rate: 2,220 cfm Outside Air Air-Change Rate per hr.: 1.0
331/333 Fairchild Drive	No Access. Building referred to EPA.											
335 Middlefield Rd.	1	slab-on-grade	1982	unoccupied	14,054	No	No	16	A	Low	1 Trane - 800 cfm; manual damper 2 Carrier - 800 cfm; no outside air 2 Carrier - 1,000 cfm; no outside air 2 Carrier - 4,000 cfm; economizer 1 Carrier - 1,600 cfm; no outside air 1 Carrier - 1,400 cfm; no outside air	Approx. Condt. Bldg. Area: 14,400 sqft. Estimated Outside Air Volumetric Flow Rate: 1,025 cfm Outside Air Air-Change Rate per hr.: 0.8
340/344/350/348 E. Middlefield Rd.	1	slab-on-grade	1965	occupied	19,530	No	No	13	B	340/348/350-Yes 344-Low	Suite 340 2 Carrier - 3,000 cfm, manual damper Suite 344 1 Carrier - 3,000 cfm; no outside air 1 Carrier - 3000 cfm, manual damper Suite 348 1 Carrier - 3,000 cfm; manual damper 1 BDP - 2,000 cfm; manual damper Suite 350 1 BDP - 4,000 cfm; manual damper 1 Carrier - 4,000 cfm; manual damper	340/344/348/350 Approx. Condt. Bldg. Area: 4,500/4,500/4,500/4,500 sqft. Estimated Outside Air Volumetric Flow Rate: 740/250/960/915 cfm Outside Air Air-Change Rate per hr.: 1.1/0.4/1.4/1.4
345 Middlefield Rd.	1	slab-on-grade	1959	occupied	16,264	No	No	15	B	Yes	2 Carrier - 2,000 cfm; manual damper 2 Trane - 2,000 cfm; economizer 1 York - 3,000 cfm; manual damper 1 York - 2,000 cfm; manual damper 2 Lennox - 1,200 cfm; manual damper 1 Trane - 8,000 cfm; economizer	Approx. Condt. Bldg. Area: 14,400 sqft. Estimated Outside Air Volumetric Flow Rate: 2,635 cfm Outside Air Air-Change Rate per hr.: 1.2
411/415 Fairchild Drive	1	slab-on-grade/pit	1968 with major renovations in 1978	occupied	16,476	No	No	8	A	411-Yes 415-unknown	411 Fairchild Drive: 1 Goodman - 2,000 cfm ; manual outside air hood; serves front office area only Several exhaust fans in warehouse and storage area 415 Fairchild Drive: Vacant. This section of the building was not visited.	411 Fairchild Drive: Approx. Condt. Bldg. Area: 3,000 sqft. Estimated Outside Air Volumetric Flow Rate: 500 cfm Outside Air Air-Change Rate per hr.: 1.1 415 Fairchild Drive: No calculations were performed
440 E. Middlefield Rd.	No Access. Building referred to EPA.											

TABLE 4-10
INFORMATION COLLECTED FOR UN-SAMPLED COMMERCIAL BUILDINGS SOUTH OF US HWY 101
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Bldg. Address	# of Floors	Building Type	Building Age	Occupied/ Unoccupied	Building Footprint	Vapor Barrier Present	Soil Source Area	Avg. Depth to Shallow GW (feet bgs)	TCE Groundwater Concentration A: <100; B: 100<TCE<1000 C: >1000	Mechanical Ventilation	Ventilation Description	Calculation
448 E. Middlefield Rd.	1	slab-on-grade	unknown-1990s	occupied	14,283	No	No	11	A	Yes	3 Trane - 4,000 cfm; economizer 1 Trane - 5,000 cfm; economizer	Approx. Condt. Bldg. Area: 12,500 sqft. Estimated Outside Air Volumetric Flow Rate: 2,550 cfm Outside Air Air-Change Rate per hr.: 1.4
450 National Ave.	No Access. Building referred to EPA.											
465 Fairchild Drive Building A	2	slab-on-grade	1980	occupied; 121/124/125/126/102/ 103 unoccupied	21,169	No	No	7	A	Floor 1: Low Floor 2: Yes	Floor 1: 3 BDP - 1,400 cfm; manual damper 2 BDP - 1,200 cfm; manual damper 1 BDP - 800 cfm; manual damper 2 BDP - 2,000 cfm; manual damper Floor 2: 3 BDP - 1,600 cfm, manual damper 10 BDP - 1,200 cfm, manual damper 4 BDP - 1,000 cfm, manual damper 1 BDP - 1,400 cfm, manual damper	Floor 1/Floor 2 Approx. Condt. Bldg. Area: 20,000/20,000 sq ft Estimated Outside Air Volumetric Flow Rate: 1,700/3,195 cfm Outside Air Air-Change Rate per hr.: 0.57/1.1
465 Fairchild Drive Building B	2	slab-on-grade	1980	occupied; 230/207 unoccupied	20,669	No	No	8	A	Yes	Floor 1: 2 BDP - 800 cfm; manual damper 3 BDP - 1,200 cfm; manual damper 1 Trane - 2,000 cfm; no outside air 2 Trane - 1,200 cfm; manual damper 2 BDP - 2,000 cfm, manual damper 1 BDP - 1,400 cfm; manual damper 1 BDP - 800 cfm; no outside air 1 BDP - 1,600 cfm; manual damper Floor 2: 4 BDP - 1,000 cfm, manual damper 7 BDP - 1,200 cfm, manual damper 3 BDP - 800 cfm, no outside air 1 Day & Night - 1,000 cfm, no outside air 2 Trane - 1,200 cfm; manual damper 1 BDP - 1,400 cfm; manual damper	Floor 1/Floor 2 Approx. Condt. Bldg. Area: 20,000/20,000 sqft Estimated Outside Air Volumetric Flow Rate: 2,825/2,825 cfm Outside Air Air-Change Rate per hr.: 0.94/0.94
455 National Ave.	1	slab-on-grade	1966	occupied	16,784	No	No	11	A	Low	2 Trane - 4,000 cfm - no outside air 2 Carrier - 1,400 cfm - manual damper 2 Trane - 3,000 cfm - no outside air 1 BDP - 1,600 cfm - manual damper	Approx. Condt. Bldg. Area: 17,760 sqft Estimated Outside Air Volumetric Flow Rate: 710 cfm Outside Air Air-Change Rate per hr.: 0.27
490 E. Middlefield Rd.	2	slab-on-grade	1997	occupied	19,984	No	No	10	A	Yes	2 Trane - 30,000 cfm; economizer 2 Trane furnaces - no outside air 3 Trane - process cooling only - no outside air 2 Trane - process cooling only - no outside air	Approx. Condt. Bldg. Area: 42,900 sqft Estimated Outside Air Volumetric Flow Rate: 9,000 cfm Outside Air Air-Change Rate per hr.: 1.4
491 Fairchild Drive	2	slab-on-grade	unknown-post 1995	occupied	11,475	No	No	7	A	Yes	1 Trane Intellipak - 24,000 cfm; economizer	Approx. Condt. Bldg. Area: 10,300 sqft Estimated Outside Air Volumetric Flow Rate: 3,600 cfm Outside Air Air-Change Rate per hr.: 2.3
486 Ellis Street	1	slab-on-grade	unknown-70s/80s	occupied	18,004	No	No	9	A	Low	1 Rheem - 2,000 cfm; no outside air 2 warehouse exhaust fans 300cfm each These units are in the occupied portion of the building. Calculations were not performed for vacant portion.	Approx. Condt. Bldg. Area: 10,500 sq ft. Estimated Outside Air Volumetric Flow Rate: 600 cfm Outside Air Air-Change Rate per hr.: 0.38

TABLE 4-10
INFORMATION COLLECTED FOR UN-SAMPLED COMMERCIAL BUILDINGS SOUTH OF US HWY 101
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Bldg. Address	# of Floors	Building Type	Building Age	Occupied/ Unoccupied	Building Footprint	Vapor Barrier Present	Soil Source Area	Avg. Depth to Shallow GW (feet bgs)	TCE Groundwater Concentration A: <100; B: 100<TCE<1000 C: >1000	Mechanical Ventilation	Ventilation Description	Calculation
500 Ellis Street	No Access. Building referred to EPA.											
515 Ellis Street	1	slab-on-grade	1973	unoccupied	30,527	No	No	8	A	Yes	1 Carrier - 6,000 cfm; economizer 2 Carrier - 4,000 cfm; economizer 3 Carrier - 2,000 cfm; manual damper 2 Carrier - 3,200 cfm; manual damper 1 Carrier - 6,000 cfm; economizer 1 Carrier - 1,200 cfm; manual damper	Approx. Condt. Bldg. Area: 30,600 sqft Estimated Outside Air Volumetric Flow Rate: 5,340 cfm Outside Air Air-Change Rate per hr.: 1.2
550 Ellis Street	No Access. Building referred to EPA.											
605 Ellis Street	2	slab-on-grade	2001	occupied	6,978	No	No	6	A	Yes	1 Trane Intellipak - 20,000 cfm; economizer	Approx. Condt. Bldg. Area: 14,900 sqft Estimated Outside Air Volumetric Flow Rate: 3,000 cfm Outside Air Air-Change Rate per hr.: 1.3
612/614/616/ 618/620 National Ave.	1	slab-on-grade	1962	occupied; 614/620 unoccupied	18,580	No	No	12	B	Low	612 National: 1 York - 1,200 cfm; manual damper 1 Trane - 2,000 cfm; no outside air 614 National: 2 Amana 1,600 cfm; no outside air 1 York- 1,200 cfm; manual damper 616 National: 1 Lennox - 4,000 cfm; manual damper 618 National: 1 Trane - 2,000 cfm; manual damper 1 York - 800 cfm; no outside air 620 National: 1 Trane - 1,200 cfm; manual damper 1 York - 1,000 cfm; no outside air	612/614/616/618/620 Approx. Condt. Bldg. Area: 2,550/3,400/5,000/2,550/ 2,550 sqft Estimated Outside Air Volumetric Flow Rate: 300/300/660/230/220 cfm Outside Air Air-Change Rate per hr.: 0.78/0.59/0.88/0.60/0.58
615 National Ave.	No Access. Building referred to EPA.											
625 Ellis Street	3	slab-on-grade	1972	occupied (may be a few vacant suites)	12,338	No	No	7	A	Low	3 York - 4,000 cfm; economizer 1 York - 3,000 cfm; economizer 5 York - 1,600 cfm; manual damper 3 York - 1,200 cfm; manual damper 3 York - 1,200 cfm; no outside air 2 York - 2,000 cfm; no outside air 1 York - 2,000 cfm; manual damper	Approx. Condt. Bldg. Area: 43,200 sqft Estimated Outside Air Volumetric Flow Rate: 5,500 cfm Outside Air Air-Change Rate per hr.: 0.85
625 National Ave.	3	slab-on-grade	1960	occupied	12,051	No	No	9	A	Low	3 Carrier - 3,000 cfm; economizer 2 Rudd- no outside air	Approx. Condt. Bldg. Area: 14,500 sqft Estimated Outside Air Volumetric Flow Rate: 1,800 cfm Outside Air Air-Change Rate per hr.: 0.83
630 National Ave.	No Access. Building referred to EPA.											
640 National Ave.	1	slab-on-grade	1964	occupied	15,054	No	No	11	B	None	1 Forced-air vertical gas-fired furnace with evap. coil; 2,000 cfm; no mechanized outside air ventilation	N/A - no means of ventilation are in place

TABLE 4-11
ESTIMATED NUMBER OF COMMERCIAL BUILDINGS NORTH OF HWY 101
WITHIN 5 ug/L TCE CONTOUR LINE
MOFFETT FIELD

Building Plans	All Buildings (by Building #)					Buildings over Navy Potential Sources	Buildings in Navy WATS Area	
Unoccupied to be Demolished	13	85	150	533	958		13	85
	14	107	151	547	992		14	118
	29	113	347	583C	N209	34	29	119
	34	118	512	941	N256	950	37	347
	37	119	525	942	T20-C	958	45	527
	45	148	526	944	T36-A	992	64	941
	64	149	527	945			81	942
	81			950				
Unoccupied to be Demolished (may be leased before demo)	574			951		574 951		
Occupied to be Demolished	**3**	111	155	544	583B	48	**3**	**126**
	6	**126**	156	554	T3-B	67	6	509
	12	146	476	566	T6-B	111	**12**	**510**
	31	152	503	567	T6-C	146	31	567
	48	153	509	596	T6-D	544		
	67	**154**	**510**	583A	T20-F			
Occupied to Stay	10	21	482	N237	N245			
	15	22	**556**	N239	N248		10	482
	16	23	N207	**N239A**	N248B	19	**15**	**N210**
	17	24	**N210**	N240	N248C	144	**16**	**N243**
	18	**76**	**N211**	**N243**	**N259**		**76**	N243A
	19	109	N213	N243A	T20-G			
	20	144	N219	N244				
Unoccupied/to Stay/to be Leased	2	33	83	464	hanger 1		2	83
			32				32	Hangar 1
							33	
Occupied/Future use is unknown		543	555			543 555		
Unoccupied/Future use is unknown	542	184	382	529		184	542	
TOTAL			**114**			**16**	**36**	

Notes:
1. Building numbers listed in **BOLD** indicates sampled building.
2. The number of buildings is estimated from information provided by NASA.
3. Navy Sources: Uninvestigated Navy source areas within MEW area of responsibility
4. WATS Area: Navy area of responsibility where the Navy is remediating the groundwater
5. Building plans were provided by NASA

TABLE 4-12
RESULTS OF INDOOR AND OUTDOOR SAMPLES - RESIDENTIAL
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Residence	Sampled Floor	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform	1,1-DCA	PCE	TCE		VC		1,2-DCB	1,1-DCE	cis-1,2-DCE		trans-1,2-DCE	Freon 113	1,1,1-TCA	
619B	1	0033-OR-245	9/3/2002	Indoor	24	Primary	NT	NT	NT	0.170	ND	0.082	ND	NT	NT	0.850	ND	NT	NT	NT	
619B	1	0033-OR-269(FD)	9/5/2002	Indoor	24	Duplicate	NT	NT	NT	0.190	ND	0.089	ND	NT	NT	0.890	ND	NT	NT	NT	
619B	1	0033-OR-268	9/5/2002	Indoor	24	Primary	NT	NT	NT	0.180	ND	0.085	ND	NT	NT	0.870	ND	NT	NT	NT	
619B	1	0079-Air-037	11/18/2003	Indoor	24	Primary	NT	NT	NT	0.200		0.040	ND	NT	NT	0.021	J	NT	NT	NT	
619B	1	B619-B(EPA)	11/24/2003	Indoor	24	EPA Primary	NT	NT	NT	0.240	J	0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
619B	1	0079-Air-103	11/25/2003	Indoor	24	Primary	NT	NT	NT	0.198		0.038	ND	NT	NT	0.020	J	NT	NT	NT	
620E	1	B620-E (EPA)	11/18/2003	Indoor	24	EPA Primary	NT	NT	NT	4.200		0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
620E	1	B620-E (EPA)	11/25/2003	Indoor	24	EPA Primary	NT	NT	NT	3.200		0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
620F	1	0033-OR-248	9/3/2002	Indoor	24	Primary	NT	NT	NT	4.200		0.082	ND	NT	NT	0.640	ND	NT	NT	NT	
620F	1	0033-OR-273	9/5/2002	Indoor	24	Primary	NT	NT	NT	0.970		0.077	ND	NT	NT	0.780	ND	NT	NT	NT	
620F	1	0079-Air-035 (FD)	11/18/2003	Indoor	24	Duplicate	NT	NT	NT	2.200		0.036	ND	NT	NT	0.021	J	NT	NT	NT	
620F	1	0079-Air-034	11/18/2003	Indoor	24	Primary	NT	NT	NT	2.000		0.031	ND	NT	NT	0.021	J	NT	NT	NT	
620F	1	0079-Air-101	11/25/2003	Indoor	24	Primary	NT	NT	NT	4.000		0.036	ND	NT	NT	0.024	J	NT	NT	NT	
620F	1	B620-F (EPA)	1/25/2004	Indoor	24	EPA Primary	NT	NT	NT	4.000		0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
620F	1	B620-F (EPA)	2/9/2004	Indoor	24	EPA Primary	NT	NT	NT	0.880		0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
C1	1	BC-1 (EPA)	5/24/2003	Indoor	24	EPA Primary	NT	NT	NT	0.320		0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
C1	1	0079-Air-031	11/18/2003	Indoor	24	Primary	NT	NT	NT	0.220		0.034	ND	NT	NT	0.016	J	NT	NT	NT	
C1	1	0079-Air-098	11/25/2003	Indoor	24	Primary	NT	NT	NT	0.260		0.032	ND	NT	NT	0.024	J	NT	NT	NT	
C1	1	009-Air-163	5/7/2004	Indoor	24	Primary	NT	NT	NT	0.083		0.038	ND	NT	NT	0.038	ND	NT	NT	NT	
C1	1	0079-AIR-226	5/14/2004	Indoor	24	Primary	NT	NT	NT	0.120		0.037	ND	NT	NT	0.018	J	NT	NT	NT	
Berry Drive	NA	0079-Air-023	11/18/2003	Outdoor	24	Primary	NT	NT	NT	0.182		0.035	ND	NT	NT	0.017	J	NT	NT	NT	
Berry Drive	NA	0079-Air-088	11/25/2003	Outdoor	24	Primary	NT	NT	NT	0.178		0.050	ND	NT	NT	0.016	J	NT	NT	NT	
Berry Drive	NA	0079-AIR-162	5/7/2004	Outdoor	24	Primary	NT	NT	NT	0.022		0.041	ND	NT	NT	0.041	ND	NT	NT	NT	
Berry Drive	NA	0079-AIR-225	5/14/2004	Outdoor	24	Primary	NT	NT	NT	0.048		0.730		NT	NT	0.032	ND	NT	NT	NT	
Wescoat Playground	NA	0033-OR-247	9/3/2002	Outdoor	24	Primary	NT	NT	NT	0.160	ND	0.077	ND	NT	NT	1.100	ND	NT	NT	NT	
Wescoat Playground	NA	0033-OR-272	9/5/2002	Outdoor	24	Primary	NT	NT	NT	0.170	ND	0.080	ND	NT	NT	0.900	ND	NT	NT	NT	
Wescoat Playground	NA	0079-Air-024	11/18/2003	Outdoor	24	Primary	NT	NT	NT	0.240		0.035	ND	NT	NT	0.020	J	NT	NT	NT	
Wescoat Playground	NA	Wescoat PG (EPA)	11/24/2003	Outdoor	24	EPA Primary	NT	NT	NT	0.270	ND	0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
Wescoat Playground	NA	0079-Air-091 (FD)	11/25/2003	Outdoor	24	Duplicate	NT	NT	NT	0.196		0.038	ND	NT	NT	0.019	J	NT	NT	NT	
Wescoat Playground	NA	0079-Air-089	11/25/2003	Outdoor	24	Primary	NT	NT	NT	0.220		0.036	ND	NT	NT	0.021	J	NT	NT	NT	
Wescoat Playground	NA	Wescoat PG (EPA)	1/26/2004	Outdoor	24	EPA Primary	NT	NT	NT	0.270	ND	0.130	ND	NT	NT	0.100	ND	NT	NT	NT	
Wescoat Playground	NA	Wescoat PG (EPA)	2/9/2004	Outdoor	24	EPA Primary	NT	NT	NT	0.270	ND	0.130	ND	NT	NT	0.200	ND	NT	NT	NT	
						Number of Samples	0	0	0	20		20		0	0	20		0	0	0	
						Number of Detects	0	0	0	17		0		0	0	8		0	0	0	
		Indoor				Minimum Detection	0	0	0	0.083		0		0	0	0.016		0	0	0	
						Maximum Detection	0	0	0	4.2		0		0	0	0.024		0	0	0	
						Number of Samples	0	0	0	12		12		0	0	12		0	0	0	
						Number of Detects	0	0	0	7		1		0	0	5		0	0	0	
		Outdoor				Minimum Detection	0	0	0	0.022		0.73		0	0	0.016		0	0	0	
						Maximum Detection	0	0	0	0.24		0.73		0	0	0.021		0	0	0	
Residence 01	1	RES1-FR/BZ	03/11/04	Indoor	24	EPA Primary	1.300	0.100	ND 12.000	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.510	0.150	J
Residence 01	1	RES1-MB/BZ	03/11/04	Indoor	24	EPA Primary	1.800	0.100	ND 13.000	0.180	J	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.540	0.170	J
Residence 01	1	RES1-FR/BZ	03/30/04	Indoor	24	EPA Primary	0.630	0.100	ND 4.100	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.570	0.140	J
Residence 01	1	RES1-MB/BZ	03/30/04	Indoor	24	EPA Primary	0.730	0.100	ND 6.100	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.570	0.140	J
Residence 01	1	RES1-DA/BZ	12/08/04	Indoor	24	EPA Primary	1.300	0.100	ND 1.700	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.530	0.140	ND
Residence 02	1	RES2-DA/BZ	03/11/04	Indoor	24	EPA Primary	1.800	0.100	ND 5.400	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.330	0.140	J
Residence 02	1	RES2-GR/BZ	03/11/04	Indoor	24	EPA Primary	2.000	0.100	ND 6.100	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.500	0.190	J
Residence 02	1	RES2-DA/BZ	03/30/04	Indoor	24	EPA Primary	1.000	0.100	ND 2.200	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.560	0.140	J
Residence 02	1	RES2-GR/BZ	03/30/04	Indoor	24	EPA Primary	0.880	0.100	ND 2.000	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.540	0.140	ND
Residence 02	1	RES2-DA/BZ	12/08/04	Indoor	24	EPA Primary	1.900	0.100	J 0.880	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.600	0.140	J
Residence 03	1	RES3-FR/BZ	03/11/04	Indoor	24	EPA Primary	0.370	0.100	ND 0.330	J 0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.290	J 0.160	J
Residence 03	1	RES3-FR/BZ-D	03/11/04	Indoor	24	EPA Duplicate	0.540	0.100	ND 0.310	J 0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.560	0.160	J
Residence 03	1	RES3-FR/BZ	03/30/04	Indoor	24	EPA Primary	0.590	0.100	ND 0.170	ND	0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.550	0.140	ND
Residence 03	1	RES3-BR-BZ	03/23/05	Indoor	24	EPA Primary	2.300	0.200	ND 0.570		0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.530	0.170	J
Residence 05	1	RES5-FR-BZ	08/23/04	Indoor	24	EPA Primary	2.000	0.200	ND 0.340	ND	0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.490	0.270	ND
Residence 05	1	RES5-FR-BZ	12/08/04	Indoor	24	EPA Primary	8.300	0.100	ND 0.810		0.140	ND	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.480	0.140	ND
Residence 06	1	RES6-BR-BZ	08/10/04	Indoor	24	EPA Primary	0.630	0.200	ND 0.340	ND	0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.470	0.270	ND
Residence 06	1	RES6-LR-BZ	08/10/04	Indoor	24	EPA Primary	1.300	0.200	ND 0.340	ND	0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.640	0.150	J
Residence 06	1	RES6-LR-BZ	12/08/04	Indoor	24	EPA Primary	1.400	0.100	ND 0.170	ND	0.240	J	0.070	ND	0.150	ND 0.100	ND 0.100	ND	NT	0.480	0.140	ND
Residence 07	1	RES7-BR-BZ	08/10/04	Indoor	24	EPA Primary	0.730	0.200	ND 0.360		0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.630	0.340	
Residence 07	1	RES7-BR-BZ	03/23/05	Indoor	24	EPA Primary	3.500	J 0.200	ND 2.000		0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.570	0.280	
Residence 07	1	RES7-BR-BZ-D	03/23/05	Indoor	24	EPA Duplicate	3.400	J 0.200	ND 2.200		0.270	ND	0.130	ND	0.300	ND 0.200	ND 0.200	ND	NT	0.570	0.280	

TABLE 4-12
RESULTS OF INDOOR AND OUTDOOR SAMPLES - RESIDENTIAL
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Residence	Sampled Floor	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE	Freon 113		1,1,1-TCA	
Residence 08	1	RES8-LR-BZ	08/10/04	Indoor	24	EPA Primary	0.980		0.200	ND	0.340	ND	1.400		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.520		3.500	
Residence 08	1	RES8-LR-BZ	08/23/04	Indoor	24	EPA Primary	0.630		0.200	ND	0.340	ND	2.500		0.130	ND	0.180	J	0.200	ND	0.200	ND	NT	0.580		4.500	
Residence 08	1	RES8-LR-BZ-DUP	08/23/04	Indoor	24	EPA Duplicate	0.590		0.200	ND	0.340	ND	2.400		0.130	ND	0.150	J	0.200	ND	0.200	ND	NT	0.580		4.500	
Residence 08	1	RES8-GAR-BZ-G	10/13/04	Indoor	Grab	EPA Primary	1.100	J	1.200	ND	2.000	ND	15.000		0.770	ND	1.800	ND	1.200	ND	1.200	ND	NT	2.300	ND	23.000	J
Residence 08	1	RES8-LR-BZ-G	10/13/04	Indoor	Grab	EPA Primary	1.000		0.200	ND	0.680		2.100		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.650		3.500	J
Residence 08	1	RES8-GAR-BZ-G	01/19/05	Indoor	Grab	EPA Primary	0.830		0.200	ND	0.300	J	11.000		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	1.000		13.000	
Residence 08	1	RES8-LR-BZ-G	01/19/05	Indoor	Grab	EPA Primary	1.200		0.200	ND	0.270	J	2.600		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.690		3.200	
Residence 08	1	RES8-GAR-BZ	01/25/05	Indoor	24	EPA Primary	1.300		0.200	ND	0.620		11.000		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	1.000		12.000	
Residence 08	1	RES8-LR-BZ	01/25/05	Indoor	24	EPA Primary	2.400		0.200	ND	0.680		2.100		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.740		2.800	
Residence 08	1	RES8-LR-BZ-D	01/25/05	Indoor	24	EPA Duplicate	2.500		0.200	ND	0.660		2.100		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.770		2.800	
Residence 08	1	RES8-LR-BZ	01/25/06	Indoor	24	EPA Primary	1.500		0.200	ND	0.420		1.300		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.660		0.930	
Residence 08	1	RES8-LR-BZ-D	01/25/06	Indoor	24	EPA Duplicate	1.500		0.200	ND	0.420		1.400		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.630		0.980	
Residence 09	1	RES9-LR-BZ	08/10/04	Indoor	24	EPA Primary	0.590		0.200	ND	0.340	ND	0.200	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.680		0.230	J
Residence 09	1	RES9-LR-BZ	12/08/04	Indoor	24	EPA Primary	0.780		0.100	ND	0.400		0.180	J	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT	0.570		0.260	
Residence 10	1	RES10-FR-BZ	08/23/04	Indoor	24	EPA Primary	0.680		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.450		0.270	ND
Residence 10	1	RES10-LR-BZ	12/08/04	Indoor	24	EPA Primary	1.100		0.100	ND	0.230	J	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT	0.620		0.150	J
Residence 11	1	RES11-BR-BZ	08/10/04	Indoor	24	EPA Primary	1.200		0.200	ND	0.550		0.750		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.690		1.400	
Residence 11	1	RES11-BR-BZ-D	08/10/04	Indoor	24	EPA Duplicate	1.200		0.200	ND	0.520		0.750		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.660		1.300	
Residence 11	1	RES11-BR-BZ	08/23/04	Indoor	24	EPA Primary	4.800	J	0.200	ND	0.880		1.400		0.130		0.300	ND	0.200	ND	0.200	ND	NT	1.200		2.300	
Residence 11	1	RES11-BR-G	10/13/04	Indoor	Grab	EPA Primary	1.400		0.200	ND	0.880		0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.600		1.200	
Residence 11	1	RES11-LR-G	10/13/04	Indoor	Grab	EPA Primary	1.500		0.200	ND	0.880		0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.750	J	1.300	
Residence 11	1	RES11-BR-BZ	01/25/05	Indoor	24	EPA Primary	0.730		0.200	ND	0.600		0.640		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.680		0.460	
Residence 11	1	RES11-FR-BZ	02/24/05	Indoor	24	EPA Primary	1.200		0.200	ND	0.320	J	0.750		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.640		0.710	
Residence 11	1	RES11-FR-BZ-G	02/24/05	Indoor	Grab	EPA Primary	3.000		0.200	ND	0.450		0.490		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.610		0.450	
Residence 11	1	RES11-BR-BZ	02/26/07	Indoor	24	EPA Primary	0.630		0.200	ND	0.270	J	0.860		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.770		0.430	
Residence 11	1	RES11-FR-BZ	02/26/07	Indoor	24	EPA Primary	0.630		0.200	ND	0.320	J	0.750		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.770		0.490	
Residence 11	1	RES11-FR-BZ-D	02/26/07	Indoor	24	EPA Primary	0.630		0.200	ND	0.250	J	0.750		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.770		0.500	
Residence 12	1	RES12-BR-BZ	11/16/05	Indoor	24	EPA Primary	0.980		0.200	ND	0.370		0.160	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.710		0.170	J
Residence 12	1	RES12-LR-BZ	11/16/05	Indoor	24	EPA Primary	1.070		0.200	ND	0.410		0.180	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.700		0.170	J
Residence 12	1	RES12-BR-BZ	01/25/06	Indoor	24	EPA Primary	1.100		0.200	ND	0.360		0.160	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.560		0.270	ND
Residence 12	1	RES12-FR-BZ	01/25/06	Indoor	24	EPA Primary	1.300		0.200	ND	0.410		0.170	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.690		0.270	ND
Residence 13	1	RES13-LR-BZ	08/10/04	Indoor	24	EPA Primary	1.300		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.580		0.140	J
Residence 13	1	RES13-LR-BZ	12/08/04	Indoor	24	EPA Primary	33.000		0.100	ND	1.100		10.000		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT	0.640		0.450	
Residence 13	1	RES13-LR-BZ	3/15/2006	Indoor	24	EPA Primary	28.000		0.200	ND	0.750		0.200	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.580		0.230	J
Residence 14	1	RES14A-BR-BZ	08/10/04	Indoor	24	EPA Primary	0.460		0.200	ND	0.230	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.540		0.270	ND
Residence 14	1	RES14B-LR-BZ	08/10/04	Indoor	24	EPA Primary	1.400		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.610		0.160	J
Residence 14	1	RES14A-LR-BZ	3/15/2006	Indoor	24	EPA Primary	1.200		0.200	ND	0.240	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.570		0.270	ND
Residence 14	1	RES14B-LR-BZ	3/15/2006	Indoor	24	EPA Primary	2.400		0.200	ND	0.220	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.560		0.270	ND
Residence 15	1	RES15B-DR-BZ	4/25/2006	Indoor	24	EPA Primary	2.300		0.200	ND	0.520		0.700		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.770		1.500	
Residence 15	1	RES15B-OF-BZ	4/25/2006	Indoor	24	EPA Primary	1.900		0.200	ND	0.880		0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.760		1.100	
Residence 15	1	RES15B-DR-BZ	9/26/2006	Indoor	24	EPA Primary	0.210	J	0.200	ND	0.200	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.630		0.460	
Residence 15	1	RES15B-OF-BZ	9/26/2006	Indoor	24	EPA Primary	0.250		0.200	ND	0.170	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.570		0.380	
Residence 16	1	RES16-BR-BZ	3/15/2006	Indoor	24	EPA Primary	3.200		0.200	ND	0.330	J	0.700		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.670		0.140	J
Residence 16	1	RES16-FR-BZ	4/25/2006	Indoor	24	EPA Primary	1.800		0.200	ND	0.290	J	0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.700		0.150	J
Residence 16	1	RES16-BR2-BZ	9/26/2006	Indoor	24	EPA Primary	0.780		0.270	ND	0.450	ND	0.360	ND	0.170	ND	0.400	ND	0.270	ND	0.270	ND	NT	0.540		0.370	ND
Residence 16	1	RES16-BR-BZ	9/26/2006	Indoor	24	EPA Primary	1.200		0.200	ND	0.180	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.520		0.270	ND
Residence 16	1	RES16-FR-BZ	9/26/2006	Indoor	24	EPA Primary	1.200		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.540		0.270	ND
Residence 16	1	RES16-BR-BZ	2/2/2007	Indoor	24	EPA Primary	1.700		0.200	ND	0.340	ND	0.230	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.700		0.270	ND
Residence 16	1	RES16-FR-BZ	2/2/2007	Indoor	24	EPA Primary	0.680		0.200	ND	0.340	ND	0.140	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.700		0.270	ND
Residence 17	1	RES17-LR-BZ	2/2/2007	Indoor	24	EPA Primary	0.880		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.650		0.270	ND
Residence 01	NA	RES1-OUT	03/11/04	Outdoor	24	EPA Primary	0.220	J	0.100	ND	0.290	J	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT	0.470		0.140	ND
Residence 01	NA	RES1-OUT	03/30/04	Outdoor	24	EPA Primary	0.150		0.100	ND	0.170	ND	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT	0.540		0.140	ND
Residence 06	NA	RES6-OUT	08/10/04	Outdoor	24	EPA Primary	0.160	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.630		0.140	J
Residence 06	NA	RES6-OUT	12/08/04	Outdoor	24	EPA Primary	0.120	ND	0.100	ND	0.300	J	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT	0.550		0.140	ND
Residence 08	NA	RES8-OUT	08/23/04	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.410		0.270	ND
Residence 08	NA	RES8-OUT	01/25/06	Outdoor	24	EPA Primary	0.130	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT	0.510		0.270	ND

TABLE 4-12
RESULTS OF INDOOR AND OUTDOOR SAMPLES - RESIDENTIAL
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Residence	Sampled Floor	Location/ Sample ID	Sample Date	Sample Purpose	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
Residence 11	NA	RES11-OUT	08/10/04	Outdoor	24	EPA Primary	0.160	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.500		0.270	ND
Residence 11	NA	RES11-OUT	01/25/05	Outdoor	24	EPA Primary	0.140	J	0.200	ND	0.300	J	0.270	ND	0.130	ND	0.230	J	0.200	ND	0.200	ND	NT		0.570		0.270	ND
Residence 11	NA	RES11-OUT	02/24/05	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.540		0.270	ND
Residence 12	NA	RES12-OUT	11/16/05	Outdoor	24	EPA Primary	0.260		0.200	ND	0.950		0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640		0.270	ND
Residence 12	NA	RES12-OUT	01/25/06	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.590		0.270	ND
Residence 14	NA	RES14-OUT	3/15/2006	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570		0.270	ND
Residence 15	NA	RES15B-OUT	4/25/2006	Outdoor	24	EPA Primary	0.190	J	0.200	ND	0.170	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.750		0.270	ND
Residence 15	NA	RES15B-OUT	9/26/2006	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.520		0.270	ND
Residence 17	NA	RES17-OUT	2/26/2007	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.670		0.270	ND
						Number of Samples	72		72		72		72		72		72		72		72		0		72		72	
		Indoor				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
						Minimum Detection	0.21		0.1		0.17		0.14		0.13		0.15		0		0		0		0.29		0.14	
						Maximum Detection	33		0.1		13		15		0.13		0.18		0		0		0		1.2		23	
						Number of Samples	15		15		15		15		15		15		15		15		0		15		15	
		Outdoor				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
						Minimum Detection	0.13		0		0.17		0		0		0.23		0		0		0		0.41		0.14	
						Maximum Detection	0.26		0		0.95		0		0		0.23		0		0		0		0.75		0.14	
Residence 4	1	RES4-BRJ	03/11/04	Indoor	24	EPA Primary	1.300		0.100	ND	0.400		0.590		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.600		0.390	
Residence 4	1	RES4-BRJ	03/30/04	Indoor	24	EPA Primary	0.470		0.100	ND	0.180	J	0.390		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.580		0.320	
Residence 4	1	RES4-BRS	03/30/04	Indoor	24	EPA Primary	0.370		0.100	ND	0.280		0.810		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.580		0.200	J
Residence 4	1	RES4-BRSD	03/30/04	Indoor	24	EPA Duplicate	0.380		0.100	ND	0.280		0.810		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.600		0.210	J
Residence 4	NA	RES4-OUT	03/11/04	Outdoor	24	EPA Primary	0.250		0.100	ND	0.260	J	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.550		0.160	J
Residence 4	NA	RES4-OUT	03/30/04	Outdoor	24	EPA Primary	0.190	J	0.100	ND	0.170	ND	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.540		0.140	ND
						Number of Samples	4		4		4		4		4		4		4		4		0		4		4	
		Indoor - Before mitigation				Number of Detects	4		0		4		4		0		0		0		0		0		4		4	
						Minimum Detection	0.37		0		0.18		0.39		0		0		0		0		0		0.58		0.2	
						Maximum Detection	1.3		0		0.4		0.81		0		0		0		0		0		0.6		0.39	
						Number of Samples	2		2		2		2		2		2		2		2		0		2		2	
		Outdoor				Number of Detects	2		0		1		0		0		0		0		0		0		2		1	
						Minimum Detection	0.19		0		0.26		0		0		0		0		0		0		0.54		0.16	
						Maximum Detection	0.25		0		0.26		0		0		0		0		0		0		0.55		0.16	
Residence 4	1	RES4-BRJ	07/21/04	Indoor	24	Duplicate-EPA	0.590		0.200	ND	0.190	J	0.420		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.630		0.210	J
Residence 4	1	RES4-BRJ	07/21/04	Indoor	24	Primary	0.530		0.140	ND	0.230	ND	0.270		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.640		0.200	
Residence 4	1	RES4-BRS	07/21/04	Indoor	24	Duplicate-EPA	0.830		0.200	ND	0.400		1.300		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.600		0.230	J
Residence 4	1	RES4-BRS	07/21/04	Indoor	24	Primary	0.780		0.160	ND	0.420		0.820		0.051	ND	0.240	ND	0.079	ND	0.160	ND	0.790	ND	0.620		0.240	
Residence 4	1	RES4-BRJ	08/16/04	Indoor	24	Primary	0.880		0.130	ND	6.400		1.000		0.040	ND	1.000		0.150		0.300		0.620	ND	0.640		0.470	
Residence 4	1	RES4-BRS	08/16/04	Indoor	24	Duplicate-EPA	0.930		0.200	ND	0.420		0.240	J	0.130	ND	0.470		0.200	ND	0.200	ND	NT		0.660		0.210	J
Residence 4	1	RES4-BRS	08/16/04	Indoor	24	Primary	0.830		0.140	ND	0.240	ND	0.190	ND	0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.640		0.190	ND
Residence 4	1	RES4-BATH	10/27/04	Indoor	24	Primary	1.200		0.120	ND	0.250		0.190		0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.570		0.170	ND
Residence 4	1	RES4-BRJ	10/27/04	Indoor	24	Primary	1.000		0.130	ND	0.270		0.170	ND	0.041	ND	0.190	ND	0.064	ND	0.130	ND	0.640	ND	0.590		0.180	ND
Residence 4	1	RES4-BRS	10/27/04	Indoor	24	Primary	0.530		0.130	ND	0.270		0.290		0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.610		0.170	ND
Residence 4	1	RES4-BRJ	12/01/04	Indoor	24	Duplicate-EPA	0.720		0.100	ND	0.450		0.250	J	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.550		0.230	J
Residence 4	1	RES4-BRJ	12/01/04	Indoor	24	Primary	0.590		0.130	ND	0.420		0.210		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.600		0.200	
Residence 4	1	RES4-BRS	12/01/04	Indoor	24	Duplicate-EPA	0.670		0.100	ND	0.740		0.530		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.580		0.240	J
Residence 4	1	RES4-BRS	12/01/04	Indoor	24	Primary	0.580		0.140	ND	0.530		0.370		0.044	ND	0.320		0.068	ND	0.140	ND	0.680	ND	0.260	ND	0.200	
Residence 4	1	RES4-BRJ	05/11/05	Indoor	24	Primary	0.530		0.130	ND	0.220	ND	0.180	ND	0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.680		0.180	
Residence 4	1	RES4-NBRS	05/11/05	Indoor	24	Primary	0.350		0.140	ND	0.230	ND	0.220		0.044	ND	0.200	ND	0.068	ND	0.140	ND	0.680	ND	0.670		0.190	ND
Residence 4	1	RES4-BRS	02/26/07	Indoor	24	EPA Primary	0.470		0.200	ND	0.340	ND	0.520		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.680		0.190	J
Residence 4	NA	RES4-OUT	07/21/04	Outdoor	24	Duplicate-EPA	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570		0.270	
Residence 4	NA	RES4-OUT	07/21/04	Outdoor	24	Primary	0.260	ND	0.210	ND	0.360	ND	0.280	ND	0.067	ND	0.320	ND	0.100	ND	0.210	ND	1.000	ND	0.600		0.290	ND
Residence 4	NA	RES4-OUT2	10/27/04	Outdoor	24	Primary	0.230		0.130	ND	0.260		0.180		0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.620		0.170	ND
Residence 4	NA	RES4-OUT2	12/01/04	Outdoor	24	Primary	0.250		0.140	ND	0.350		0.180	ND	0.043	ND	0.200	ND	0.067	ND	0.130	ND	0.670	ND	0.570		0.180	ND
Residence 4	NA	RES4-OUT	05/11/05	Outdoor	24	Primary	0.150		0.100	ND	0.180	ND	0.160		0.033	ND	0.160	ND	0.052	ND	0.100	ND	0.520	ND	0.690		0.140	ND
Residence 4	NA	RES4-OUT	02/26/07	Outdoor	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.670		0.270	ND
						Number of Samples	17		17		17		17		17		17		17		17		11		17		17	
		Indoor - after ventilation of cellar				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
						Minimum Detection	0.35		0		0.19		0.19		0		0.32		0.15		0.3		0		0.55		0.18	
						Maximum Detection	1.2		0		6.4		1.3		0		1		0.15		0.3		0		0.68		0.47	
						Number of Samples	6		6		6		6		6		6		6		6		4		6		6	
		Outdoor				Number of Detects	0		0		0		0		0		0		0		0		0		0		0	
						Minimum Detection	0.15		0		0.26		0.16		0		0		0		0		0		0.57		0.27	
						Maximum Detection	0.25		0		0.35		0.18		0		0		0		0		0		0.69		0.27	

Notes:

1. AM and PM Samples (collected in the morning and afternoon at one location) are counted as one sample
2. The TAGA results are not counted in this summary table
3. ND denotes Non-detected; NT denotes not tested
4. Concentrations are in ug/m3.
5. Co-located samples are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count
6. J flag is used when the value is between the method detection limit and the reporting limit.

TABLE 4-13
RESULTS OF PATHWAY SAMPLES - RESIDENTIAL
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Residence	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113	1,1,1-TCA	
619B	NA	1	0079-Air-036	11/18/2003	24	Primary	NT		NT		NT		0.220		0.037	ND	NT		NT		0.019	J	NT		NT	NT	
619B		1	0079-Air-102	11/25/2003	24	Primary	NT		NT		NT		0.200		0.035	ND	NT		NT		0.022	J	NT		NT	NT	
620F	NA	1	0079-Air-032 (FD)	11/18/2003	24	Duplicate	NT		NT		NT		2.400		0.034	ND	NT		NT		0.026	J	NT		NT	NT	
620F		1	0079-Air-033	11/18/2003	24	Primary	NT		NT		NT		2.200		0.032	ND	NT		NT		0.020	J	NT		NT	NT	
620F		1	0079-Air-099	11/25/2003	24	Primary	NT		NT		NT		4.400		0.033	ND	NT		NT		0.025	J	NT		NT	NT	
620F		1	0079-Air-100	11/25/2003	24	Primary	NT		NT		NT		4.400		0.038	ND	NT		NT		0.025	J	NT		NT	NT	
C1	Basement	1	0079-Air-030 (FD)	11/18/2003	24	Duplicate	NT		NT		NT		0.240		0.031	ND	NT		NT		0.014	J	NT		NT	NT	
C1		1	0079-Air-029	11/18/2003	24	Primary	NT		NT		NT		0.260		0.031	ND	NT		NT		0.018	J	NT		NT	NT	
C1		1	BC-2 (EPA)	11/24/2003	24	EPA Primary	NT		NT		NT		0.200	J	0.130	ND	NT		NT		0.200	ND	NT		NT	NT	
C1		1	0079-Air-097	11/25/2003	24	Primary	NT		NT		NT		0.200		0.008	J	NT		NT		0.018	J	NT		NT	NT	
C1		1	0079-AIR-164	5/7/2004	24	Primary	NT		NT		NT		0.040		0.035	ND	NT		NT		0.035	ND	NT		NT	NT	
C1		1	0079-AIR-165	5/7/2004	24	Primary	NT		NT		NT		0.040		0.037	ND	NT		NT		0.037	ND	NT		NT	NT	
C1		1	0079-AIR-227	5/14/2004	24	Primary	NT		NT		NT		0.110		0.032	ND	NT		NT		0.016	ND	NT		NT	NT	
						Number of Samples	0		0		0		13		13		0		0		13		0		0	0	
						Number of Detects	0		0		0		13		1		0		0		9		0		0	0	
						Minimum Detection	0.000		0.000		0.000		0.040		0.008		0.000		0.000		0.014		0.000		0.000	0.000	
						Maximum Detection	0.000		0.000		0.000		4.400		0.008		0.000		0.000		0.026		0.000		0.000	0.000	
Residence 12	Basement	Basement	RES12-B-PP	11/16/05	24	EPA Primary	0.590		0.200	ND	0.420		0.420		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		1.450	0.240	J
Residence 12		Basement	RES12-B-PP	01/25/06	24	EPA Primary	0.210	J	0.200	ND	0.360		0.360		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		1.100	0.170	J
Residence 12		Basement	RES12-B-PP D	11/16/05	24	EPA Duplicate	0.590		0.200	ND	0.410		0.410		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		1.530	0.240	J
Residence 12		Basement	RES12-B-PP D	01/25/06	24	EPA Duplicate	0.230	J	0.200	ND	0.430		0.420		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		1.000	0.180	J
Residence 10	Bathroom sink	1	RES10-BS-PP	08/23/04	24	EPA Primary	0.780		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.440	0.270	ND
Residence 13		1	RES13-BS-PP	12/08/04	24	EPA Primary	11.000		0.100	ND	0.430		5.000		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.340	0.150	J
Residence 14	Cellar	Cellar	RES14A-C-PP	08/10/04	24	EPA Primary	0.170	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.590	0.140	J
Residence 14		Cellar	RES14A-C-PP	3/15/2006	24	EPA Primary	0.240	ND	0.200	ND	0.300	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570	0.270	ND
Residence 14		Cellar	RES14A-C-PP-D	08/10/04	24	EPA Duplicate	0.160	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.590	0.140	J
Residence 14		Cellar	RES14A-C-PP-D	3/15/2006	24	EPA Duplicate	0.240	ND	0.200	ND	0.220	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570	0.270	ND
Residence 14		Cellar	RES14B-C-PP	08/10/04	24	EPA Primary	0.170	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.600	0.150	J
Residence 14		Cellar	RES14B-C-PP	3/15/2006	24	EPA Primary	0.240	ND	0.200	ND	0.200	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.560	0.270	ND
Residence 11	Crawlspace	NA	RES11-CS-G	10/13/04	Grab	EPA Primary	0.540		0.200	ND	1.000		0.310		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.520	0.210	J
Residence 11		NA	RES11-CS-PATH	02/24/05	24	EPA Primary	0.230	J	0.200	ND	0.470		0.640		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.600	0.170	J
Residence 11		NA	RES11-CS-PP	08/10/04	24	EPA Primary	0.180	J	0.200	ND	0.360		0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640	0.170	J
Residence 11		NA	RES11-CS-PP	08/23/04	24	EPA Primary	0.160	J	0.200	ND	0.250	J	0.420		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.540	0.140	J
Residence 11		NA	RES11-CS-PP	01/25/05	24	EPA Primary	0.160	J	0.200	ND	0.410		0.490		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640	0.170	J
Residence 11		NA	RES11-CS-PP	02/26/07	24	EPA Primary	0.240	ND	0.200	ND	0.190	J	0.530		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.730	0.270	ND
Residence 12		NA	RES12-CS-PP	11/16/05	24	EPA Primary	0.430		0.200	ND	0.440		0.240	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.770	0.210	J
Residence 12		NA	RES12-CS-PP	01/25/06	24	EPA Primary	0.140	J	0.200	ND	0.220	J	0.150	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.570	0.150	J
Residence 15		NA	RES15B-CS-PP	4/25/2006	24	EPA Primary	4.400		0.200	ND	0.260	J	0.480		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.770	0.380	
Residence 15		NA	RES15B-CS2-PP	9/26/2006	24	EPA Primary	0.130	J	0.200	ND	0.180	J	0.640		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.670	0.270	ND
Residence 15		NA	RES15B-CS-PP	9/26/2006	24	EPA Primary	0.130	J	0.200	ND	0.340	ND	0.440		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.700	0.270	ND
Residence 16		NA	RES16-CS2-PP	3/15/2006	24	EPA Primary	0.180	J	0.200	ND	0.220	J	0.140	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.670	0.270	ND
Residence 16		NA	RES16-CS-PP	3/15/2006	24	EPA Primary	0.180	J	0.200	ND	0.210	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.730	0.270	ND
Residence 16		NA	RES16-CS-PP	9/26/2006	24	EPA Primary	0.150	J	0.120	J	0.200	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.560	0.440	
Residence 16		NA	RES16-CS-PP	2/2/2007	24	EPA Primary	0.130	J	0.200	ND	0.340	ND	0.220	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.730	0.270	ND
Residence 17		NA	RES17-CS1-PP	2/26/2007	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.140	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.660	0.270	ND
Residence 7		NA	RES7-CS-PP	08/10/04	24	EPA Primary	0.270		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.600	0.200	J
Residence 7		NA	RES7-CS-PP	03/23/05	24	EPA Primary	0.200	J	0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.580	0.140	J
Residence 8		NA	RES8-CS2-PP-G	10/13/04	Grab	EPA Primary	0.410		0.200	ND	0.680		0.170	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640	0.290	
Residence 8		NA	RES8-CS-PP	08/10/04	24	EPA Primary	0.480		0.200	ND	0.340	ND	1.000		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.770	2.300	
Residence 8		NA	RES8-CS-PP	08/23/04	24	EPA Primary	0.340		0.200	ND	0.340	ND	0.700		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.580	1.400	
Residence 8		NA	RES8-CS-PP	01/25/05	24	EPA Primary	0.630		0.200	ND	0.810		0.480		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.840	0.650	
Residence 8		NA	RES8-CS-PP	01/25/06	24	EPA Primary	0.150	J	0.200	ND	0.180	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.700	0.160	J
Residence 8		NA	RES8-CS-PP-G	10/13/04	Grab	EPA Primary	0.500		0.200	ND	0.640		0.500		0.130	ND	0.600	ND	0.200	ND	0.200	ND	NT		0.610	1.000	
Residence 10	kitchen sink	1	RES10-KS-PP	12/08/04	24	EPA Primary	0.120	ND	0.100	ND	0.170	ND	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.750	0.170	J
Residence 11		1	RES11-KS-PP-G	10/13/04	Grab	EPA Primary	1.000		0.200	ND	2.200		0.590		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.720	2.300	
Residence 3		1	RES3-KSPP	03/11/04	24	EPA Primary	0.540		0.100	ND	0.330	J	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.570	0.160	J
Residence 3		1	RES3-KSPP	03/30/04	24	EPA Primary	0.340		0.100	ND	0.170	ND	0.140	ND	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.540	0.140	ND
Residence 11	Sub Slab	NA	RES11-SS-G	01/26/05	Grab	EPA Primary	1.500	ND	1.200	ND	47.000		3.700		0.800	ND	1.800	ND	1.200	ND	1.200	ND	NT		20.000	5.500	
Residence 11		NA	RES11-SS-G D	01/26/05	Grab	EPA Duplicate	1.500	ND	1.200	ND	39.000		4.100		0.800	ND	1.800	ND	1.200	ND	1.200	ND	NT		21.000	6.000	
Residence 11		NA	RES11-SS	02/24/05	Grab	EPA Primary	1.500	ND	1.200	ND	43.000		5.400		0.800	ND	1.800	ND	1.200	ND	1.200	ND	NT		14.000	7.100	
Residence 11		NA	RES11-SS-G	02/24/05	Grab	EPA Primary	1.500	ND	1.200	ND	40.000		4.300		0.800	ND	1.800	ND	1.200	ND	1.200	ND	NT		13.000	7.100	
Residence 8		NA	RES8-SS	01/25/05	24	EPA Primary	0.130	J	0.200	ND	0.440		0.590		0.130	ND	0.300	ND	0.160	J	0.200	ND	NT		1072.000	J 30.000	J
Residence 8		NA	RES8-G-SS	01/25/06	Grab	EPA Primary	0.240	ND	0.200	ND	0.490		0.260	J	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		110.000	23.000	

TABLE 4-13
RESULTS OF PATHWAY SAMPLES - RESIDENTIAL
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Residence	Sampling Condition	Sampled Floor	Location/ Sample ID	Sample Date	Sample Duration	Duplicates	Chloroform		1,1-DCA		PCE		TCE		VC		1,2-DCB		1,1-DCE		cis-1,2-DCE		trans-1,2-DCE		Freon 113		1,1,1-TCA	
Residence 11	Others	1	RES11-FR-PATH	01/25/05	24	EPA Primary	0.600		0.200	ND	4.300		4.300		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		9.200		4.600	
Residence 11		1	RES11-FR-PATH	02/24/05	24	EPA Primary	0.930		0.610	ND	5.400		5.400		0.380	ND	0.900	ND	0.590	ND	0.590	ND	NT		11.000		5.200	
Residence 13		1	RES13-BR-PP	08/10/04	24	EPA Primary	63.000		0.200	ND	0.330	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640		0.150	J
Residence 13		1	RES13-BR-PP	3/15/2006	24	EPA Primary	23.000		0.200	ND	0.680		0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.580		0.230	J
Residence 3		1	RES3-K-PP	03/23/05	24	EPA Primary	0.700		0.200	ND	0.180	J	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.550		0.270	ND
Residence 8		1	RES8-GAR-PP	01/25/06	24	EPA Primary	2.200		0.200	ND	0.500		5.900		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.640		3.900	
Residence 8		1	RES8-GAR-PP-G	10/13/04	Grab	EPA Primary	1.100	J	1.200	ND	2.000	ND	15.000		0.770	ND	1.800	ND	1.200	ND	1.200	ND	NT		2.300	ND	25.000	J
Residence 8		1	RES8-KC-G	10/31/04	Grab	EPA Primary	1.100		0.200	ND	0.630		2.800		0.130	ND	0.160	J	0.200	ND	0.200	ND	NT		0.660		4.500	J
Residence 9		1	RES9-K-PP	08/10/04	24	EPA Primary	1.270		0.200	ND	0.340	ND	0.270	ND	0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.740		0.260	J
Residence 9		1	RES9-K-PP	12/08/04	24	EPA Primary	0.980		0.100	ND	0.350		0.180	J	0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.610		0.270	J
						Number of Samples	56		56		56		56		56		56		56		56		0		56		56	
						Number of Detects	45		1		41		37		0		1		1		0		0		55		43	
						Minimum Detection	0.130		0.120		0.180		0.140		0.000		0.160		0.160		0.000		0.000		0.340		0.140	
						Maximum Detection	63.000		0.120		47.000		15.000		0.000		0.160		0.160		0.000		0.000		1072.000		30.000	
Residence 4	Before mitigation	Cellar	RES4-CELD	03/11/04	24	EPA Duplicate	0.490		0.100	ND	0.520		3.400		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.330		0.400	
			RES4-CEL	03/11/04	24	EPA Primary	0.540		0.100	ND	0.530		3.700		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.700		0.410	
			RES4-CELD	03/30/04	24	EPA Duplicate	0.380		0.100	ND	0.380		2.800		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.650		0.330	
			RES4-CEL	03/30/04	24	EPA Primary	0.360		0.100	ND	0.370		2.700		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.640		0.320	
						Number of Samples	4		4		4		4		4		4		4		4		0		4		4	
						Number of Detects	4		0		4		4		0		0		0		0		0		4		4	
						Minimum Detection	0.360		0.000		0.370		2.700		0.000		0.000		0.000		0.000		0.000		0.330		0.320	
						Maximum Detection	0.540		0.000		0.530		3.700		0.000		0.000		0.000		0.000		0.000		0.700		0.410	
	After ventilation of earthen cellar	Cellar	RES4-CEL	07/21/04	24	Duplicate-EPA	0.320		0.200	ND	0.260	J	2.700		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.630		0.240	J
			RES4-CEL	07/21/04	24	Primary	0.310		0.140	ND	0.360		2.300		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.680		0.270	
			RES4-CELD	08/16/04	24	Duplicate	0.430		0.140	ND	0.240		1.600		0.045	ND	0.210	ND	0.070	ND	0.140	ND	0.700	ND	0.800		0.250	
			RES4-CEL	08/16/04	24	Primary	0.420		0.140	ND	0.240	ND	1.600		0.044	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.700		0.240	
			RES4-CEL	10/27/04	24	Primary	0.230		0.120	ND	0.220		0.770		0.040	ND	0.190	ND	0.061	ND	0.120	ND	0.610	ND	0.620		0.170	ND
			RES4-CELD	12/01/04	24	Duplicate	0.310		0.140	ND	0.500		0.900		0.045	ND	0.210	ND	0.069	ND	0.140	ND	0.690	ND	0.680		0.200	
			RES4-CEL	12/01/04	24	Duplicate-EPA	0.300		0.100	ND	0.530		1.100		0.070	ND	0.150	ND	0.100	ND	0.100	ND	NT		0.620		0.190	J
			RES4-CEL	12/01/04	24	Primary	0.280		0.140	ND	0.720		0.960		0.046	ND	0.220	ND	0.071	ND	0.140	ND	0.710	ND	0.640		0.200	ND
			RES4-CELD	05/11/05	24	Duplicate	0.280		0.130	ND	0.230		1.800		0.042	ND	0.200	ND	0.065	ND	0.130	ND	0.650	ND	0.720		0.180	
			RES4-CEL	05/11/05	24	Primary	0.270		0.130	ND	0.220		1.700		0.040	ND	0.190	ND	0.063	ND	0.120	ND	0.630	ND	0.680		0.180	
			RES4-CEL	2/26/2007	24	EPA Primary	0.240	ND	0.200	ND	0.340	ND	0.750		0.130	ND	0.300	ND	0.200	ND	0.200	ND	NT		0.700		0.270	ND
						Number of Samples	10		10		10		10		10		10		10		10		8		10		10	
						Number of Detects	10		0		9		10		0		0		0		0		0		10		8	
						Minimum Detection	0.230		0.000		0.220		0.770		0.000		0.000		0.000		0.000		0.000		0.620		0.180	
						Maximum Detection	0.430		0.000		0.720		2.700		0.000		0.000		0.000		0.000		0.000		0.800		0.270	

Notes:

1. AM and PM Samples (collected in the morning and afternoon at one location) are counted as one sample
2. The TAGA results are not counted in this summary table
3. ND denotes Non-detected; NT denotes not tested; NA denotes not available.
4. Concentrations are in ug/m3.
5. Co-located samples are counted as discrete samples. Laboratory duplicates and field blanks are not included in the count
6. J flag is used when the value is between the method detection limit and the reporting limit.

TABLE 4-14
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO EPA LONG-TERM GOALS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
Long-Term Exposure Goals		**0.23-23**	**988 3.4-340**	**0.90-90**	**2.7**	**1.2-120**	**400**	**400**	**70**	**139**	**58,900**	**4,370**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											
313 Fairchild Drive	Baseline	0.43	ND	0.85	0.56	0.064	ND	ND	0.2	ND	0.68	0.3	
323 Fairchild Drive	Baseline	0.46	ND	0.56	0.5	ND	ND	ND	ND	ND	0.59	0.3	
369 N. Whisman Rd.	Baseline	0.46	0.88	2.2	1.6	0.12	ND	ND	0.58	ND	3	0.33	
379 N. Whisman Rd.	Baseline	0.35	ND	0.72	0.19	ND	ND	ND	ND	ND	0.65	0.29	
389 N. Whisman Rd.	Baseline	0.4	ND	7.9	2.1	ND	2.1	ND	0.73	ND	0.69	1.1	See Note 1
399 N. Whisman Rd.	Baseline	0.34	ND	8.9	ND	ND	2.9	ND	ND	ND	0.75	0.3	
401 National Ave	Baseline	0.83	0.45	0.75	**51**	ND	0.23	3.9	13	ND	64	33	See Note 2
	After Mitigation	1.5	0.16	1.1	2.2	ND	0.55	0.36	0.87	ND	4	4	
464 Ellis St.	Baseline	0.43	ND	0.65	0.27	ND	ND	ND	ND	ND	0.72	0.41	
466 Ellis St.	Baseline	0.3	0.26	0.7	0.21	ND	0.27	ND	ND	ND	0.73	0.28	
468 Ellis St.	Baseline	1.5	ND	1.7	0.22	ND	ND	ND	ND	ND	0.73	0.35	
515 N. Whisman Rd	Baseline	0.76	ND	0.33	0.18	ND	ND	ND	ND	ND	0.66	0.31	
545 N. Whisman Rd.	Baseline	0.48	ND	0.62	**3.4**	ND	0.62	0.066	ND	ND	0.64	0.29	See Note 3
644 National Ave.	Baseline	0.33	1.3	1.2	**490**	14	0.35	5.2	**190**	1.4	12	2.3	See Note 4
	After Mitigation	0.42	0.14	0.3	**43**	0.12	0.41	0.37	6.5	ND	2.2	0.42	
355/365 E. Middlefield Rd.	Baseline	NT	ND	NT	1.4	ND	NT	ND	0.023	NT	1.5	NT	See Note 5
	After Mitigation	NT	ND	NT	0.3	ND	NT	ND	ND	NT	0.79	NT	
15	Baseline	NT	0.113	13.118	**7.22**	0.577	0.737	0.571	1.309	0.057	NT	5.61	See Note 6
	After Mitigation	NT	0.075	0.84	0.61	1.6	ND	ND	0.98	0.026	NT	0.26	
16	Baseline	NT	0.24	1.2	**15.1**	0.072	ND	0.18	1.1	0.053	NT	0.55	See Note 7
17	Baseline	NT	0.22	10.8	**53.5**	0.76	1.78	0.092	0.94	0.035	NT	2.51	See Note 8
20	Baseline	NT	0.19	1.0	**9.7**	0.008	ND	0.11	1.5	0.065	NT	1.1	

TABLE 4-14
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO EPA LONG-TERM GOALS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
Long-Term Exposure Goals		**0.23-23**	**988 3.4-340**	**0.90-90**	**2.7**	**1.2-120**	**400**	**400**	**70**	**139**	**58,900**	**4,370**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											
N210	Baseline	NT	0.96	2.6	**176**	ND	ND	ND	16.2	0.29	NT	0.29	See Note 9
N211	Baseline	NT	NT	2.2	0.42	ND	ND	ND	ND	NT	NT	NT	
N239	Baseline	NT	NT	1.1	0.99	ND	ND	ND	ND	NT	NT	NT	
N243	Baseline	NT	ND	0.70	0.46	0.047	ND	0.039	0.090	0.034	NT	1.7	
N259	Baseline	NT	NT	1.3	0.61	ND	ND	ND	ND	NT	NT	NT	
501 Ellis Street	Baseline	NT	NT	1.5	**11**	ND	NT	NT	ND	NT	NT	NT	See Note 10
350 Ellis St., Bldg. E	Weekend	0.9	ND	0.33	0.77	ND	0.24	ND	ND	ND	0.83	0.35	See Note 11
	Weekday	0.71	ND	0.31	ND	ND	ND	ND	ND	ND	0.6	ND	
370 Ellis St., Bldg. A	Weekend	0.25	ND	1.8	**3.7**	ND	ND	ND	0.26	ND	0.93	0.36	See Note 12
	Weekday	0.34	0.66	7.6	0.59	ND	ND	ND	ND	ND	1	0.3	
370 Ellis St., Bldg. B	Weekend	0.3	ND	4	**8**	ND	0.37	ND	0.15	ND	0.7	0.2	See Note 13
	Weekday	0.3	ND	3.5	0.26	ND	ND	ND	ND	ND	0.86	0.22	
380 Ellis St., Bldg. C	Weekend	0.34	4.7	1	**2.8**	0.17	ND	ND	1.4	ND	0.76	0.36	See Note 14
	Weekday	1	0.85	3.4	0.44	0.085	ND	0.24	0.31	ND	0.84	0.25	
380 Ellis St., Bldg. D	Weekend	0.2	ND	0.29	0.86	ND	ND	ND	ND	ND	0.71	0.32	See Note 15
	Weekday	0.21	ND	0.25	0.46	ND	0.2	ND	ND	ND	0.59	ND	
401 E. Middlefield Rd.	Baseline	0.26	ND	0.42	0.7	ND	0.44	ND	ND	ND	0.84	0.26	See Note 16
	Ventilation Off	0.53	ND	2.1	**7.6**	0.052	0.27	ND	0.23	ND	1.2	0.4	
415 E. Middlefield Rd.	Baseline	0.54	0.39	3.6	**4.8**	ND	1.1	0.46	5.2	ND	0.89	1.1	See Note 17
	Ventilation Off	9	0.14	1.1	**7.6**	0.12	ND	ND	1.5	4.8	1	0.55	
460 E. Middlefield Rd.	Baseline	1.6	ND	1.1	ND	ND	ND	ND	ND	ND	0.62	0.14	
555 Ellis Street	Baseline	0.43	ND	0.48	0.17	ND	ND	ND	ND	ND	0.65	0.26	

TABLE 4-14
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO EPA LONG-TERM GOALS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
Long-Term Exposure Goals		**0.23-23**	**988 3.4-340**	**0.90-90**	**2.7**	**1.2-120**	**400**	**400**	**70**	**139**	**58,900**	**4,370**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											
645 National Ave.	Baseline	1.3	ND	2.9	2	ND	0.26	0.072	ND	ND	0.84	0.51	
660 National Ave.	Baseline	3.4	ND	1.4	**9**	ND	ND	ND	0.62	2.8	0.88	0.34	See Note 18
	After Mitigation	0.69	ND	0.48	ND	ND	ND	ND	ND	ND	0.82	0.24	
670 National Ave.	Baseline	0.38	ND	1.4	**7.5**	ND	ND	ND	ND	ND	0.8	0.24	
455 E. Middlefield Rd.	Baseline	NT	NT	NT	1.7	ND	NT	NT	ND	NT	NT	NT	See Note 19
487 E. Middlefield Rd.	Baseline	NT	Nt	NT	0.22	ND	NT	NT	ND	NT	NT	NT	
425 National Ave.	Unfinished	NT	0.038	0.31	**8.7**	ND	NT	0.22	0.097	ND	4.2	0.68	See Note 20

Notes:

1. The TCE and PCE results are anomalous. EPA's duplicate sample on the same day and at the same location showed TCE and PCE of 0.3 and 0.47 ug/m3. All other samples collected at the same location showed ND or low TCE concentrations.

2. Mitigation measures include sealing of conduits in the utility room, and operation of an existing exhaust fan in the utility room. Luvers between the ventilated utility room and the central offices were opened to enhance air circulation.

3. Five other samples at the same location showed ND.

4. After the spring 2003 sampling event, open sumps in the basement that collect groundwater were sealed, and two exhaust fans were installed in the basement. Openings in the floor between the basement and 1st floor were sealed. Luvers were installed to faciliate movement of outside air to the basement.

5. All indoor samples showed TCE concentrations less than 2.7 ug/m3. Ventilation system was retrofitted to increase outside makeup air because of TCE concentrations found in pathway samples collected in cracks.

6. All samples subsequent to retrofitting the HVAC system showed TCE concentrations less than 2.7 ug/m3.

7. NASA is planning a remedial action for Building 16.

8. Of the 190 discrete indoor air samples all but one sample (collected in the unoccupied basement) showed TCE concentrations less than 2.7 ug/m3. Outdoor air samples showed at certain times TCE greater than 2.7 ug/m3.

9. In 2006, NASA retrofitted the ventilation system in the building. All indoor air TCE concentrations were reduced to below 2.7 ug/m3. Report from NASA is pending.

TABLE 4-14
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO EPA LONG-TERM GOALS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
Long-Term Exposure Goals		**0.23-23**	**988 3.4-340**	**0.90-90**	**2.7**	**1.2-120**	**400**	**400**	**70**	**139**	**58,900**	**4,370**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											

Notes (Con't):

10. Four samples (including duplicates) at one location in fall 2003 showed TCE ranging from 4.5 to 5.8 ug/m3. Former and subsequent samples at the same location showed TCE less than 2.7 ug/m3, ranging from ND 0.19 to 1.7 ug/m3. The fall 2003 samples were attributed to improper operation of the HVAC system in the vacant portion of the building where these samples were collected. A sample at a different location showed 11 ug/m3 which is anomalous. EPA's co-located sample did not detect TCE. All subsequent samples at the same location did not detect TCE.

11. Four rounds of sampling were conducted on the weekend when one of two HVAC systems does not operate. Two rounds of sampling was conducted on a weekday.

12. Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on a weekday.

13. Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two lrounds of sampling were performed on a weekday. Four indoor locations sampled on the weekends showed TCE up to 5.0, 3.0, 4.0, 8.0 ug/m3. However, all weekday samples were below 2.7 ug/m3.

14. Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on a weekday. Only one weekend sample at an indoor location showed TCE of 2.8 ug/m3.

15. Four rounds were on the weekend. The HVAC system is operational on the weekend. One round of sampling was conducted on a weekday.

16. The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE higher than 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, all TCE concentratio were below the interim action level.

17. The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE higher than 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, TCE concentratio were below the interim action level except for one sample. An EPA duplicate of that sample showed TCE at 0.49 ug/m3.

18. Mitigation measures included refurbishing the ventilation system to induce more makeup air. Indoor air samples collected after implementation of mitigation measures showed non-detectable levels for TCE.

19. One TCE samples showed TCE of 1.7 ug/m3 which appears to be anomalous.

20. Building is not finished, unoccupied, and does not have a ventilation system installed.

19. Maximum concentrations exceeding screening levels are in bold.
20. For NASA data, only the 24-hr samples were used in this summary.
21. ND Denotes Non-detected; NT denotes not tested
22. The TAGA results are not used in this summary table
23. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in this table.

TABLE 4-15
COMPARISON OF MAXIMUM CONCENTRATIONS IN RESIDENCES TO EPA LONG-TERM GOALS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical	Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
Long-Term Exposure Goals	**0.083-8.3**	**520 1.2-120**	**0.32-32**	**1**	**0.11-11**	**210**	**210**	**37**	**73**	**31,000**	**2,300**	
Residence	**Maximum Indoor Air Concentration (ug/m3)**											
619B	NT	NT	NT	0.24	ND	NT	NT	0.21	NT	NT	NT	Vacant and has been demolished
620E	NT	NT	NT	**4.2**	ND	NT	NT	ND	NT	NT	NT	Vacant and has been demolished
620F	NT	NT	NT	**4.2**	ND	NT	NT	0.024	NT	NT	NT	Vacant and has been demolished
C1	NT	NT	NT	0.32	ND	NT	NT	0.018	NT	NT	NT	
Residence 1	1.8	ND	13	0.18	ND	ND	ND	ND	NT	0.57	0.17	
Residence 2	2	0.1	6.1	ND	ND	ND	ND	ND	NT	0.6	0.19	
Residence 3	2.3	ND	0.57	ND	ND	ND	ND	ND	NT	0.56	0.17	
Residence 4	1.3	ND	6.4	**1.3**	ND	1	0.15	0.3	NT	0.68	0.47	Mitigation reduced TCE to below 1
Residence 5	**8.3**	ND	0.81	ND	ND	ND	ND	ND	NT	0.49	ND	
Residence 6	1.4	ND	ND	0.24	ND	ND	ND	ND	NT	0.64	0.15	
Residence 7	3.5	ND	2.2	ND	ND	ND	ND	ND	NT	0.63	0.34	
Residence 8	2.4	ND	0.68	**15**	ND	0.18	ND	ND	NT	1	23	Indoor Source
Residence 9	0.78	ND	0.4	0.2	ND	ND	ND	ND	NT	0.68	0.26	
Residence 10	1.1	ND	0.23	ND	ND	ND	ND	ND	NT	0.62	0.15	
Residence 11	4.8	ND	0.88	**1.4**	0.13	ND	ND	ND	NT	1.2	2.3	Other samples at the same location showed TCE than the interim action level.
Residence 12	1.3	ND	0.41	0.18	ND	ND	ND	ND	NT	0.71	0.17	
Residence 13	**33**	ND	1.1	**10**	ND	ND	ND	ND	NT	0.64	0.45	Maximum TCE concentration not confirmed
Residence 14	2.4	ND	0.24	ND	ND	ND	ND	ND	NT	0.61	0.16	
Residence 15	2.3	ND	0.88	0.7	ND	ND	ND	ND	NT	0.77	1.5	
Residence 16	3.2	ND	0.33	0.7	ND	ND	ND	ND	NT	0.7	0.15	
Residence 17	0.88	ND	ND	ND	ND	ND	ND	ND	NT	0.65	ND	

Notes:

1. Maximum concentrations exceeding screening levels are in bold.
3. ND denotes Non-detected; NT denotes not tested
2. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in this table.

TABLE 4-16
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO BACKGROUND LEVELS
MEW STUDYAREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
95th Percentile of Background Concentration (Scenario 1-Scenario 2 see Note 21)		**0.42**	**0.23-0.25**	**0.75**	**0.57-1.8**	**0.3-0.32**	**0.22-0.23**	**0.037-0.038**	**0.084-0.09**	**0.02**	**0.62**	**0.33-0.34**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											
313 Fairchild Drive	Baseline	**0.43**	ND	**0.85**	0.56	0.064	ND	ND	**0.2**	ND	**0.68**	0.3	
323 Fairchild Drive	Baseline	**0.46**	ND	0.56	0.5	ND	ND	ND	ND	ND	0.59	0.3	
369 N. Whisman Rd.	Baseline	**0.46**	0.88	**2.2**	**1.6**	0.12	ND	ND	**0.58**	ND	**3**	0.33	
379 N. Whisman Rd.	Baseline	**0.35**	ND	0.72	0.19	ND	ND	ND	ND	ND	**0.65**	0.29	
389 N. Whisman Rd.	Baseline	**0.4**	ND	7.9	**2.1**	ND	**2.1**	ND	**0.73**	ND	**0.69**	**1.1**	See Note 1
399 N. Whisman Rd.	Baseline	0.34	ND	**8.9**	ND	ND	**2.9**	ND	ND	ND	**0.75**	0.3	
401 National Ave	Baseline	**0.83**	**0.45**	0.75	**51**	ND	0.23	**3.9**	**13**	ND	**64**	**33**	See Note 2
	After Mitigation	**1.5**	0.16	**1.1**	**2.2**	ND	0.55	**0.36**	**0.87**	ND	**4**	**4**	
464 Ellis St.	Baseline	**0.43**	ND	0.65	0.27	ND	ND	ND	ND	ND	**0.72**	**0.41**	
466 Ellis St.	Baseline	**0.3**	**0.26**	0.7	0.21	ND	0.27	ND	ND	ND	**0.73**	0.28	
468 Ellis St.	Baseline	**1.5**	ND	**1.7**	0.22	ND	ND	ND	ND	ND	**0.73**	**0.35**	
515 N. Whisman Rd	Baseline	**0.76**	ND	0.33	0.18	ND	ND	ND	ND	ND	**0.66**	0.31	
545 N. Whisman Rd.	Baseline	**0.48**	ND	0.62	**3.4**	ND	0.62	**0.066**	ND	ND	**0.64**	0.29	See Note 3
644 National Ave.	Baseline	0.33	**1.3**	**1.2**	**490**	**14**	0.35	**5.2**	**190**	**1.4**	**12**	**2.3**	See Note 4
	After Mitigation	0.42	0.14	0.3	**43**	0.12	0.41	**0.37**	**6.5**	ND	**2.2**	**0.42**	
355/365 E. Middlefield Rd.	Baseline	NT	ND	NT	**1.4**	ND	NT	ND	0.023	NT	**1.5**	NT	See Note 5
	After Mitigation	NT	ND	NT	0.3	ND	NT	ND	ND	NT	**0.79**	NT	
15	Baseline	NT	0.113	**13.1**	**7.22**	**0.58**	0.74	**0.57**	**1.31**	0.057	NT	**5.61**	See Note 6
	After Mitigation	NT	0.075	**0.84**	**0.61**	**1.6**	ND	ND	**0.98**	0.026	NT	0.26	
16	Baseline	NT	**0.24**	**1.2**	**15.1**	0.072	ND	**0.18**	**1.1**	0.053	NT	**0.55**	See Note 7
17	Baseline	NT	0.22	**10.8**	**53.5**	**0.76**	1.78	**0.092**	**0.94**	0.035	NT	**2.51**	See Note 8
20	Baseline	NT	0.19	**1.0**	**9.7**	0.008	ND	**0.11**	**1.5**	0.065	NT	**1.1**	
N210	Baseline	NT	**0.96**	**2.6**	**176**	ND	ND	ND	**16.2**	0.29	NT	0.29	See Note 9
N211	Baseline	NT	NT	**2.2**	0.42	ND	ND	ND	ND	NT	NT	NT	
N239	Baseline	NT	NT	**1.1**	**0.99**	ND	ND	ND	ND	NT	NT	NT	

TABLE 4-16
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO BACKGROUND LEVELS
MEW STUDYAREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
95th Percentile of Background Concentration (Scenario 1-Scenario 2 see Note 21)		**0.42**	**0.23-0.25**	**0.75**	**0.57-1.8**	**0.3-0.32**	**0.22-0.23**	**0.037-0.038**	**0.084-0.09**	**0.02**	**0.62**	**0.33-0.34**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											
N243	Baseline	NT	ND	0.70	0.46	0.047	ND	0.039	0.090	0.034	NT	**1.7**	
N259	Baseline	NT	NT	**1.3**	**0.61**	ND	ND	ND	ND	NT	NT	NT	
501 Ellis Street	Baseline	NT	NT	**1.5**	**11**	ND	NT	NT	ND	NT	NT	NT	See Note 10
350 Ellis St., Bldg. E	Weekend	**0.9**	ND	0.33	**0.77**	ND	0.24	ND	ND	ND	**0.83**	**0.35**	See Note 11
	Weekday	**0.71**	ND	0.31	ND	ND	ND	ND	ND	ND	0.6	ND	
370 Ellis St., Bldg. A	Weekend	0.25	ND	**1.8**	**3.7**	ND	ND	ND	**0.26**	ND	**0.93**	**0.36**	See Note 12
	Weekday	0.34	**0.66**	**7.6**	**0.59**	ND	ND	ND	ND	ND	**1**	0.3	
370 Ellis St., Bldg. B	Weekend	0.3	ND	**4**	**8**	ND	0.37	ND	**0.15**	ND	**0.7**	0.2	See Note 13
	Weekday	0.3	ND	**3.5**	0.26	ND	ND	ND	ND	ND	**0.86**	0.22	
380 Ellis St., Bldg. C	Weekend	0.34	**4.7**	**1**	**2.8**	0.17	ND	ND	**1.4**	ND	**0.76**	**0.36**	See Note 14
	Weekday	**1**	**0.85**	**3.4**	0.44	0.085	ND	**0.24**	**0.31**	ND	**0.84**	0.25	
380 Ellis St., Bldg. D	Weekend	0.2	ND	0.29	**0.86**	ND	ND	ND	ND	ND	**0.71**	0.32	See Note 15
	Weekday	0.21	ND	0.25	0.46	ND	0.2	ND	ND	ND	0.59	ND	
401 E. Middlefield Rd.	Baseline	0.26	ND	0.42	**0.7**	ND	0.44	ND	ND	ND	**0.84**	0.26	See Note 16
	Ventilation Off	**0.53**	ND	**2.1**	**7.6**	0.052	0.27	ND	**0.23**	ND	**1.2**	**0.4**	
415 E. Middlefield Rd.	Baseline	**0.54**	**0.39**	**3.6**	**4.8**	ND	**1.1**	**0.46**	**5.2**	ND	**0.89**	**1.1**	See Note 17
	Ventilation Off	**9**	0.14	**1.1**	**7.6**	0.12	ND	ND	**1.5**	**4.8**	**1**	**0.55**	
460 E. Middlefield Rd.	Baseline	**1.6**	ND	**1.1**	ND	ND	ND	ND	ND	ND	0.62	0.14	
555 Ellis Street	Baseline	**0.43**	ND	0.48	0.17	ND	ND	ND	ND	ND	**0.65**	0.26	
645 National Ave.	Baseline	**1.3**	ND	**2.9**	**2**	ND	0.26	**0.072**	ND	ND	**0.84**	**0.51**	
660 National Ave.	Baseline	**3.4**	ND	**1.4**	**9**	ND	ND	ND	**0.62**	**2.8**	**0.88**	**0.34**	See Note 18
	After Mitigation	**0.69**	ND	0.48	ND	ND	ND	ND	ND	ND	**0.82**	0.24	
670 National Ave.	Baseline	0.38	ND	**1.4**	**7.5**	ND	ND	ND	ND	ND	**0.8**	0.24	

TABLE 4-16
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO BACKGROUND LEVELS
MEW STUDYAREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
95th Percentile of Background Concentration (Scenario 1-Scenario 2 see Note 21)		**0.42**	**0.23-0.25**	**0.75**	**0.57-1.8**	**0.3-0.32**	**0.22-0.23**	**0.037-0.038**	**0.084-0.09**	**0.02**	**0.62**	**0.33-0.34**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											
455 E. Middlefield Rd.	Baseline	NT	NT	NT	**1.7**	ND	NT	NT	ND	NT	NT	NT	See Note 19
487 E. Middlefield Rd.	Baseline	NT	NT	NT	0.22	ND	NT	NT	ND	NT	NT	NT	
425 National Ave.	Unfinished	NT	0.038	0.31	**8.7**	ND	NT	**0.22**	0.097	ND	**4.2**	**0.68**	See Note 20

Notes:

1. The TCE and PCE results are anomalous. EPA's duplicate sample on the same day and at the same location showed TCE and PCE of 0.3 and 0.47 ug/m3. All other samples collected at the same location showed ND or low TCE concentrations.

2. Mitigation measures include sealing of conduits in the utility room, and operation of an existing exhaust fan in the utility room. Luvers between the ventilated utility room and the central offices were opened to enhance air circulation.

3. Five other samples at the same location showed ND.

4. After the spring 2003 sampling event, open sumps in the basement that collect groundwater were sealed, and two exhaust fans were installed in the basement. Openings in the floor between the basement and 1st floor were sealed. Luvers were installed to faciliate movement of outside air to the basement.

5. All indoor samples showed TCE concentrations less than 2.7 ug/m3. Ventilation system was retrofitted to increase outside makeup air because of TCE concentrations found in pathway samples collected in cracks.

6. All samples subsequent to retrofitting the HVAC system showed TCE concentrations less than 2.7 ug/m3.

7. NASA is planning a remedial action for Building 16.

8. Of the 190 discrete indoor air samples all but one sample (collected in the unoccupied basement) showed TCE concentrations less than 2.7 ug/m3. Outdoor air samples showed at certain times TCE greater than 2.7 ug/m3.

9. In 2006, NASA retrofitted the ventilation system in the building. All indoor air TCE concentrations were reduced to below 2.7 ug/m3. Report from NASA is pending.

10. Four samples (including duplicates) at one location in fall 2003 showed TCE ranging from 4.5 to 5.8 ug/m3. Former and subsequent samples at the same location showed TCE less than 2.7 ug/m3, ranging from ND 0.19 to 1.7 ug/m3. The fall 2003 samples were attributed to improper operation of the HVAC system in the vacant portion of the building where these samples were collected. A sample at a different location showed 11 ug/m3 which is anomalous. EPA's co-located sample did not detect TCE. All subsequent samples at the same location did not detect TCE.

11. Four rounds of sampling were conducted on the weekend when one of two HVAC systems does not operate. Two rounds of sampling was conducted on a weekday.

12. Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on a weekday.

13. Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two lrounds of sampling were performed on a weekday. Four indoor locations sampled on the weekends showed TCE up to 5.0, 3.0, 4.0, 8.0 ug/m3. However, all weekday samples were below 2.7 ug/m3.

14. Because of access demands, four rounds of sampling were conducted on the weekend when the HVAC system does not operate. Two rounds of sampling were performed on a weekday. Only one weekend sample at an indoor location showed TCE of 2.8 ug/m3.

Notes (con't):

TABLE 4-16
COMPARISON OF MAXIMUM CONCENTRATIONS IN COMMERCIAL BUILDINGS TO BACKGROUND LEVELS
MEW STUDYAREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical		Chloroform	1,1-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
95th Percentile of Background Concentration (Scenario 1-Scenario 2 see Note 21)		**0.42**	**0.23-0.25**	**0.75**	**0.57-1.8**	**0.3-0.32**	**0.22-0.23**	**0.037-0.038**	**0.084-0.09**	**0.02**	**0.62**	**0.33-0.34**	
Building	**Condition**	**Maximum Indoor Air Concentration (ug/m3)**											

15. Four rounds were on the weekend. The HVAC system is operational on the weekend. One round of sampling was conducted on a weekday.

16. The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE higher than 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, all TCE concentratio were below the interim action level.

17. The building was not occupied when it was sampled. When the ventilation system was off, indoor air samples showed TCE higher than 2.7 ug/m3. When the ventilation system was on, as would be the normal operation during occupancy, TCE concentratio were below the interim action level except for one sample. An EPA duplicate of that sample showed TCE at 0.49 ug/m3.

18. Mitigation measures included refurbishing the ventilation system to induce more makeup air. Indoor air samples collected after implementation of mitigation measures showed non-detectable levels for TCE.

19. One TCE samples showed TCE of 1.7 ug/m3 which appears to be anomalous.

20. Building is not finished, unoccupied, and does not have a ventilation system installed.

21. Scenario 1 uses all data from Background Station B258. Scenario 2 does not use data between September 2003 and January 2004 when elevated TCE concentrations were observed at the Station.

22. Maximum concentrations exceeding screening levels are in bold.

23. For NASA data, only the 24-hr samples were used in this summary.

24. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in this table.

TABLE 4-17
COMPARISON OF MAXIMUM CONCENTRATIONS IN RESIDENCES TO BACKGROUND LEVELS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Chemical	Chloroform	1,1-DCA	1,2-DCA	PCE	TCE	Vinyl Chloride	1,2-DCB	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	Comments
95th Percentile of Background Concentration (Scenario 1-Scenario 2 see Note 1)	**0.42**	**0.23-0.25**	**0.07**	**0.75**	**0.57-1.8**	**0.3-0.32**	**0.22-0.23**	**0.037-0.038**	**0.084-0.09**	**0.02**	**0.62**	**0.33-0.34**	
Residence	**Maximum Indoor Air Concentration (ug/m3)**												
619B	NT	NT	NT	NT	0.24	ND	NT	NT	**0.21**	NT	NT	NT	Vacant and has been demolished
620E	NT	NT	NT	NT	**4.2**	ND	NT	NT	ND	NT	NT	NT	Vacant and has been demolished
620F	NT	NT	NT	NT	**4.2**	ND	NT	NT	0.024	NT	NT	NT	Vacant and has been demolished
C1	NT	NT	NT	NT	0.32	ND	NT	NT	0.018	NT	NT	NT	
Residence 1	**1.8**	ND	NT	**13**	0.18	ND	ND	ND	ND	NT	0.57	0.17	
Residence 2	**2**	0.1	NT	**6.1**	ND	ND	ND	ND	ND	NT	0.6	0.19	
Residence 3	**2.3**	ND	0.13	0.57	ND	ND	ND	ND	ND	NT	0.56	0.17	
Residence 4	**1.3**	ND	0.2	**6.4**	**1.3**	ND	**1**	**0.15**	**0.3**	NT	**0.68**	**0.47**	Mitigation reduced TCE to below 1
Residence 5	**8.3**	ND	**0.44**	**0.81**	ND	ND	ND	ND	ND	NT	0.49	ND	
Residence 6	**1.4**	ND	ND	ND	0.24	ND	ND	ND	ND	NT	**0.64**	0.15	
Residence 7	**3.5**	ND	0.19	**2.2**	ND	ND	ND	ND	ND	NT	**0.63**	**0.34**	
Residence 8	**2.4**	ND	0.15	0.68	**15**	ND	**0.18**	ND	ND	NT	**1**	**23**	Indoor Source of TCE
Residence 9	**0.78**	ND	0.14	0.4	0.2	ND	ND	ND	ND	NT	**0.68**	0.26	
Residence 10	**1.1**	ND	ND	0.23	ND	ND	ND	ND	ND	NT	**0.62**	0.15	
Residence 11	**4.8**	ND	**0.73**	**0.88**	1.4	0.13	ND	ND	ND	NT	**1.2**	**2.3**	Other samples at the same location showed TCE less than the interim action level.
Residence 12	**1.3**	ND	0.18	0.41	0.18	ND	ND	ND	ND	NT	**0.71**	0.17	
Residence 13	**33**	ND	ND	**1.1**	**10**	ND	ND	ND	ND	NT	**0.64**	**0.45**	Maximum TCE concentration not confirmed
Residence 14	**2.4**	ND	0.17	0.24	ND	ND	ND	ND	ND	NT	**0.61**	0.16	
Residence 15	**2.3**	ND	ND	**0.88**	0.7	ND	ND	ND	ND	NT	**0.77**	**1.5**	
Residence 16	**3.2**	ND	ND	0.33	0.7	ND	ND	ND	ND	NT	**0.7**	0.15	
Residence 17	**0.88**	ND	ND	ND	ND	ND	ND	ND	ND	NT	**0.65**	ND	

Notes:

1. Scenario 1 uses all data from Background Station B258. Scenario 2 does not use data between September 2003 and January 2004 when elevated TCE concentrations were observed at the Station.
2. Maximum concentrations exceeding screening levels are in bold.
3. ND Denotes Non-detected; NT denotes not tested
4. Co-located samples (MEW Companies, NASA, or EPA) are counted as discrete samples. Laboratory duplicates and field blanks are not included in this table.

TABLE 4-18
STATISTICAL COMPARISON OF INDOOR AND OUTDOOR TCE CONCENTRATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

	Indoor		Outdoor		Wilcoxon Test		
Building	**N**	**Mean**	**N**	**Mean**	**Statistic**	***P*-value**	**Notes**
15 (no HVAC)	300	1.506	146	0.494	13.095	**0.000**	
15, with HVAC	50	0.342	29	0.253	5.263	**0.000**	
16	57	5.629	26	0.161	6.249	**0.000**	
20	55	3.553	36	0.599	7.017	**0.000**	
313 Fairchild Dr.	18	0.214	8	0.190	0.414	0.339	1
323 Fairchild Dr.	20	0.211	4	0.178	2.365	**0.009**	1
350 Ellis St., Bldg. E, vent off (weekend)	14	0.308	11	1.942	-0.610	0.729	1
350 Ellis St., Bldg. E, vent on	9	0.267	11	1.942	-1.678	0.953	1
355/365 E. Middlefield Rd., low vent	14	0.481	9	0.220	1.861	**0.031**	
355/365 E. Middlefield Rd., vent on	12	0.154	9	0.220	-0.358	0.640	
369 N. Whisman Rd.	19	0.366	4	0.188	1.359	0.087	1
370 Ellis St., Bldg. A, vent off (weekend)	21	1.149	6	0.200	3.443	**0.000**	1
370 Ellis St., Bldg. A, vent on	8	0.441	6	0.200	3.037	**0.001**	1
370 Ellis St., Bldg. B, vent off (weekend)	23	2.120	10	0.396	3.411	**0.000**	1
370 Ellis St., Bldg. B, vent on	6	0.202	10	0.396	-0.772	0.780	1
379 N. Whisman Rd.	19	0.191	7	0.186	0.663	0.254	1
380 Ellis St., Bldg. C, vent off (weekend)	43	0.542	16	0.183	5.263	**0.000**	1
380 Ellis St., Bldg. C, vent on	6	0.270	16	0.183	2.429	**0.008**	1
380 Ellis St., Bldg. D	27	0.411	5	0.186	2.151	**0.016**	1
389 N. Whisman Rd.	18	0.298	5	0.182	0.930	0.176	1
399 N. Whisman Rd.	18	0.181	6	0.187	-1.015	0.845	1
401 E. Middlefield Rd., vent off	11	5.245	8	0.193	3.616	**0.000**	1
401 E. Middlefield Rd., vent on	17	0.221	8	0.193	0.099	0.461	1
401 National Ave. (not sealed)	9	22.220	12	0.180	3.618	**0.000**	1
401 National Ave., sealed	15	1.600	12	0.180	3.384	**0.000**	1
415 E. Middlefield Rd., vent off	10	6.650	2	0.190	2.059	**0.020**	1
415 E. Middlefield Rd., vent on	17	0.525	2	0.190	1.690	**0.046**	1
425 National Ave.	12	7.908	4	0.125	2.854	**0.002**	
455 E. Middlefield Rd.	21	0.240	9	0.167	0.068	0.473	1
460 E. Middlefield Rd.	12	0.231	2	0.220	0.307	0.379	1
464 Ellis St.	20	0.189	4	0.188	-0.426	0.665	1
466 Ellis St.	17	0.189	7	0.179	2.030	**0.021**	1
468 Ellis St.	19	0.189	6	0.187	-0.598	0.725	1
487 E. Middlefield Rd.	18	0.174	4	0.145	0.692	0.244	1
501 Ellis St.	35	1.441	10	0.144	3.992	**0.000**	1
515 N. Whisman Rd	18	0.193	5	0.182	1.595	0.055	1
545 N. Whisman Rd.	21	0.486	8	0.284	-0.949	0.829	1
555 Ellis St.	4	0.165	1	0.180	not tested		
645 National Ave.	10	0.656	1	0.200	not tested		
660 National Ave., low vent	14	2.898	3	0.217	147.000	**0.001**	
660 National Ave., vent on	6	0.183	3	0.217	-1.299	0.903	1
670 National Ave.	7	4.871	1	0.190	not tested		
N210	86	12.583	21	0.530	4.640	**0.000**	
N211	13	0.090	4	0.671	-3.002	0.999	1
N239	7	0.709	4	0.671	46.000	0.264	
N259	5	0.460	2	0.506	19.000	0.714	
17, first floor	158	0.855	150	0.482	6.687	**0.000**	
17, basement	166	0.723	150	0.482	8.596	**0.000**	
644 National Ave., first & second floors (no exhaust)	11	48.000	6	1.185	132.000	**0.000**	
644 National Ave., basement (no exhaust)	8	286.250	6	1.185	3.037	**0.001**	
644 National Ave., exhaust, first & second floors	8	0.301	6	0.307	-0.455	0.676	1
644 National Ave., exhaust, basement	9	28.111	6	0.307	3.131	**0.001**	1
N243, first floor	15	0.217	12	0.262	195.000	0.772	
N243, basement	43	0.195	12	0.262	1139.000	0.908	

Notes:

Bold indicates indoor concentration significantly higher than outdoor (P<0.05)

1. Test results may be impacted by the large number of non-detected concentrations (>50% for indoor or outdoor)

TABLE 4-19
SUMMARY OF TCE INDOOR AIR SCREENING EVALUATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Indoor Statistically > Outdoor Ambient[1]?	Maximum Indoor TCE Concentration Greater than Background Outdoor[2]?	Maximum Indoor TCE Concentrations above Interim Action Level[3]?
313 Fairchild Drive	no	no	no
323 Fairchild Drive	yes	no	no
369 N. Whisman Rd.	no	yes	no
379 N. Whisman Rd.	no	no	no
389 N. Whisman Rd.	no	yes	no
399 N. Whisman Rd.	no	no	no
401 National Ave	no	yes	yes - prior to mitigation no - after mitigation
464 Ellis St.	no	no	no
466 Ellis St.	yes	no	no
468 Ellis St.	no	no	no
515 N. Whisman Rd	no	no	no
545 N. Whisman Rd.	no	yes	No (not including a sampling event where the results could not be confirmed)
644 National Ave. (See Note 5)	Yes - before mitigation No - 1st & 2nd floor after mitigation Yes - in unoccupied basement after mitigation	yes	Yes - before mitigation No - 1st & 2nd floor after mitigation Yes - in unoccupied basement after mitigation
355/365 E. Middlefield Rd.	yes - before mitigation no - after mitigation	yes - before mitigation no - after mitigation	no
501 Ellis Street	yes	yes	No - when all HVAC systems were operating (not including unconfirmed single maximum TCE concentration) yes - when not all HVAC systems were operating
401 E. Middlefield Rd.	no	yes	No
415 E. Middlefield Rd.	yes	yes	No - when ventilation system on (not including unconfirmed single maximum TCE concentration) Yes - when ventilation system off
370 Ellis St., Bldg. A	yes	yes	No - when ventilation system on Yes - when ventilation system off
370 Ellis St., Bldg. B	No	No - when ventilation system on Yes - when ventilation system off	No - when ventilation system on Yes - when ventilation system off

TABLE 4-19
SUMMARY OF TCE INDOOR AIR SCREENING EVALUATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Indoor Statistically > Outdoor Ambient[1]?	Maximum Indoor TCE Concentration Greater than Background Outdoor[2]?	Maximum Indoor TCE Concentrations above Interim Action Level[3]?
380 Ellis St., Bldg. C	yes	No - when ventilation system on Yes - when ventilation system off	No - when ventilation system on Yes - when ventilation system off
380 Ellis St., Bldg. D	yes	No - when ventilation system on Yes - when ventilation system off	no
350 Ellis St., Bldg. E	no	No - when ventilation system on Yes - when ventilation system off	no
455 E. Middlefield Rd.	no	yes	no
487 E. Middlefield Rd.	no	no	no
425 National Ave. (See Note 6)	yes	yes	yes
Building 15	yes	yes	yes - prior to mitigation no - after mitigation
Building 16	yes	yes	yes
Building 17	yes	yes	yes
Building 20	yes	yes	yes
N210	yes	yes	yes
N211	no	no	no
N239	no	yes	no
N243	no	no	no
N259	no	yes	no
555 Ellis Street	See Note 4	no	no
460 E Middlefield Rd	no	no	no
645 National Ave.		yes	no
660 National Ave. (See Note 5)	yes - prior to mitigation no - after mitigation	yes - prior to mitigation no - after mitigation	yes - prior to mitigation no - after mitigation
670 National Ave. (See Note 5)	See Note 4	yes	yes
Residence 1	See Note 4	no	no
Residence 2	See Note 4	no	no
Residence 3	See Note 4	no	no
Residence 4	See Note 4	no	no
Residence 5	See Note 4	no	no
Residence 6	See Note 4	no	no
Residence 7	See Note 4	no	no
Residence 8	See Note 4	yes - indoor source	yes-indoor source
Residence 9	See Note 4	no	no
Residence 10	See Note 4	no	no
Residence 11	See Note 4	yes	yes-maximum TCE concentration not confirmed
Residence 12	See Note 4	no	no
Residence 13	See Note 4	yes-maximum TCE concentration not confirmed	yes-maximum TCE concentration not confirmed

TABLE 4-19
SUMMARY OF TCE INDOOR AIR SCREENING EVALUATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Indoor Statistically > Outdoor Ambient[1]?	Maximum Indoor TCE Concentration Greater than Background Outdoor[2]?	Maximum Indoor TCE Concentrations above Interim Action Level[3]?
Residence 14	See Note 4	no	no
Residence 15	See Note 4	yes	no
Residence 16	See Note 4	yes	no
Residence 17	See Note 4	no	no

Notes:

1. See Section 4.3 and Table 4-18 for details. A statstical comparison was not performed for 555 Ellis, 645 National, 670 National and all residences because the dataset does not support the calculations. Many of the statistical results may be impacted by the large number of non-detected concentrations (>50% for indoor or outdoor).

2. See Section 4.2.1, Appendix C, and Tables 4-16 & 4-17 for details. Two scenarios were used for background depending on data from NASA Background Station B258. This table uses the lower of the two TCE background values for comparison (0.57 ug/m3).

3. TCE Screening levels of 2.7 and 1.0 ug/m3 were used for commercial and residential buildings, respectively.

4. Insufficient data are available to perform statsitical analyses to compare indoor to oudoor concentrations.

5. Building was sold and vacated in 2007, and redevelopment plans include demolishing building

6. Building unfinished and unoccupied during sampling.

TABLE 5-1
SUMMARY OF BUILDING CHARACTERISTICS, SOURCES, AND SAMPLING CONDITIONS FOR COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

		Building Characteristics					Subsurface Source Information			Sampling Conditions				TCE Results[1]						
PRP	Building	Construction Type	Year of Construction	HVAC Mode	Estimated Air Exchange Rate (1/hr)	Vapor Barrier Present?	TCE Groundwater Concentration[2]	Depth to Groundwater (ft bgs)	Soil Source Area?	Ventilation Status	Sampled Floor	Occupied/ Unoccupied	Remedial Conditions[3]	No. Samples	No. of Detects	Minimum Detected Concentration	Average Concentration	Maximum Detected Concentration	SD of Concentrations	No. Detects > 2.7 ug/m3
Fairchild	313 Fairchild Drive	Slab-on-Grade	1999	Economizer	1.85	Yes	A	13	No	On	1	Occupied	Baseline	16	1	0.56	0.123125	0.56	0.116545771	0
Fairchild	323 Fairchild Drive	Slab-on-Grade	1999	Economizer/Manual	1.73	Yes	A	15	Yes	On	1	Occupied	Baseline	12	2	0.19	0.114166667	0.24	0.048422071	0
Fairchild	323 Fairchild Drive	Slab-on-Grade/Kitchen-Cafeteria	1999	Economizer/Manual	1.73	Yes	A	15	Yes	On	1	Occupied	Baseline	3	1	0.5	0.23	0.5	0.233880311	0
Fairchild	369 N. Whisman Rd.	Slab-on-Grade	1998	Economizer	1.64	Yes	C	12	Yes	On	1	Occupied	Baseline	16	9	0.17	0.3303125	1.6	0.382903246	0
Fairchild	379 N. Whisman Rd.	Slab-on-Grade	1998	Economizer	1.72	Yes	C	13.5	Yes	On	1	Occupied	Baseline	16	1	0.19	0.0996875	0.19	0.024390487	0
Fairchild	389 N. Whisman Rd.	Slab-on-Grade	1998	Economizer	1.72	Yes	B	18	No	On	1	Occupied	Baseline	16	1	2.1 (5)	0.218125	2.1 (5)	0.501842854	0
Fairchild	399 N. Whisman Rd.	Slab-on-Grade	1998	Economizer	1.64	Yes	B	15.5	No	On	1	Occupied	Baseline	16	0	ND	0.09125	ND	0.003872983	0
Fairchild	401 National Ave	Slab-on-Grade	1963	None	Unknown	No	C	15	Yes	Low	1	Occupied	SC+EV	7	5	0.2	0.922857143	2	0.947447699	0
Fairchild	401 National Ave	Slab-on-Grade	1963	None	Unknown	No	C	15	Yes	Natural	1	Occupied	Baseline	10	9	0.22	15.328	45	19.19032905	5
Fairchild	464 Ellis St.	Slab-on-Grade	1998	Economizer	1.3	Yes	A	10.5	No	On	1	Unoccupied	Baseline	16	2	0.22	0.11125	0.27	0.053119362	0
Fairchild	466 Ellis St.	Slab-on-Grade	1998	Economizer	1.18	Yes	B	13	No	On	1	Occupied	Baseline	16	0		0.09375	ND	0.002886751	0
Fairchild	468 Ellis St.	Slab-on-Grade	1998	Economizer	1.3	Yes	B	13.5	No	On	1	Occupied	Baseline	4	1	0.22	0.125	0.22	0.063377178	0
Fairchild	468 Ellis St.	Slab-on-Grade/Kitchen-Cafeteria	1998	Economizer	1.3	Yes	B	13.5	No	On	1	Occupied	Baseline	12	0	ND	0.092083333	ND	0.003964807	0
Fairchild	515 N. Whisman Rd	Slab-on-Grade	2000	Economizer	1.7	No	B	20	Yes	On	1	Unoccupied	Baseline	16	1	0.18	0.1025	0.18	0.021984843	0
Fairchild	545 N. Whisman Rd.	Slab-on-Grade	2000	Economizer	1.75	No	B	17	Yes	On	1	Occupied	Baseline	16	1	3.3 (4)	0.2928125	3.3 (4)	0.801930938	1
Fairchild	644 National Ave.	Basement	1963	Manual	Unknown	No	C	11	Yes	Natural	1	Occupied	Baseline	4	4	26	35	40	6.218252702	4
Fairchild	644 National Ave.	Basement	1963	Manual	Unknown	No	C	11	Yes	Natural	1	Occupied	CS	4	2	0.24	0.1725	0.26	0.089953692	0
Fairchild	644 National Ave.	Basement	1963	Manual	Unknown	No	C	11	Yes	Natural	2	Occupied	Baseline	3	3	50	74.66666667	94	22.4796204	3
Fairchild	644 National Ave.	Basement	1963	Manual	Unknown	No	C	11	Yes	Natural	2	Occupied	CS	2	1	0.56	0.33	0.56	0.325269119	0
Fairchild	644 National Ave.	Basement	1963	Manual	Unknown	No	C	11	Yes	Off	Basement	Unoccupied	Baseline	5	5	190	288	490	119.2476415	5
Fairchild	644 National Ave.	Basement	1963	Manual	Unknown	No	C	11	Yes	On	Basement	Unoccupied	SC+EV	8	8	14	28.625	43	11.18592866	8
Intel	355/365 E. Middlefield Rd.	Slab-on-Grade	1960s	Manual	1.2	No	B	14	Yes	On	1	Occupied	SC+EV	7	6	0.091	0.168	0.3	0.086831254	0
Intel	355/365 E. Middlefield Rd.	Slab-on-Grade	1960s	Manual	1.2	No	B	14	Yes	On	1	Unoccupied	SC+EV	3	2	0.017	0.097333333	0.18	0.081525047	0
Intel	355/365 E. Middlefield Rd.	Slab-on-Grade	1960s	Manual	Unknown	No	B	14	Yes	Low	1	Occupied	Baseline	4	4	0.61	0.9375	1.4	0.332703572	0
Intel	355/365 E. Middlefield Rd.	Slab-on-Grade	1960s	Manual	Unknown	No	B	14	Yes	Low	1	Unoccupied	Baseline	8	8	0.14	0.19375	0.35	0.066962143	0
NASA	15	Slab-on-grade	Unknown	Economizer	Unknown	No	B	7.5	No	Low	1	Occupied	Baseline	267	266	0.231217839	1.5150216	7.224716308	1.002252151	27
NASA	15	Slab-on-grade	Unknown	Economizer	Unknown	No	B	7.5	No	On	1	Occupied	EV	44	44	0.160059124	0.336229153	0.607142616	0.130621035	0
NASA	16	Slab-on-grade	Unknown	None	Unknown	No	B	7.5	No	Natural	1	Occupied	Baseline	48	48	0.088293416	5.63481077	15.10727858	4.696591231	29
NASA	17	Basement	Unknown	None	Unknown	No	A	7	No	Natural	1	Occupied	Baseline	139	139	0.043578211	0.895308942	53.45218312	4.509179894	1
NASA	17	Basement	Unknown	None	Unknown	No	A	7	No	Natural	Basement	Occupied	Baseline	142	141	0.077256739	0.737088004	3.084963578	0.544713025	1
NASA	20	Basement	Unknown	None	Unknown	No	A	7.5	No	Off	1	Unoccupied	Baseline	49	49	0.186743475	3.603919642	9.68100051	2.067420682	30
NASA	N210	Pit/Slab-on-grade	Unknown	Manual	Unknown	No	C	6.5	No	On	1	Occupied	Baseline	70	69	0.222917784	11.95021394	110.4388586	18.50756401	35
NASA	N210	Pit/Slab-on-grade	Unknown	Manual	Unknown	No	C	6.5	No	On	2	Occupied	Baseline	4	4	0.301763391	1.568643097	2.974481806	1.411551024	1
NASA	N211	Slab-on-grade/Hangar	Unknown	Economizer	Unknown	No	A	8.5	No	On	1	Occupied	Baseline	10	0	ND	0.023284966	ND	0.001388189	0
NASA	N211	Slab-on-grade/Hangar	Unknown	Economizer	Unknown	No	A	8.5	No	On	2	Occupied	Baseline	2	1	0.418630773	0.223099973	0.418630773	0.276522309	0
NASA	N239	Slab-on-grade	Unknown	Manual	Unknown	No	B	7.5	No	On	1	Occupied	Baseline	6	6	0.445653551	0.689891495	0.992490218	0.182352393	0
NASA	N243	Basement/Slab-on-grade	Unknown	Economizer/manual	Unknown	No	B	9.5	No	On	1	Occupied	Baseline	13	13	0.060609249	0.219167177	0.435498843	0.107677504	0
NASA	N243	Basement/Slab-on-grade	Unknown	Economizer/manual	Unknown	No	B	9.5	No	On	Basement	Occupied	Baseline	38	37	0.03141391	0.19674504	0.460948394	0.125557858	0
NASA	N259	Slab-on-grade	Unknown	Manual	Unknown	No	A	7	No	On	1	Occupied	Baseline	4	4	0.369953992	0.47672601	0.605208526	0.112352764	0
NEC	501 Ellis Street	Slab-on-Grade	1967	Manual	Unknown	No	B	9	Yes	Low [5]	1	Unoccupied	Baseline	7	7	1.6	3.357142857	5.8	1.800793476	3
NEC	501 Ellis Street	Slab-on-Grade	1967	Manual	Unknown	No	B	9	Yes	On	1	Occupied	Baseline	5	4	0.46	0.597	0.9	0.325990797	0
NEC	501 Ellis Street	Slab-on-Grade	1967	Manual	Unknown	No	B	9	Yes	On	1	Unoccupied	Baseline	13	10	0.19	1.203846154	11 (6)	2.975262701	1
Raytheon	350 Ellis St., Bldg. E	Slab-on-Grade/Gym	2001	Economizer	3.36	Yes	B	19.5	No	On	1	Occupied	Baseline	2	2	0.42	0.595	0.77	0.247487373	0
Raytheon	350 Ellis St., Bldg. E	Slab-on-Grade/Gym	2001	Economizer	3.36	Yes	B	19.5	No	On	1	Occupied	SC	2	0	ND	0.0975	ND	0.003535534	0
Raytheon	350 Ellis St., Bldg. E	Slab-on-Grade/Kitchen-Cafeteria	2001	Economizer	Unknown	Yes	B	19.5	No	Off-Weekend	1	Occupied	Baseline	6	4	0.22	0.335833333	0.71	0.244180603	0
Raytheon	350 Ellis St., Bldg. E	Slab-on-Grade/Kitchen-Cafeteria	2001	Economizer	Unknown	Yes	B	19.5	No	Off-Weekend	1	Occupied	SC	6	1	0.64	0.185833333	0.64	0.22251779	0
Raytheon	370 Ellis St., Bldg. A	Slab-on-Grade	2001	Economizer	1.15	Yes	C	18	Yes	On	1	Occupied	SC	5	5	0.32	0.416	0.49	0.080187281	0
Raytheon	370 Ellis St., Bldg. A	Slab-on-Grade	2001	Economizer	Unknown	Yes	C	18	Yes	Off-Weekend	1	Occupied	Baseline	8	8	0.58	1.54	3.7	1.096383666	1
Raytheon	370 Ellis St., Bldg. A	Slab-on-Grade	2001	Economizer	Unknown	Yes	C	20.5	Yes	Off-Weekend	1	Occupied	SC	8	7	0.22	0.815	2.6	0.91917665	0

TABLE 5-1
SUMMARY OF BUILDING CHARACTERISTICS, SOURCES, AND SAMPLING CONDITIONS FOR COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

		Building Characteristics					Subsurface Source Information			Sampling Conditions				TCE Results[1]						
PRP	Building	Construction Type	Year of Construction	HVAC Mode	Estimated Air Exchange Rate (1/hr)	Vapor Barrier Present?	TCE Groundwater Concentration[2]	Depth to Groundwater (ft bgs)	Soil Source Area?	Ventilation Status	Sampled Floor	Occupied/ Unoccupied	Remedial Conditions[3]	No. Samples	No. of Detects	Minimum Detected Concentration	Average Concentration	Maximum Detected Concentration	SD of Concentrations	No. Detects > 2.7 ug/m3
Raytheon	370 Ellis St., Bldg. B	Slab-on-Grade	2001	Economizer	1.17	Yes	C	20.5	Yes	On	1	Occupied	SC	4	0	ND	0.09	ND	0.006	0
Raytheon	370 Ellis St., Bldg. B	Slab-on-Grade	2001	Economizer	Unknown	Yes	C	20.5	Yes	Off-Weekend	1	Occupied	Baseline	8	8	0.55	1.355	2.7	0.659913414	0
Raytheon	370 Ellis St., Bldg. B	Slab-on-Grade	2001	Economizer	Unknown	Yes	C	20.5	Yes	Off-Weekend	1	Occupied	SC	8	8	0.2	2.705	8	2.833407842	4
Raytheon	380 Ellis St., Bldg. C	Slab-on-Grade	2001	Economizer	1.12	Yes	C	17.5	Yes	On	1	Occupied	SC	5	5	0.17	0.266	0.44	0.11058933	0
Raytheon	380 Ellis St., Bldg. C	Slab-on-Grade	2001	Economizer	Unknown	Yes	C	17.5	Yes	Off-Weekend	1	Occupied	Baseline	16	14	0.22	0.380625	0.97	0.211067722	0
Raytheon	380 Ellis St., Bldg. C	Slab-on-Grade	2001	Economizer	Unknown	Yes	C	17.5	Yes	Off-Weekend	1	Occupied	SC	16	13	0.23	0.6109375	2.8	0.694245919	1
Raytheon	380 Ellis St., Bldg. D	Slab-on-Grade	2001	Economizer	1.11	Yes	B	17.5	Yes	On	1	Occupied	Baseline	8	5	0.21	0.320625	0.84	0.271101424	0
Raytheon	380 Ellis St., Bldg. D	Slab-on-Grade	2001	Economizer	1.11	Yes	B	17.5	Yes	On	1	Occupied	SC	11	6	0.19	0.314090909	0.85	0.263218713	0
Raytheon	401 E. Middlefield Rd.	Slab-on-Grade	1995	Economizer	1.53	No	B	14.5	No	On	1	Unoccupied	Baseline	16	2	0.24	0.1409375	0.7	0.153505904	0
Raytheon	401 E. Middlefield Rd.	Slab-on-Grade	1995	Economizer	Unknown	No	B	14.5	No	Off	1	Unoccupied	Baseline	8	8	4.1	5.05	5.9	0.623354978	8
Raytheon	415 E. Middlefield Rd.	Slab-on-Grade	1968	Economizer	1.96	No	A	16	No	On	1	Unoccupied	Baseline	14	10	0.19	0.528928571	4.8 (4)	1.231907805	1
Raytheon	415 E. Middlefield Rd.	Slab-on-Grade	1968	Economizer	Unknown	No	A	16	No	Off	1	Unoccupied	Baseline	8	8	5.6	6.575	7.2	0.506387768	8
Regional	460 E. Middlefield Rd.	Slab-on-Grade	1960s	Manual	0.99	No	A	12	No	On	1	Unoccupied	Baseline	8	0	ND	0.111875		0.024919513	0
Regional	555 Ellis Street	Slab-on-Grade	Unknown	Manual	1.22	No	A	7	No	On	1	Unoccupied	Baseline	4	1	0.17	0.10375	0.17	0.044417527	0
Regional	645 National Ave.	Slab-on-Grade	1960s	Economizer	5.2	No	A	9.5	No	On	1	Unoccupied	Baseline	1	0	ND	0.095	ND	ND	0
Regional	645 National Ave.	Slab-on-Grade	1960s	None	Unknown	No	A	9.5	No	Natural	1	Occupied	Baseline	1	1	1.2	1.2	1.2	ND	0
Regional	645 National Ave.	Slab-on-Grade/Warehouse	1960s	None	Unknown	No	A	9.5	No	Natural	1	Occupied	Baseline	1	1	0.99	0.99	0.99	ND	0
Regional	645 National Ave.	Slab-on-Grade/Warehouse	1960s	None	Unknown	No	A	9.5	No	Natural	1	Unoccupied	Baseline	2	1	0.21	0.1525	0.21	0.08131728	0
Regional	660 National Ave.	Slab-on-Grade	1960s	Manual	1.26	No	B	10.5	No	On	1	Occupied	EV	5	0		0.091		0.002236068	0
Regional	660 National Ave.	Slab-on-Grade	1960s	Manual	Unknown	No	B	10.5	No	Low	1	Occupied	Baseline	10	10	0.45	2.56	9	2.784991522	3
Regional	670 National Ave.	Slab-on-Grade	1960s	Economizer/Manual	0.3	No	B	10.5	No	Low	1	Occupied	Baseline	3	3	2.2	4.5	5.9	2.00748599	2
Regional	670 National Ave.	Slab-on-Grade/warehouse	1960s	Economizer/Manual	0.3	No	B	10.5	No	Low	1	Occupied	Baseline	1	1	4.3	4.3	4.3	ND	1
SMI Holding LLC	455 E. Middlefield Rd.	Slab-on-Grade	2000	Economizer	Unknown	No	B	15	Yes	On	1	Occupied	Baseline	16	3	0.11	0.1878125	1.7 (6)	0.403658142	0
SMI Holding LLC	487 E. Middlefield Rd.	Slab-on-Grade	2000	Economizer	Unknown	No	A	13	Yes	On	1	Occupied	Baseline	8	1	0.11	0.083125	0.11	0.034634572	0
SMI Holding LLC	487 E. Middlefield Rd.	Slab-on-Grade	2000	Economizer	Unknown	No	A	13	Yes	On	1	Occupied	SC	8	1	0.22	0.099375	0.22	0.049021679	0
Vishay/SUMCO	425 National Ave.	Slab-on-Grade	2001	None	0.033	Yes	B	11.5	Yes	None	1	Unoccupied	Baseline	7	7	7.4	8	8.7	0.489897949	7
Vishay/SUMCO	425 National Ave.	Slab-on-Grade	2001	None	0.033	Yes	B	11.5	Yes	None	2	Unoccupied	Baseline	4	4	7.1	7.95	8.4	0.58022984	4

Notes:
1. All TCE values are presented in ug/m3. Mean and SD concentrations were calculated using one-half the limit of detection for nondetects.
2. A: <100 ppb; B: 100 ppb<TCE<1000 ppb; C: >1000 ppb.
3. SC: Sealed conduits; EV: Enhanced ventilation; SC+ EV: sealed conduits and enhanced ventilation; CS: controlled source.
4. HVAC Mode: Manual = package systems with set dampers (fixed openings); Economizer = unit with variable adjustment of outdoor makeup air and a minimal setting; None = none installed
5. 545 N. Whisman, 415 E. Middlefield, and 501 Ellis Street showed single maximum values above the interim action level of 2.7 µg/m3 that could not be confirmed during co-located, previous or subsequent samples. These three samples were removed from further analyses.
6. The samples collected in Fall 2003 were attributed to improper operation of the HVAC system in the vacant portion of the building where these samples were collected. Thus these samples were classified as being collected under "low" ventilation.
7. Maximum values greater than 2.7 ug/m3 detected at 389 Whisman and 455 E. Middlefield were not confirmed by subsequent sampling, but are carried through in further analyses.
8. Split samples are not included.
9. ND denotes nondetected.

TABLE 5-2
SUMMARY OF GENERAL CHARACTERISTICS OF SAMPLED COMMERCIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Slab-on-grade (no basements)	Post-1995 Year of Construction	Building Occupied During Sampling
313 Fairchild Drive	x	x	Yes
323 Fairchild Drive	x	x	Yes
369 N. Whisman Rd.	x	x	Yes
379 N. Whisman Rd.	x	x	Yes
389 N. Whisman Rd.	x	x	Yes
399 N. Whisman Rd.	x	x	Yes
401 National Ave	x		Yes
464 Ellis St.	x	x	no
466 Ellis St.	x	x	Yes
468 Ellis St.	x	x	Yes
515 N. Whisman Rd	x	x	no
545 N. Whisman Rd.	x	x	Yes
644 National Ave.			Both
355/365 E. Middlefield Rd.	x		Both
501 Ellis Street	x		Both
401 E. Middlefield Rd.	x	x	no
415 E. Middlefield Rd.	x		no
370 Ellis St., Bldg. A	x	x	Yes
370 Ellis St., Bldg. B	x	x	Yes
380 Ellis St., Bldg. C	x	x	Yes
380 Ellis St., Bldg. D	x	x	Yes
350 Ellis St., Bldg. E	x	x	Yes
455 E. Middlefield Rd.	x	x	Yes
487 E. Middlefield Rd.	x	x	Yes
425 National Ave.	x	x	no
Building 15	x		Yes
Building 16	x		Yes
Building 17			no
Building 20			no
N210			Yes
N211			Yes
N239	x		Yes
N243			Yes
N259	x		Yes
555 Ellis Street	x	Unknown	no
460 E Middlefield Rd	x		no
645 National Ave.	x		Both
660 National Ave.	x		Yes
670 National Ave.	x		Yes
number of buildings	**33**	**20**	**30**
number of samples	**846**	**355**	**861**

Notes:
Both = both occupied and unoccupied conditions sampled

TABLE 5-3
COMPARISON OF BUILDING CONSTRUCTION TYPE TO TCE INDOOR AIR CONCENTRATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Building Type	Year of Construction	Ventilation On/off	No. of TCE Samples	Average TCE Concentration (ug/m3)	Maximum Detected TCE Concentration (ug/m3)	No. of TCE Samples > 2.7 ug/m3	Percent of TCE Samples > 2.7 ug/m3
501 Ellis Street*	Slab-on-Grade	1967	On	17	0.45	1.70	0	0%
389 N. Whisman Rd.	Slab-on-Grade	1998	On	16	0.22	2.10	0	0%
455 E. Middlefield Rd.	Slab-on-Grade	2000	On	16	0.19	1.70	0	0%
369 N. Whisman Rd.	Slab-on-Grade	1998	On	16	0.33	1.60	0	0%
N239	Slab-on-grade	Unknown	On	6	0.69	0.99	0	0%
401 E. Middlefield Rd.	Slab-on-Grade	1995	On	16	0.14	0.70	0	0%
N259	Slab-on-grade	Unknown	On	4	0.48	0.61	0	0%
313 Fairchild Drive	Slab-on-Grade	1999	On	16	0.12	0.56	0	0%
323 Fairchild Drive	Slab-on-Grade/Kitchen-Cafeteria	1999	On	3	0.23	0.50	0	0%
N211	Slab-on-grade/Hangar	Unknown	On	12	0.06	0.42	0	0%
415 E. Middlefield Rd.*	Slab-on-Grade	1968	On	13	0.20	0.37	0	0%
464 Ellis St.	Slab-on-Grade	1998	On	16	0.11	0.27	0	0%
323 Fairchild Drive	Slab-on-Grade	1999	On	12	0.11	0.24	0	0%
468 Ellis St.	Slab-on-Grade	1998	On	4	0.13	0.22	0	0%
379 N. Whisman Rd.	Slab-on-Grade	1998	On	16	0.10	0.19	0	0%
515 N. Whisman Rd	Slab-on-Grade	2000	On	16	0.10	0.18	0	0%
555 Ellis Street	Slab-on-Grade	Unknown	On	4	0.10	0.17	0	0%
545 N. Whisman Rd.*	Slab-on-Grade	2000	On	15	0.09	ND	0	0%
460 E. Middlefield Rd.	Slab-on-Grade	1960s	On	8	0.11	ND	0	0%
645 National Ave.	Slab-on-Grade	1960s	On	1	0.10	ND	0	0%
399 N. Whisman Rd.	Slab-on-Grade	1998	On	16	0.09	ND	0	0%
466 Ellis St.	Slab-on-Grade	1998	On	16	0.09	ND	0	0%
468 Ellis St.	Slab-on-Grade/Kitchen-Cafeteria	1998	On	12	0.09	ND	0	0%
380 Ellis St., Bldg. D	Slab-on-Grade	2001	On	8	0.32	0.84	0	0%
350 Ellis St., Bldg. E	Slab-on-Grade/Gym	2001	On	2	0.60	0.77	0	0%
487 E. Middlefield Rd.	Slab-on-Grade	2000	On	8	0.08	0.11	0	0%
N243	Basement/Slab-on-grade	Unknown	On	51	0.20	0.46	0	0%
501 Ellis Street	Slab-on-Grade	1967	Low	7	**3.36**	**5.80**	3	43%
16	Slab-on-grade	Unknown	Natural	48	**5.63**	**15.11**	29	60%
425 National Ave.	Slab-on-Grade	2001	None	11	**7.98**	**8.70**	11	100%
415 E. Middlefield Rd.	Slab-on-Grade	1968	Off	8	**6.58**	**7.20**	8	100%
670 National Ave.	Slab-on-Grade	1960s	Low	3	**4.50**	**5.90**	2	67%
401 E. Middlefield Rd.	Slab-on-Grade	1995	Off	8	**5.05**	**5.90**	8	100%
670 National Ave.	Slab-on-Grade/warehouse	1960s	Low	1	**4.30**	**4.30**	1	100%
645 National Ave.	Slab-on-Grade	1960s	Natural	1	1.20	1.20	0	0%
645 National Ave.	Slab-on-Grade/Warehouse	1960s	Natural	3	0.43	0.99	0	0%
401 National Ave.	Slab-on-Grade	1963	Natural	10	**15.33**	**45.00**	5	50%
355/365 E. Middlefield Rd.	Slab-on-Grade	1960	Low	12	0.44	1.40	0	0%
370 Ellis St., Bldg. A	Slab-on-Grade	2001	Off-weekend	8	1.54	**3.70**	1	13%
370 Ellis St., Bldg. B	Slab-on-Grade	2001	Off-weekend	8	1.36	**2.70**	0	0%
380 Ellis St., Bldg. C	Slab-on-Grade	2001	Off-weekend	16	0.38	0.97	0	0%
350 Ellis St., Bldg. E	Slab-on-Grade/Kitchen-Cafeteria	2001	Off-weekend	6	0.34	0.71	0	0%
Building 15	Slab-on-Grade	Unknown	Low	267	1.52	**7.22**	27	10%
660 National Ave.	Slab-on-Grade	1960	Low	10	2.56	**9.00**	3	30%
N210	Pit/Slab-on-grade	Unknown	On	74	**11.39**	**110.44**	36	49%
20	Basement	Unknown	Off	49	**3.60**	**9.68**	30	61%
17	Basement	Unknown	Natural	281	0.82	**53.45**	2	1%
644 National Ave.	Basement	1963	Natural/Off	12	**150.33**	**490.00**	12	100%

Notes:
*A single sample that could not be confirmed was removed from this dataset. See note (5) in Table 5-1.
Average includes nondetects at half reporting limit.
Split samples are not included.
ND denotes not detected.
Green - Slab on grade buildings with ventilation on.
Yellow - Slab on grade buildings with ventilation low or off, or with natural ventilation.
Orange - Basement/elevator/pit construction

TABLE 5-4
COMPARISON OF HVAC SYSTEM MODE TO TCE INDOOR AIR CONCENTRATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Baseline Conditions?	Building Type	HVAC Mode (Economizer/ Manual)	Ventilation On/off	No. of TCE Samples	Average TCE Concentration (ug/m3)	Maximum Detected TCE Concentration (ug/m3)	No. of TCE Samples > 2.7 ug/m3	Percent of TCE Samples > 2.7 ug/m3
N210	Baseline	Pit/Slab-on-grade	Manual	On	74	**11.39**	**110.44**	36	49%
501 Ellis Street*	Baseline	Slab-on-Grade	Manual	On	17	0.45	1.70	0	0%
N239	Baseline	Slab-on-grade	Manual	On	6	0.69	0.99	0	0%
N259	Baseline	Slab-on-grade	Manual	On	4	0.48	0.61	0	0%
555 Ellis Street	Baseline	Slab-on-Grade	Manual	On	4	0.10	0.17	0	0%
460 E. Middlefield Rd.	Baseline	Slab-on-Grade	Manual	On	8	0.11	ND	0	0%
323 Fairchild Drive	Baseline	Slab-on-Grade/Kitchen-Cafeteria	Economizer/Manual	On	3	0.23	0.50	0	0%
N243	Baseline	Basement/Slab-on-grade	Economizer/manual	On	51	0.20	0.46	0	0%
323 Fairchild Drive	Baseline	Slab-on-Grade	Economizer/Manual	On	12	0.11	0.24	0	0%
545 N. Whisman Rd.*	Baseline	Slab-on-Grade	Economizer	On	15	0.09	ND	0	0%
399 N. Whisman Rd.	Baseline	Slab-on-Grade	Economizer	On	16	0.09	ND	0	0%
466 Ellis St.	Baseline	Slab-on-Grade	Economizer	On	16	0.09	ND	0	0%
468 Ellis St.	Baseline	Slab-on-Grade/Kitchen-Cafeteria	Economizer	On	12	0.09	ND	0	0%
645 National Ave.	Baseline	Slab-on-Grade	Economizer	On	1	0.10	ND	0	0%
415 E. Middlefield Rd.*	Baseline	Slab-on-Grade	Economizer	On	13	0.20	0.37	0	0%
389 N. Whisman Rd.	Baseline	Slab-on-Grade	Economizer	On	15	0.23	2.10	0	0%
455 E. Middlefield Rd.	Baseline	Slab-on-Grade	Economizer	On	16	0.19	1.70	0	0%
369 N. Whisman Rd.	Baseline	Slab-on-Grade	Economizer	On	16	0.33	1.60	0	0%
401 E. Middlefield Rd.	Baseline	Slab-on-Grade	Economizer	On	16	0.14	0.70	0	0%
313 Fairchild Drive	Baseline	Slab-on-Grade	Economizer	On	16	0.12	0.56	0	0%
N211	Baseline	Hangar	Economizer	On	12	0.06	0.42	0	0%
464 Ellis St.	Baseline	Slab-on-Grade	Economizer	On	16	0.11	0.27	0	0%
468 Ellis St.	Baseline	Slab-on-Grade	Economizer	On	4	0.13	0.22	0	0%
379 N. Whisman Rd.	Baseline	Slab-on-Grade	Economizer	On	16	0.10	0.19	0	0%
515 N. Whisman Rd	Baseline	Slab-on-Grade	Economizer	On	16	0.10	0.18	0	0%
355/365 E. Middlefield Rd.	Baseline	Slab-on-Grade	Manual	Low	12	0.44	1.40	0	0%
380 Ellis St., Bldg. D	Baseline	Slab-on-Grade	Economizer	On	8	0.32	0.84	0	0%
350 Ellis St., Bldg. E	Baseline	Slab-on-Grade/Gym	Economzer	On	2	0.60	0.77	0	0%
487 E. Middlefield Rd.	Baseline	Slab-on-Grade	Economizer	On	8	0.08	0.11	0	0%
Building 15	Baseline	Slab-on-Grade	Economizer	Low	267	1.52	**7.22**	27	10%
660 National Ave.	Baseline	Slab-on-Grade	Manual	Low	10	2.56	**9.00**	3	30%
670 National Avenue	Baseline	Slab-on-Grade	Economizer/Manual	Low	3	**4.50**	**5.90**	2	67%

Notes:

*A single sample that could not be confirmed was removed from this dataset. See note (5) in Table 5-1.

HVAC Mode: Manual = package systems with set dampers (fixed openings); Economizer = unit with variable adjustment of outdoor makeup air and a minimal setting

Average includes nondetects at half reporting limit.

Split samples are not included.

ND denotes not detected.

TABLE 5-5
COMPARISON OF TCE GROUNDWATER CONCENTRATIONSTO TCE INDOOR AIR CONCENTRATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Building Type	TCE Groundwater Concentration[2]	Ventilation On/off	No. of TCE Samples	Average TCE Concentration (ug/m3)	Maximum Detected TCE Concentration (ug/m3)	No. of TCE Samples > 2.7 ug/m3	Percent of TCE Samples > 2.7 ug/m3
20	Basement	A	Off	49	**3.60**	**9.68**	30	61%
415 E. Middlefield Rd.	Slab-on-Grade	A	Off	8	**6.58**	**7.20**	8	100%
17	Basement	A	Natural	281	0.82	**53.45**	2	1%
645 National Ave.	Slab-on-Grade	A	Natural	1	1.20	1.20	0	0%
645 National Ave.	Slab-on-Grade/Warehouse	A	Natural	3	0.43	0.99	0	0%
N259	Slab-on-grade	A	On	4	0.48	0.61	0	0%
313 Fairchild Drive	Slab-on-Grade	A	On	16	0.12	0.56	0	0%
323 Fairchild Drive	Slab-on-Grade/Kitchen-Cafeteria	A	On	3	0.23	0.50	0	0%
N211	Hangar	A	On	12	0.06	0.42	0	0%
415 E. Middlefield Rd.*	Slab-on-Grade	A	On	13	0.20	0.37	0	0%
464 Ellis St.	Slab-on-Grade	A	On	16	0.11	0.27	0	0%
323 Fairchild Drive	Slab-on-Grade	A	On	12	0.11	0.24	0	0%
555 Ellis Street	Slab-on-Grade	A	On	4	0.10	0.17	0	0%
460 E. Middlefield Rd.	Slab-on-Grade	A	On	8	0.11	ND	0	0%
645 National Ave.	Slab-on-Grade	A	On	1	0.10	ND	0	0%
487 E. Middlefield Rd.	Slab-on-Grade	A	On	8	0.08	0.11	0	0%
670 National Ave.	Slab-on-Grade	B	Low	3	**4.50**	**5.90**	2	67%
501 Ellis Street	Slab-on-Grade	B	Low	7	**3.36**	**5.80**	3	43%
670 National Ave.	Slab-on-Grade/warehouse	B	Low	1	**4.30**	**4.30**	1	100%
16	Slab-on-grade	B	Natural	48	**5.63**	**15.11**	29	60%
425 National Ave.	Slab-on-Grade	B	None	11	**7.98**	**8.70**	11	100%
401 E. Middlefield Rd.	Slab-on-Grade	B	Off	8	**5.05**	**5.90**	8	100%
466 Ellis St.	Slab-on-Grade	B	On	16	0.09	ND	0	0%
501 Ellis Street*	Slab-on-Grade	B	On	17	0.45	1.70	0	0%
389 N. Whisman Rd.	Slab-on-Grade	B	On	16	0.22	2.10	0	0%
455 E. Middlefield Rd.	Slab-on-Grade	B	On	16	0.19	1.70	0	0%
N239	Slab-on-grade	B	On	6	0.69	0.99	0	0%
401 E. Middlefield Rd.	Slab-on-Grade	B	On	16	0.14	0.70	0	0%
N243	Basement/Slab-on-grade	B	On	51	0.20	0.46	0	0%
468 Ellis St.	Slab-on-Grade	B	On	4	0.13	0.22	0	0%
515 N. Whisman Rd	Slab-on-Grade	B	On	16	0.10	0.18	0	0%
399 N. Whisman Rd.	Slab-on-Grade	B	On	16	0.09	ND	0	0%
545 N. Whisman Rd.*	Slab-on-Grade	B	On	15	0.09	ND	0	0%
468 Ellis St.	Slab-on-Grade/Kitchen-Cafeteria	B	On	12	0.09	ND	0	0%
355/365 E. Middlefield Rd.	Slab-on-Grade	B	Low	12	0.44	1.40	0	0%
380 Ellis St., Bldg. D	Slab-on-Grade	B	On	8	0.32	0.84	0	0%
350 Ellis St., Bldg. E	Slab-on-Grade/Gym	B	On	2	0.60	0.77	0	0%
350 Ellis St., Bldg. E	Slab-on-Grade/Kitchen-Cafeteria	B	Off-weekend	6	0.34	0.71	0	0%
Building 15	Slab-on-Grade	B	Low	267	1.52	**7.22**	27	10%
660 National Ave.	Slab-on-Grade	B	Low	10	2.56	**9.00**	3	30%
N210	Pit/Slab-on-grade	C	On	74	**11.39**	**110.44**	36	49%
369 N. Whisman Rd.	Slab-on-Grade	C	On	16	0.33	1.60	0	0%
379 N. Whisman Rd.	Slab-on-Grade	C	On	16	0.10	0.19	0	0%
401 National Ave.	Slab-on-Grade	C	Natural	10	**15.33**	**45.00**	5	50%
644 National Ave.	Basement	C	Off	12	**150.33**	**490.00**	12	100%
370 Ellis St., Bldg. A	Slab-on-Grade	C	Off-weekend	8	1.54	**3.70**	1	13%
370 Ellis St., Bldg. B	Slab-on-Grade	C	Off-weekend	8	1.36	**2.70**	0	0%
380 Ellis St., Bldg. C	Slab-on-Grade	C	Off-weekend	16	0.38	0.97	0	0%

Notes:
*A single sample that could not be confirmed was removed from this dataset. See note (5) in Table 5-1.
Average includes nondetects at half reporting limit.
Split samples are not included.
ND denotes not detected.

TABLE 5-6
COMPARISON OF SOIL SOURCE AREA DESIGNATION TO TCE INDOOR AIR CONCENTRATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Building Type	Soil Source Area Remediated?	Ventilation On/off	No. of TCE Samples	Average TCE Concentration (ug/m3)	Maximum Detected TCE Concentration (ug/m3)	No. of TCE Samples > 2.7 ug/m3	Percent of TCE Samples > 2.7 ug/m3
425 National Ave.	Slab-on-Grade	Yes	None	11	**7.98**	**8.70**	11	100%
501 Ellis Street	Slab-on-Grade	Yes	Low	7	**3.36**	**5.80**	3	43%
501 Ellis Street*	Slab-on-Grade	Yes	On	17	0.45	1.70	0	0%
455 E. Middlefield Rd.	Slab-on-Grade	Yes	On	16	0.19	1.70	0	0%
369 N. Whisman Rd.	Slab-on-Grade	Yes	On	16	0.33	1.60	0	0%
323 Fairchild Drive	Slab-on-Grade/Kitchen-Cafeteria	Yes	On	3	0.23	0.50	0	0%
323 Fairchild Drive	Slab-on-Grade	Yes	On	12	0.11	0.24	0	0%
379 N. Whisman Rd.	Slab-on-Grade	Yes	On	16	0.10	0.19	0	0%
515 N. Whisman Rd	Slab-on-Grade	Yes	On	16	0.10	0.18	0	0%
645 National Ave.	Slab-on-Grade	No	On	1	0.10	ND	0	0%
468 Ellis St.	Slab-on-Grade/Kitchen-Cafeteria	No	On	12	0.09	ND	0	0%
466 Ellis St.	Slab-on-Grade	No	On	16	0.09	ND	0	0%
460 E. Middlefield Rd.	Slab-on-Grade	No	On	8	0.11	ND	0	0%
399 N. Whisman Rd.	Slab-on-Grade	No	On	16	0.09	ND	0	0%
545 N. Whisman Rd.*	Slab-on-Grade	Yes	On	15	0.09	ND	0	0%
N210	Pit/Slab-on-grade	No	On	74	**11.39**	**110.44**	36	49%
16	Slab-on-grade	No	Natural	48	**5.63**	**15.11**	29	60%
20	Basement	No	Off	49	**3.60**	**9.68**	30	61%
415 E. Middlefield Rd.	Slab-on-Grade	No	Off	8	**6.58**	**7.20**	8	100%
670 National Ave.	Slab-on-Grade	No	Low	3	**4.50**	**5.90**	2	67%
401 E. Middlefield Rd.	Slab-on-Grade	No	Off	8	**5.05**	**5.90**	8	100%
670 National Ave.	Slab-on-Grade/warehouse	No	Low	1	**4.30**	**4.30**	1	100%
17	Basement	No	Natural	281	0.82	**53.45**	2	1%
389 N. Whisman Rd.	Slab-on-Grade	No	On	16	0.22	2.10	0	0%
645 National Ave.	Slab-on-Grade	No	Natural	1	1.20	1.20	0	0%
N239	Slab-on-grade	No	On	6	0.69	0.99	0	0%
645 National Ave.	Slab-on-Grade/Warehouse	No	Natural	3	0.43	0.99	0	0%
401 E. Middlefield Rd.	Slab-on-Grade	No	On	16	0.14	0.70	0	0%
N259	Slab-on-grade	No	On	4	0.48	0.61	0	0%
313 Fairchild Drive	Slab-on-Grade	No	On	16	0.12	0.56	0	0%
N243	Basement/Slab-on-grade	No	On	51	0.20	0.46	0	0%
N211	Hangar	No	On	12	0.06	0.42	0	0%
415 E. Middlefield Rd.*	Slab-on-Grade	No	On	13	0.20	0.37	0	0%
464 Ellis St.	Slab-on-Grade	No	On	16	0.11	0.27	0	0%
468 Ellis St.	Slab-on-Grade	No	On	4	0.13	0.22	0	0%
555 Ellis Street	Slab-on-Grade	No	On	4	0.10	0.17	0	0%
401 National Ave.	Slab-on-Grade	Yes	Natural	10	**15.33**	**45.00**	5	50%
644 National Ave.	Basement	Yes	Off	12	**150.33**	**490.00**	12	100%
355/365 E. Middlefield Rd.	Slab-on-Grade	Yes	Low	12	0.44	1.40	0	0%

TABLE 5-6
COMPARISON OF SOIL SOURCE AREA DESIGNATION TO TCE INDOOR AIR CONCENTRATIONS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Building Type	Soil Source Area Remediated?	Ventilation On/off	No. of TCE Samples	Average TCE Concentration (ug/m3)	Maximum Detected TCE Concentration (ug/m3)	No. of TCE Samples > 2.7 ug/m3	Percent of TCE Samples > 2.7 ug/m3
370 Ellis St., Bldg. A	Slab-on-Grade	Yes	Off-weekend	8	1.54	**3.70**	1	13%
370 Ellis St., Bldg. B	Slab-on-Grade	Yes	Off-weekend	8	1.36	**2.70**	0	0%
380 Ellis St., Bldg. C	Slab-on-Grade	Yes	Off-weekend	16	0.38	0.97	0	0%
380 Ellis St., Bldg. D	Slab-on-Grade	Yes	On	8	0.32	0.84	0	0%
350 Ellis St., Bldg. E	Slab-on-Grade/Gym	No	On	2	0.60	0.77	0	0%
350 Ellis St., Bldg. E	Slab-on-Grade/Kitchen-Cafeteria	No	Off-weekend	6	0.34	0.71	0	0%
487 E. Middlefield Rd.	Slab-on-Grade	Yes	On	8	0.08	0.11	0	0%
Building 15	Slab-on-Grade	No	Low	267	1.52	**7.22**	27	10%
660 National Ave.	Slab-on-Grade	No	Low	10	2.56	**9.00**	3	30%

Notes:
*A single sample that could not be confirmed was removed from this dataset. See note (5) in Table 5-1.
Average includes nondetects at half reporting limit.
Split samples are not included.
ND denotes not detected.

TABLE 5-7
COMPARISON OF CONSTRUCTION TYPE TO TCE INDOOR AIR CONCENTRATIONS
FOR COMMERCIAL BUILDINGS WITH INTERIM MITIGATION MEASURES
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Building	Baseline Conditions*	Building Type	Year of Construction	Ventilation On/off	No. of TCE Samples	Average TCE Concentration (ug/m3)	Maximum Detected TCE Concentration (ug/m3)	No. of TCE Samples > 2.7 ug/m3	Percent of TCE Samples > 2.7 ug/m3
15	Baseline	Slab-on-grade	Unknown	Low	267	1.52	**7.22**	27	10%
15	EV	Slab-on-grade	Unknown	On	44	0.34	0.61	0	0%
350 Ellis St., Bldg. E	Baseline	Slab-on-Grade/Kitchen-Cafeteria	2001	Off-Weekend	6	0.34	0.71	0	0%
350 Ellis St., Bldg. E	SC	Slab-on-Grade/Kitchen-Cafeteria	2001	Off-Weekend	6	0.19	0.64	0	0%
350 Ellis St., Bldg. E	Baseline	Slab-on-Grade/Gym	2001	On	2	0.60	0.77	0	0%
350 Ellis St., Bldg. E	SC	Slab-on-Grade/Gym	2001	On	2	0.10	ND	0	0%
355/365 E. Middlefield Rd.	Baseline	Slab-on-Grade	1960s	Low	12	0.44	1.40	0	0%
355/365 E. Middlefield Rd.	SC+EV	Slab-on-Grade	1960s	On	10	0.15	0.30	0	0%
370 Ellis St., Bldg. A	Baseline	Slab-on-Grade	2001	Off-Weekend	8	1.54	**3.70**	1	13%
370 Ellis St., Bldg. A	SC	Slab-on-Grade	2001	Off-Weekend	8	0.82	2.60	0	0%
370 Ellis St., Bldg. A	SC	Slab-on-Grade	2001	On	5	0.42	0.49	0	0%
370 Ellis St., Bldg. B	Baseline	Slab-on-Grade	2001	Off-Weekend	8	1.36	2.70	0	0%
370 Ellis St., Bldg. B	SC	Slab-on-Grade	2001	Off-Weekend	8	**2.71**	**8.00**	4	50%
370 Ellis St., Bldg. B	SC	Slab-on-Grade	2001	On	4	0.09	ND	0	0%
380 Ellis St., Bldg. C	Baseline	Slab-on-Grade	2001	Off-Weekend	16	0.38	0.97	0	0%
380 Ellis St., Bldg. C	SC	Slab-on-Grade	2001	Off-Weekend	16	0.61	**2.80**	1	6%
380 Ellis St., Bldg. C	SC	Slab-on-Grade	2001	On	5	0.27	0.44	0	0%
380 Ellis St., Bldg. D	Baseline	Slab-on-Grade	2001	On	8	0.32	0.84	0	0%
380 Ellis St., Bldg. D	SC	Slab-on-Grade	2001	On	11	0.31	0.85	0	0%
401 National Ave	Baseline	Slab-on-Grade	1963	Natural	10	**15.33**	**45.00**	5	50%
401 National Ave	SC+EV	Slab-on-Grade	1963	Low	7	0.92	2.00	0	0%
487 E. Middlefield Rd.	Baseline	Slab-on-Grade	2000	On	8	0.08	0.11	0	0%
487 E. Middlefield Rd.	SC	Slab-on-Grade	2000	On	8	0.10	0.22	0	0%
660 National Ave.	Baseline	Slab-on-Grade	1960s	Low	10	2.56	**9.00**	3	30%
660 National Ave.	EV	Slab-on-Grade	1960s	On	5	0.09	ND	0	0%
644 National Ave. (1st Fl)	Baseline	Basement	1963	Natural	7	**52.00**	**94.00**	7	100%
644 National Ave. (1st Fl)	CS	Basement	1963	Natural	6	0.23	0.56	0	0%
644 National Ave. (Basement)	Baseline	Basement	1963	Off	5	**288.00**	**490.00**	5	100%
644 National Ave. (Basement)	SC+EV	Basement	1963	On	8	**28.63**	**43.00**	8	100%

Notes:
* SC: Sealed conduits; EV: Enhanced ventilation; SC+ EV: sealed conduits and enhanced ventilation; CS: controlled indoor source.
Average includes nondetects at half reporting limit.
Split samples are not included.
ND denotes not detected.

TABLE 5-8
SUMMARY OF BUILDING CHARACTERISTICS AND SAMPLING CONDITIONS FOR RESIDENTIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

PRP	Building	Building Type	Approximate Age of Building	Vapor Barrier Present?	TCE Groundwater Concentration(1)	Depth to Groundwater (ft bgs)	Sampled Floor	Occupied/ Unoccupied During Sampling	No. Samples	No. of Detects	Minimum Detected Concentration	Average Concentration	Maximum Detected Concentration	No. Detects > 1 ug/m3
Army	Bldg.10 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.048	0.048	0.048	0
Army	Bldg.11 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.065	0.065	0.065	0
Army	Bldg.12 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.071	0.071	0.071	0
Army	Bldg.13 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.068	0.068	0.068	0
Army	Bldg.14 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.035	0.035	0.035	0
Army	Bldg.15 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.069	0.069	0.069	0
Army	Bldg.16 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.069	0.069	0.069	0
Army	Bldg.17 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.045	0.045	0.045	0
Army	Bldg.18 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.053	0.053	0.053	0
Army	Bldg.19 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.047	0.047	0.047	0
Army	Bldg.20 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.053	0.053	0.053	0
Army	Bldg.21 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.065	0.065	0.065	0
Army	Bldg.22 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	2	2	0.05	0.51	0.97	0
Army	Bldg.23 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.12	0.12	0.12	0
Army	Bldg.24 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.16	0.16	0.16	0
Army	Bldg.25 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.18	0.18	0.18	0
Army	Bldg.26 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.065	0.065	0.065	0
Army	Bldg.27 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.24	0.24	0.24	0
Army	Bldg.28 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.43	0.43	0.43	0
Army	Bldg.29 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.13	0.13	0.13	0
Army	Bldg.30- NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.11	0.11	0.11	0
Army	Bldg.31 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.1	0.1	0.1	0
Army	Bldg.32 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.24	0.24	0.24	0
Army	Bldg.33 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.09	0.09	0.09	0
Army	Bldg.34 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.12	0.12	0.12	0
Army	Bldg.35 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.14	0.14	0.14	0

TABLE 5-8
SUMMARY OF BUILDING CHARACTERISTICS AND SAMPLING CONDITIONS FOR RESIDENTIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

PRP	Building	Building Type	Approximate Age of Building	Vapor Barrier Present?	TCE Groundwater Concentration[1]	Depth to Groundwater (ft bgs)	Sampled Floor	Occupied/ Unoccupied During Sampling	No. Samples	No. of Detects	Minimum Detected Concentration	Average Concentration	Maximum Detected Concentration	No. Detects > 1 ug/m3
Army	Bldg.36 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.096	0.096	0.096	0
Army	Bldg.37 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.097	0.097	0.097	0
Army	Bldg.38 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.24	0.24	0.24	0
Army	Bldg.39 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.12	0.12	0.12	0
Army	Bldg.42 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.2	0.2	0.2	0
Army	Bldg.43 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.16	0.16	0.16	0
Army	Bldg.45 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.26	0.26	0.26	0
Army	Bldg.46 - NewConst.	Slab-on-Grade	2006	Yes	A	6.5	1	Unoccupied	1	1	0.13	0.13	0.13	0
Army	Bldg.A - Historical	Basement	2006	No	A	0.0	1	Unoccupied	1	1	0.055	0.055	0.055	0
Army	Bldg.A - Historical	Basement	2006	No	A	0.0	Basement	Unoccupied	1	1	0.062	0.062	0.062	0
Army	Bldg.B - Historical	Basement	2006	No	A	6.5	1	Unoccupied	1	1	0.057	0.057	0.057	0
Army	Bldg.B - Historical	Basement	2006	No	A	6.5	Basement	Unoccupied	1	1	0.075	0.075	0.075	0
Army	Bldg.C - Historical	Basement	2006	No	A	0.0	Basement	Unoccupied	1	1	0.11	0.11	0.11	0
Army	Bldg.D - Historical	Basement	2006	No	A	0.0	1	Unoccupied	1	1	0.064	0.064	0.064	0
Army	Bldg.D - Historical	Basement	2006	No	A	0.0	Basement	Unoccupied	1	1	0.047	0.047	0.047	0
Army	619F	Unknown	Unknown	No	A	6.5	1	Unoccupied	5	2	ND	0.2	0.24	0
Army	620E	Unknown	Unknown	No	A	6.5	1	Unoccupied	2	2	3.2	3.7	4.2	2
Army	620F	Unknown	Unknown	No	A	6.5	1	Unoccupied	6	6	0.88	2.7	4.2	6
Regional	Residence 1	Crawlspace	Unknown	No	A	10.5	1	Occupied	5	1	0.18	0.148	0.18	0
Regional	Residence 10	Slab-on-Grade	Unknown	Unknown	A	14.0	1	Occupied	2	0	ND	0.138	ND	0
Regional	Residence 11	Crawlspace	Unknown	No	A	14.5	1	Occupied	10	10	0.49	0.757	1.4	0
Regional	Residence 12	Basement/Crawlspace	Unknown	No	A	NA	1	Occupied	4	4	0.16	0.168	0.18	0
Regional	Residence 13	Slab-on-Grade	Unknown	Unknown	A	22.0	1	Occupied	3	2	0.2	3.445	10[2]	1
Regional	Residence 14	Basement/Crawlspace	Unknown	No	A	22.0	1	Occupied	4	0	ND	0.135	ND	0
Regional	Residence 15	Crawlspace	Unknown	No	A	14.5	1	Occupied	4	2	0.59	0.39	0.7	0
Regional	Residence 16	Crawlspace	Unknown	No	A	14.5	1	Occupied	7	4	0.14	0.301	0.7	0

TABLE 5-8
SUMMARY OF BUILDING CHARACTERISTICS AND SAMPLING CONDITIONS FOR RESIDENTIAL BUILDINGS
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

PRP	Building	Building Type	Approximate Age of Building	Vapor Barrier Present?	TCE Groundwater Concentration(1)	Depth to Groundwater (ft bgs)	Sampled Floor	Occupied/ Unoccupied During Sampling	No. Samples	No. of Detects	Minimum Detected Concentration	Average Concentration	Maximum Detected Concentration	No. Detects > 1 ug/m3
Regional	Residence 17	Crawlspace	Unknown	No	A	14.5	1	Occupied	1	0	ND	0.14	ND	0
Regional	Residence 2	Crawlspace	Unknown	No	A	10.5	1	Occupied	5	0	ND	0.07	ND	0
Regional	Residence 3	Slab-on-Grade	Unknown	Unknown	A	10.5	1	Occupied	3	0	ND	0.092	ND	0
Regional	Residence 4	Basement/Crawlspace	Unknown	No	A	7.5	1	Occupied	15	12	0.19	0.397	1 (3)	0
Regional	Residence 5	Crawlspace	Unknown	No	A	10.5	1	Occupied	2	0	ND	0.103	ND	0
Regional	Residence 6	Crawlspace	Unknown	No	A	10.5	1	Occupied	3	1	0.24	0.17	0.24	0
Regional	Residence 7	Crawlspace	Unknown	No	A	10.5	1	Occupied	2	0	ND	0.135	ND	0
Regional	Residence 8	Crawlspace	Unknown	No	A	14.0	1	Occupied	9	9	1.3	5.444	11 (4)	9
Regional	Residence 9	Slab-on-Grade	Unknown	Unknown	A	14.0	1	Occupied	2	2	0.18	0.19	0.2	0

Notes:
1. A: <50 ppb; B: 50 ppb<TCE<500 ppb; C: >500 ppb.
2. The maximum value of 10 ug/m3 could not be confirmed.
3. This residence has an earthen basement and was subsequently ventilated.
4. Follow-up sub-slab soil gas and indoor air data indicated elevated TCE concentrations from indoor source.
5. Residential samples do not include 619B, 620E, 620F, that were demolished.
6. Average concentration uses nondetects at half reporting limit.
7. Split Samples are not included
8. ND denotes not detected.

TABLE 5-9
SUMMARY OF PERCENTAGE REDUCTION IN TCE CONCENTRATIONS AFTER IMPLEMENTATION OF INTERIM MITIGATION MEASURES
MEW STUDY AREA, MOUNTAIN VIEW AND MOFFETT FIELD, CA

Mitigation Method	Building	Sampled Floor	Pre-Mitigation			Post-Mitigation			Percent Change		Notes
			Number of Samples[1]	Average TCE (ug/m3)	Maximum TCE (ug/m3)	Number of Samples[1]	Average TCE (ug/m3)	Maximum TCE (ug/m3)	Average TCE	Maximum TCE	
Basement Exhaust System	644 National Ave.	1&2	7	52.00	94.00	6	0.27	0.59	**-99%**	**-99%**	
Enhancing Ventilation	660 National	1	13	2.56	9.00	5	0.18	0.19	**-93%**	**-98%**	Note 2
	NASA 15	1	146	1.53	4.89	41	0.35	0.61	**-77%**	**-88%**	
	355/365 E. Middlefield	1	12	0.44	1.40	10	0.18	0.3	**-59%**	**-79%**	
Sealing conduits	370 Ellis St., Bldg. A - Path 1	NA	2	160.00	170.00	3	10.47	13	**-93%**	**-92%**	
	380 Ellis St., Bldg. B - Path 1	NA	2	1.23	1.60	4	2.06	5.9	68%	269%	
	380 Ellis St., Bldg. C - Path 1	NA	2	255.00	310.00	4	5.33	6.5	**-98%**	**-98%**	Note 3
	380 Ellis St., Bldg. C - Path 2	NA	2	0.19	0.20	4	0.45	0.79	137%	295%	Note 4
	380 Ellis St., Bldg. D - Path 1	NA	2	3.70	5.10	4	1.38	2	**-63%**	**-61%**	
	350 Ellis St., Bldg. E - Path 1	NA	2	36.00	48.00	4	0.25	0.44	**-99%**	**-99%**	
	487 E. Middlefield Rd.	NA	2	1.02	1.10	2	1.15	1.2	13%	9%	Note 4
HVAC System on/off	401 E. Middlefield	1	9	5.05	7.60	16	0.22	0.7	**-96%**	**-91%**	
	415 E. Middlefield	1	6	6.54	7.60	14	0.56	4.8	**-91%**	**-37%**	Note 5
Air Purification	370 Ellis St., Bldg. A - Path 1	NA	3	10.47	13.00	10	1.93	8.4	**-82%**	**-35%**	
	371 Ellis St., Bldg. A - Path 2	NA	4	3.95	5.80	3	2.50	3	**-37%**	**-48%**	
	380 Ellis St., Bldg. B - Path 2	NA	4	7.01	18.00	3	0.31	0.59	**-96%**	**-97%**	
	380 Ellis St., Bldg. C - Path 1	NA	4	5.33	6.50	3	0.45	0.79	**-92%**	**-88%**	

Notes:

1. Duplicate samples are not included in the number of samples.
2. Increasing Outdoor Makeup Air
3. In the post-mitigation sampling, only one sampled exceeded the TCE interim action level
4. Conduits were sealed is a precautionary measure. All samples showed TCE below the interim action level.
5. The maximum on 4.8 ug/m3 when the ventilation system is on could not be confirmed. An EPA duplicate of that sample showed TCE at 0.49 ug/m3.