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April 15, 2014

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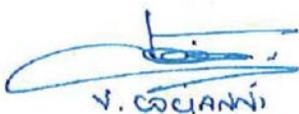
Subject: **2013 Annual Vapor Intrusion Progress Report – Former Fairchild Properties**  
Middlefield-Ellis-Whisman (“MEW”) Area  
Mountain View, California

Dear Ms. Lee:

Please find enclosed the 2013 Annual Vapor Intrusion Progress Report for the former Fairchild properties located within the Middlefield-Ellis-Whisman (MEW) Vapor Intrusion Study Area. This report documents work activities performed between 1 January and 31 December 2013 and was prepared pursuant to the United States Environmental Protection Agency's 16 September 2011 Statement of Work, Section 2.6.2.

If you have any questions regarding this 2013 Annual Vapor Intrusion Progress Report, please feel free to call me.

Very truly yours,



V. COCIANNI

Virgilio Cocianni  
Remediation Manager

Attachment

CC: MEW Distribution List

*Prepared for*

**Schlumberger Technology Corporation**

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Sugar Land, Texas 77478

# **2013 ANNUAL VAPOR INTRUSION PROGRESS REPORT**

**FORMER FAIRCHILD PROPERTIES  
MIDDLEFIELD-ELLIS-WHISMAN (MEW) AREA  
MOUNTAIN VIEW, CALIFORNIA**

*Prepared by*

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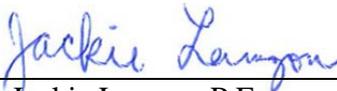
Project Number: WR1133B

April 2014

**2013 Annual Vapor Intrusion Progress Report**  
**Former Fairchild Properties**  
**Middlefield-Ellis-Whisman (MEW) Area**  
**Mountain View, California**

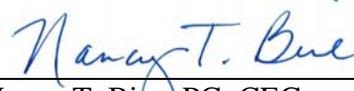
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Project Number: WR1133B  
April 2014

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## LIST OF ACRONYMS AND ABBREVIATIONS

CAB	Community Advisory Board
COCs	contaminants of concern
DAP	DAP Watertight Concrete Filler and Sealant
EPA	United States Environmental Protection Agency
Fairchild	Fairchild Semiconductor Corporation
Geosyntec	Geosyntec Consultants, Inc.
H&A	Haley & Aldrich, Inc.
HVAC	heating, ventilation, and air conditioning
MEW	Middlefield-Ellis-Whisman
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
OM&M	operations, maintenance, and monitoring
PID	photoionization detector
ppb	parts per billion
PVC	polyvinyl chloride
Report	Annual Progress Report
Revised Tiering Work Plan	Revised Site-Wide Vapor Intrusion Sampling and Analysis Work Plan for Response Action Tiering, MEW Area and Moffett Field, California
ROD Amendment	Record of Decision Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area, Mountain View and Moffett Field, California
Sampling and Analysis Plan	Indoor Air Sampling and Analysis Work Plan for Existing, Unsampled Commercial Buildings
SIM	selected ion mode
SOW	Statement of Work
SSD	sub-slab depressurization
TCE	trichloroethene
VI	vapor intrusion

## 1. INTRODUCTION

This Annual Progress Report (Report) summarizes activities performed in 2013 related to assessing and addressing the vapor intrusion (VI) pathway for the buildings located on former Fairchild Semiconductor Corporation (Fairchild) properties situated within the Middlefield-Ellis-Whisman (MEW) Superfund Area and parts of Moffett Field (collectively referred to as the VI Study Area), in Mountain View, California (Figure 1). Geosyntec Consultants, Inc. (Geosyntec) prepared this report on behalf of Schlumberger Technology Corporation. As discussed within this Report, all VI work was performed in general accordance with Section 2.6.2 of the United States Environmental Protection Agency's (EPA's) 16 September 2011 Statement of Work for the VI pathway at MEW (VI SOW; EPA, 2011).

### 1.1 Vapor Intrusion Study Area

The extent of the VI Study Area as it relates to the former Fairchild facilities, is presented in Figure 2 and is in accordance with the maps posted by the EPA on their MEW-specific website ([www.epa.gov/region9/mew](http://www.epa.gov/region9/mew)). Information regarding the background of the VI Study Area is provided in the Final Supplemental Remedial Investigation Report for Vapor Intrusion Pathway (Haley & Aldrich, Inc. [H&A], 2009).

As depicted in Figure 2 and summarized below, there are 13 buildings located on former Fairchild properties within the VI Study Area. All of the former Fairchild properties in the VI Study Area are located within the MEW Superfund Area south of U.S. Highway 101. As listed below, some of these buildings are currently occupied and have been sampled prior to 2013, while others are being remodeled or have been demolished.

- 369 North Whisman Road – occupied, sampled in 2013.
- 379 North Whisman Road – occupied, sampled in 2013.
- 389 North Whisman Road – occupied, last sampled in 2012.
- 399 North Whisman Road – occupied, last sampled in 2012.
- 515 North Whisman Road – occupied, last sampled in 2009.
- 545 North Whisman Road – occupied, last sampled in 2009.

- 401 National Avenue – unoccupied with plans for redevelopment, last sampled in 2004.
- 644 National Avenue – The building on this property was demolished and the land is now used as a parking lot for the foreseeable future464 Ellis Street – occupied, sampled in 2013.
- 466 Ellis Street – occupied, sampled in 2013.
- 468 Ellis Street – occupied, last sampled in 2012.
- 313 Fairchild Drive – occupied, last sampled in 2012.
- 323 Fairchild Drive – occupied, last sampled in 2012.

Details regarding buildings sampled prior to 2013 are provided in the Final Supplemental Remedial Investigation Report for Vapor Intrusion Pathway (H&A, 2009) and the 2012 Annual Vapor Intrusion Progress Report (Geosyntec, 2013a). Details regarding the 2013 sampling activities performed in the buildings located at 369 and 379 North Whisman Road, and 464 and 466 Ellis Street, are provided in the following documents and summarized in this Report:

- Indoor Air Sampling Report, Former Fairchild Buildings – Google Quad, 369, 379, 389 and 399 North Whisman Road and 468 Ellis Street (Geosyntec, 2013b).
- Indoor Air Sampling Report, Former Fairchild Property, 466 Ellis Street, Mountain View, California. (Geosyntec, 2013c).
- Indoor Air Sampling Report, Former Fairchild Property, 464 Ellis Street, Mountain View, California. (Geosyntec, 2013d).

## **1.2 Purpose and Objectives**

The purpose of this Report is to summarize the VI investigation, remedial design, and construction activities performed at the buildings located on the former Fairchild properties in 2013. As discussed in the following sections, vapor intrusion investigation activities were performed in the buildings located at 369 and 379 North Whisman Road and 464 and 466 Ellis Street in 2013. Remedial design and construction activities, including completion of design and initiation of construction of sub-slab depressurization (SSD) systems, were performed in the buildings located at 369, 379, 389, and 399 North Whisman Road in 2013.

In addition, this Report presents a summary of the work activities proposed for 2014.

### 1.3 Report Organization

The VI SOW specifies several items to be included in the Annual Progress Report. These items and where they are addressed in this Report are included in the table below:

TASK ITEM	LOCATION IN ANNUAL PROGRESS REPORT
(a) Description of the VI work and activities taken to comply with the VI SOW during the reporting period, including a description of activities conducted during the reporting period.	Section 2
(b) Work activities include, but are not limited to: fieldwork, sampling, data collection, reporting, community involvement and meetings, laboratory results, interim VI mitigation measures, and remedial design/remedial action activities.	Section 2
(c) Summary of all results of sampling and monitoring data by building or property address, including sampling location maps and figures, and data summary tables.	Section 2, Table 2, Figures 3 through 6
(d) Re-assessment of the extent of the VI Study Area using the most recent shallow A zone groundwater concentration data and other lines of evidence, as appropriate. Provide updated shallow A aquifer zone trichloroethene (TCE) isoconcentration maps.	Section 1.1, Figure 2
(e) Interpretation or explanation of the data collected during the reporting period, including summary table update of response action tiering status of all buildings/properties.	Section 2, Table 3
(f) Description of VI Work planned for the next reporting period, with updated schedules that show overall VI Work completed, VI Work planned for the next reporting period, and the overall project schedule for VI Work task completion.	Section 4, Table 3
(g) Description of issues/problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated delays.	Section 3
(h) Recommendations, follow-up actions, and proposed schedules for work to address problems encountered.	Section 5

References are listed in Section 6.

## 2. VAPOR INTRUSION ACTIVITIES

The potential for vapor intrusion was investigated in four buildings located on former Fairchild properties in 2013. Two of these buildings (369 and 379 North Whisman Road) were occupied at the time of sampling, and two of these buildings (464 and 466 Ellis Street) were sampled prior to occupancy. In anticipation of approval of the Revised Site-Wide Vapor Intrusion Sampling and Analysis Work Plan for Response Action Tiering, Middlefield-Ellis-Whisman Area and Moffett Field, California, ([Revised Tiering Work Plan]; H&A, 2013), which was submitted to the EPA on 22 March 2013, these buildings were investigated to assess the appropriate response action tier. Following approval of the Revised Tiering Work Plan by EPA, response action tiers will be designated for former Fairchild properties in accordance with the tiering system defined in Tables 6A, 6B, and 7 of the Record of Decision Amendment for the Vapor Intrusion Pathway, MEW Superfund Study Area, Mountain View and Moffett Field, California, (ROD Amendment, EPA, 2010).

All work was performed in accordance with the Indoor Air Sampling and Analysis Work Plan for Existing, Unsampled Commercial Buildings (Sampling and Analysis Plan; H&A, 2011) approved by the EPA on 1 July 2011. The investigation work included development of building-specific sampling work plans, building walk-throughs, indoor and outdoor air sampling and analysis, building assessments and sealing of conduits as appropriate, and reporting.

In addition, in 2013, VI remedial design and construction activities were performed in the buildings located at the 369, 379, 389, and 399 North Whisman Road properties. The buildings located at 369 and 379 North Whisman Road are anticipated to receive a Tier 2 designation based on results of the vapor intrusion evaluation activities. Therefore, SSD systems are being retrofitted in these buildings in accordance with the VI SOW. The buildings located at 389 and 399 North Whisman Road are anticipated to receive a Tier 3A designation based on results of the vapor intrusion evaluation activities and requirements of the VI SOW; therefore, engineering controls are not required for these buildings. However, although an engineered remedy is not required by the ROD Amendment in buildings located at 389 and 399 North Whisman Road, the property owner elected to install SSD systems in all four buildings. All four of these buildings were occupied when construction was initiated.

All SSD remedial design and construction work was performed in accordance with the VI SOW, including development of building-specific SSD system designs, building-

specific SSD system Operations, Maintenance and Monitoring (OM&M) Plans, and initiation of construction of SSD systems.

## 2.1 Investigation Activities

In 2013, VI Investigation activities were performed at 369 and 379 North Whisman Road and at 464 and 466 Ellis Street. A summary of these work activities is provided in Table 1 and in the following sections.

**Table 1: Status –Buildings Sampled in 2013**

Building Address	Access Received	Walk-Through Performed with EPA	Work Plan Submitted	EPA's Approval of Work Plan	Work Plan (Sampling) Implemented in 2013
<b>North Whisman Road</b>					
369 North Whisman Road	10/29/2012	11/7/2012	11/19/2012	11/19/2012	1/1/2013 and 1/22/2013
379 North Whisman Road	10/29/2012	11/7/2012	11/19/2012	11/19/2012	1/1/2013 and 1/22/2013
464 Ellis Street	2/22/2013	8/26/2013	8/30/2013	Verbal 8/26/2013; Written 8/30/2013	8/27/2013 and 8/30/2013
466 Ellis Street	2/22/2013	5/1/2013	4/26/2013	5/1/2013	5/3/2013, 5/6/2013, 5/29/2013, and 5/31/2013

### 2.1.1 369 and 379 North Whisman Road

The investigation work performed in 2013 at 369 and 379 North Whisman Road included indoor and outdoor air sampling and analysis, and building assessment and sealing activities. Building walk-throughs were previously conducted in 2012 by H&A and an EPA representative (Table 1).

#### 2.1.1.1 Air Sampling Activities

As described in the building-specific Indoor Air Sampling Report (Geosyntec, 2013b), two rounds of indoor air sampling were performed in 2013:

- The first round was performed on 29 December 2012 (heating, ventilation, and air conditioning [HVAC]-on conditions) and 1 January 2013 (HVAC-off conditions), following completion of conduit sealing activities.
- The second round was performed on 22 January 2013 (HVAC-on conditions) to verify the effectiveness of additional conduit sealing and HVAC operational adjustments.

Outdoor air samples were also collected on each day of indoor air sampling for comparison purposes.

All indoor and outdoor air samples were collected over an eight-hour time period in selected ion mode (SIM) individually certified 6-Liter SUMMA® canisters and analyzed for site-specific contaminants of concern (COCs). The analysis was conducted using EPA Method TO-15 SIM by a laboratory certified by the National Environmental Laboratory Accreditation Conference.

#### ***2.1.1.2 Sampling Results and Supplemental Building Assessment***

Results from the first round of HVAC-on and HVAC-off sampling indicated the presence of TCE at concentrations above the site-specific EPA commercial indoor air cleanup level of 5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).<sup>1</sup> No other COCs were detected above their respective site-specific EPA commercial indoor air clean-up levels.

As a result, an additional building assessment was performed on 12 January 2013. A photoionization detector (PID, ppbRAE), which measures total volatile organic compounds (VOCs) in the parts per billion (ppb) range, was used to screen observable potential conduits to the subsurface, including polyvinyl chloride (PVC) conduit risers and conduits located in an exterior subsurface utility vault between 369 and 379 North Whisman Road. While the PID is not capable of measuring TCE specifically, it can be used as a screening tool to determine if VOCs are present in an area. Based on the results of the PID screening, potential conduits were identified and sealed with a polyurethane foam sealant during this building assessment.

An inspection of the HVAC system was then performed on 14 January 2013 to evaluate operational status and document the 369 and 379 North Whisman Road building

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<sup>1</sup> The EPA established commercial indoor air clean-up levels for all COCs in the ROD Amendment (EPA, 2010).

conditions. At that time, negative pressure was observed across all exterior doorways in both buildings. The building tenant subsequently worked with its HVAC contractor to address the issue such that positive pressure would be maintained throughout the buildings. HVAC modification work was completed on 19 January 2013 and confirmation readings were collected on 22 January 2013 to document observable changes to building pressurization. The confirmation readings indicated that the building envelopes were under positive pressure (Table 2 of the Indoor Air Sampling Report – Geosyntec, 2013b).

On 22 January 2013, confirmation indoor air samples were collected from all previous sample locations with the HVAC system on to verify the effectiveness of additional conduit sealing and HVAC operational adjustments. An outdoor HVAC inlet sample was also collected for comparison purposes.

Figures 3 and 4 depict all of the indoor and outdoor air sample results for TCE obtained from buildings located at 369 and 379 North Whisman Road, respectively. The following summarizes the data obtained in 2013, along with proposed tiering designations, for each of these buildings.

- After additional sealing of potential conduits/preferential pathways and HVAC operational adjustments, none of the samples collected with the HVAC system on exceeded the EPA commercial indoor air clean-up level for TCE, and all other COCs were below their detection limits.
- While the HVAC modifications provide continuous positive pressure and maintain indoor air quality at acceptable levels, the HVAC system off sampling indicated indoor air concentrations of TCE were above the EPA commercial indoor air cleanup. Therefore, it is anticipated that these buildings will be designated as Tier 2.

### **2.1.2 464 Ellis Street**

The VI work performed at 464 Ellis Street in 2013 included building assessment and sealing activities, a building walk-through, development of a building-specific sampling work plan, and indoor and outdoor air sampling and analysis.

#### ***2.1.2.1 Building Assessment and Sealing Activities***

A Geosyntec representative performed an initial building assessment at 464 Ellis Street on 22 February 2013. The building assessment was performed prior to submittal of an

indoor air sampling work plan to identify potential conduits that needed sealing as a result of building renovations. Potential conduits identified during the building assessment were sealed as follows:

- New trench cuts, existing floor cracks, and existing expansion/control joints in the first floor concrete slab were sealed by caulking using DAP Watertight Concrete Filler and Sealant (DAP). Before sealing with DAP, the floor cracks were cleaned using a vacuum and an air hose;
- Wall ports, floor ports, and conduits were sealed using silicone rubber sealant around the base and Touch-n-Seal Quick Cure straw foam or FireStop putty inside each conduit at the location where it daylights;
- High-voltage electrical conduits were sealed by Sprig Electric using non-ignitable foam;
- The interstitial space between fire riser pipes and surface penetrations was sealed with DAP; and
- Existing conduits located in an exterior vault were sealed with FireStop putty.

### ***2.1.2.2 Building Walk-Through and Sampling Work Plan***

Building walk-throughs were performed to evaluate the building conditions, including, but not limited to: building construction; HVAC systems and use; potential sources of COCs (e.g., conduits that may be preferential VI pathways; internal VOC sources); and building use, which provided the basis for developing a site-specific sampling plan.

In accordance with the site-wide Sampling and Analysis Plan (H&A, 2011), Geosyntec obtained access, scheduled, and performed a walk-through at 464 Ellis Street on 26 August 2013 (Table 1). The EPA was notified in advance and an EPA representative accompanied Geosyntec personnel on this walk-through. A site-specific work plan was subsequently submitted and approved by the EPA (Table 1; Geosyntec 2013e).

### ***2.1.2.3 Air Sampling Activities***

As described in the building-specific Indoor Air Sampling Report (Geosyntec, 2013d), pre-occupancy HVAC-on and HVAC-off samples were collected in August 2013. Outdoor air samples were also collected on each day of indoor air sampling for comparison purposes.

All indoor and outdoor air samples were collected over an eight-hour time period in SIM individually certified 6-Liter SUMMA<sup>®</sup> canisters and analyzed for site-specific COCs. The analysis was conducted using EPA Method TO-15 SIM by a laboratory certified by the National Environmental Laboratory Accreditation Conference.

#### ***2.1.2.4 Sampling Results***

As described in the Indoor Air Sampling Report (Geosyntec, 2013d) pre-occupancy HVAC-on and HVAC-off indoor and outdoor air samples were collected on 27 August 2013 and 30 August 2013, respectively.

All indoor and outdoor air sampling data are summarized on Figure 5 and Table 2 and presented below, along with a proposed building tiering designation:

- The results of indoor air sampling performed with the HVAC systems on and off indicated no COCs were present in indoor air above their site-specific EPA commercial indoor air clean-up levels established in the ROD Amendment (EPA, 2010).
- In accordance with Table 2B of the VI SOW (EPA, 2011), this building may be classified as Tier 3B, “Building with indoor air concentrations at or within outdoor air (background) concentrations,” where background concentrations are defined as “from below laboratory analytical detection limits to 0.4  $\mu\text{g}/\text{m}^3$ ” (EPA, 2010). As such, an engineered remedy and long-term monitoring are not required for this building.

#### **2.1.3 466 Ellis Street**

The VI work performed at 466 Ellis Street in 2013 included building assessment and sealing activities, a building walk-through, development of a building-specific sampling work plan, indoor and outdoor air sampling and analysis, and reporting.

##### ***2.1.3.1 Building Assessment and Sealing Activities***

A Geosyntec representative performed an initial building assessment at 466 Ellis Street on 22 February 2013. The building assessment was performed prior to submittal of an indoor air sampling work plan to identify potential conduits that needed sealing as a result of building renovations. Several potential conduits identified during the building assessment were sealed in accordance with the procedures described in Section 2.1.2.1.

### ***2.1.3.2 Building Walk-Through and Work Plan***

In accordance with the site-wide Sampling and Analysis Plan (H&A, 2011), Geosyntec obtained access, scheduled, and performed a walk-through at 466 Ellis Street on 1 May 2013 (Table 1). The EPA was notified in advance and an EPA representative accompanied Geosyntec personnel on this walk-through. A site-specific work plan was subsequently submitted and approved by the EPA (Table 1; Geosyntec 2013f).

### ***2.1.3.3 Air Sampling Activities***

As described in the building-specific Indoor Air Sampling Report (Geosyntec, 2013c), two rounds of pre-occupancy HVAC-on and HVAC-off samples were collected in May 2013. The first round was collected on 3 May 2013 (HVAC-on conditions) and 6 May 2013 (HVAC-off conditions), following completion of conduit sealing activities.

The second round was collected on 29 May 2013 (HVAC-on conditions) and 31 May 2013 (HVAC-off conditions) following the removal of an indoor source of TCE, as described in Section 2.1.3.4.

Outdoor air samples were also collected on each day of indoor air sampling for comparison purposes. All indoor and outdoor air samples were collected over an eight-hour time period in SIM individually certified 6-Liter SUMMA<sup>®</sup> canisters and analyzed for site-specific COCs. The analysis was conducted using EPA Method TO-15 SIM by a laboratory certified by the National Environmental Laboratory Accreditation Conference.

### ***2.1.3.4 Sampling Results and Supplemental Building Assessment***

As described in the Indoor Air Sampling Report (Geosyntec, 2013c), the first round of pre-occupancy HVAC-on and HVAC-off air samples was collected on 3 May 2013 and 6 May 2013, respectively.

Results from the first round of HVAC-off sampling indicated the presence of TCE at concentrations above the site-specific EPA commercial indoor air cleanup level. After receipt of results from the first round of sampling, the property owner reported that a building walk-through was conducted during which a recently installed sound insulation product was identified to be off-gassing TCE. The product was subsequently removed, and the building was allowed to ventilate for approximately one week prior to resampling. An additional building assessment was performed at 466 Ellis Street on 24

May 2013 prior to resampling of the indoor and outdoor air on 29 May 2013 and 31 May 2013.

The second round of sampling was performed in the same manner and at the same locations as the initial event, on 29 May 2013 (HVAC-on) and 31 May 2013 (HVAC-off).

All indoor and outside air sampling data are summarized in Figure 6 and Table 2 and are presented below, along with a proposed building tiering designation:

- No COCs were detected during the second round of sampling under HVAC-on and HVAC-off conditions.
- In accordance with Table 2B of the SOW (EPA, 2011), this building may be classified as Tier 3B, “Building with indoor air concentrations at or within outdoor air (background) concentrations.” As such, no engineered remedy is required for this building.

## **2.2 Reporting**

Geosyntec submitted the results of the 2013 VI evaluation activities performed in the four buildings located at former Fairchild properties to the EPA as follows:

- 369 and 379 North Whisman Road –Indoor Air Sampling Report, Former Fairchild Buildings – Google Quad, 369, 379, 389 and 399 North Whisman Road and 468 Ellis Street (Geosyntec, 2013b);
- 464 Ellis Street –Indoor Air Sampling Report, Former Fairchild Property, 464 Ellis Street, Mountain View, California (Geosyntec, 2013d); and
- 466 Ellis Street –Indoor Air Sampling Report, Former Fairchild Property, 466 Ellis Street, Mountain View, California (Geosyntec, 2013c).

Field activities performed in 2013 at former Fairchild properties located within the VI Study Area were also documented in Monthly Vapor Intrusion Field Activity and Progress Reports that were submitted to the EPA in accordance with the VI SOW as follows:

- Geosyntec, 14 February 2013;
- Geosyntec, 12 March 2013;

- Geosyntec, 9 April 2013;
- Geosyntec, 28 May 2013;
- Geosyntec, 10 June 2013;
- Geosyntec, 9 July 2013;
- Geosyntec, 9 August 2013;
- Geosyntec, 9 September 2013;
- Geosyntec, 8 October, 2013;
- Geosyntec, 11 November 2013;
- Geosyntec, 10 December 2013; and
- Geosyntec, 14 January 2014.

### **2.3 Community Involvement and Meetings**

Community meetings continue to be held by EPA representatives, including meetings with the Moffett Field Restoration Advisory Board. In addition, meetings with the Moffett-MEW Community Advisory Board (CAB) are held when scheduled by the CAB.

### **2.4 Interim Vapor Intrusion Mitigation Measures**

Modifications to the HVAC systems operating in the 369 and 379 North Whisman Road buildings were implemented in January 2013. The most recent indoor air samples collected with the HVAC systems on during this reporting period showed COC concentrations are below their respective site-specific EPA commercial indoor air cleanup levels. However, because the HVAC-off sample results indicated TCE was present in the indoor air at levels above its site-specific EPA commercial indoor air cleanup level, SSD systems were recommended for these buildings.

In addition, although not required by the VI SOW, the property owner of 389 and 399 North Whisman Road has elected to install SSD systems in these two buildings.

### **2.5 Remedial Design Activities**

Geosyntec submitted the following documents in 2013 to support design of SSD systems in the buildings located at 369 through 399 North Whisman Road:

- 1 March 2013: Sub-Slab Depressurization System Pilot Test Work Plan, 369 and 379 N. Whisman Road (Geosyntec, 2013g). The EPA provided conditional written approval on 25 March 2013;
- 6 May 2013 (revised 6 June 2013): Sub-Slab Depressurization System Pilot Test Results, 369 and 379 N. Whisman Road (Geosyntec, 2013h, Geosyntec 2013i);
- 3 July 2013 (amended 13 September 2013): Building-Specific Vapor Intrusion Control System Remedial Design, 369 and 379 North Whisman Road (Geosyntec, 2013j; Geosyntec, 2013k). The EPA provided conditional approval of the SSD system design on 23 August 2013; and
- 18 October 2013: Sub-Slab Depressurization System Design, 389 and 399 North Whisman Road (Geosyntec, 2013l). The EPA provided conditional approval of the SSD system design on 27 November 2013.

## **2.6 Remedial Action Activities**

VI remedial action activities performed during 2013 included construction of SSD systems at 369 through 399 North Whisman Road. Construction at 369 North Whisman Road commenced on 18 November 2013, followed by 379 North Whisman Road on 9 December 2013, and 389 and 399 North Whisman Road on 16 December 2013. Construction will be completed in 2014. As noted in Section 2.4, VI sampling results at 389 and 399 North Whisman Road did not indicate that an engineered remedy would be required. The property owner, however, has elected to proceed with installation of SSD systems in these two buildings.

In addition, a Building-Specific Long-term Vapor Intrusion Operations, Maintenance and Monitoring Plan, 369 and 379 North Whisman Road (VI OM&M Plan; Geosyntec, 2013m) was submitted to the EPA on 21 October 2013.

### **3. DELAYS AND PROBLEMS ENCOUNTERED**

The building tiering process could not be completed in 2013 due to the EPA's delay in completion of its review and approval of the Revised Tiering Work Plan (H&A, 2013), which was submitted to the EPA on 22 March 2013. Upon approval of the Revised Tiering Work Plan by EPA, it is expected that implementation of the VI tiering will begin.

No other significant delays related to VI activities were encountered in 2013.

#### 4. ANTICIPATED ACTIVITIES PLANNED FOR 2014

Geosyntec anticipates implementation of the following activities in 2014:

- Submit a Sub-Slab Depressurization System Operations, Maintenance, and Monitoring Plan, for informational purposes only, to support ongoing OM&M of the SSD systems installed in the buildings located at 389 and 399 North Whisman Road.
- Complete construction of the SSD systems in the buildings located at 369, 379, 389 and 399 North Whisman Road as described in design reports (Geosyntec, 2013j; Geosyntec, 2013k; Geosyntec, 2013l).
- Submit a Building-Specific Vapor Intrusion Response Action Implementation Report for the SSD systems installed in the buildings located at 369 and 379 North Whisman Road and a Sub-Slab Depressurization System Implementation Report for the SSD systems installed in the buildings located at 389 and 399 North Whisman Road. The reports will be submitted to EPA within 60 days after completion of the three-month startup testing program following construction completion.
- Begin ongoing operation, maintenance and monitoring programs for SSD systems installed in the buildings located at 369, 379, 389, and 399 North Whisman Road, in accordance with the OM&M Plans.
- Submit Supplemental Building-Specific Vapor Intrusion Sampling and Analysis Work Plans to perform indoor and outdoor air sampling for tiering purposes at 313 and 323 Fairchild Drive, and 515 and 545 North Whisman Road. Supplemental work plans will be submitted to the EPA within 30 days of the EPA's approval of the Revised Tiering Work Plan. Subsequent sampling and reporting will be performed in accordance with the VI SOW (EPA, 2011).
- Submit Property-Specific Vapor Intrusion Evaluation Reports to assign building tiers to 401 National Drive and 644 National Drive and Building-Specific Vapor Intrusion Evaluation Reports to assign building tiers to 369 through 399 North Whisman Road and 464 through 468 Ellis Street. Property- and building-specific evaluation reports will be submitted to the EPA within 30 days of the EPA's approval of the Revised Tiering Work Plan.
- Submit Monthly Vapor Intrusion Progress Reports to the EPA on the second Tuesday of each month in accordance with Section 2.6.2 of the VI SOW.

An updated schedule that shows overall VI work completed, VI work planned for 2014, and the overall project schedule for VI work task completion is provided as Table 3.

## 5. CONCLUSIONS AND RECOMMENDATIONS

The following can be concluded based upon the results of activities performed in 2013:

- At the building located at 464 Ellis Street, with the HVAC systems on and off, the concentrations of COCs in indoor air are below their site-specific EPA commercial indoor air cleanup levels set forth in the ROD Amendment (EPA, 2010) and within outdoor air (background) concentrations. Based on these findings, it is anticipated that this building will be categorized as Tier 3B following EPA's approval of the Revised Tiering Work Plan.
- As described in Section 2.3.4, after the removal of sound insulation that was determined to be an indoor source of TCE, air sampling at 466 Ellis Street with the HVAC systems on and off indicated that no COCs were detected in the indoor air. Based on these findings, it is anticipated that this building will be categorized as Tier 3B following EPA's approval of the Revised Tiering Work Plan.
- At the buildings located at 369 and 379 North Whisman Road, the concentrations of COCs in indoor air are below their site-specific EPA commercial indoor air screening levels; however, TCE concentrations are above the EPA commercial indoor air screening level with the HVAC system off. Therefore, these properties can be categorized as Tier 2. As described in Sections 2.7 and 2.8, a pilot scale study followed by design and construction of SSD systems in these two buildings was initiated in accordance with the VI SOW (EPA, 2011). Once the SSD systems are installed and operational, confirmation indoor air sampling will be performed.
- Although the concentrations of COCs detected in indoor air of the buildings located at 389 and 399 North Whisman Road are below their site-specific EPA commercial indoor air screening levels with the HVAC systems on and off, the property owner has elected to install SSD systems in these buildings. As described in Sections 2.7 and 2.8, a pilot scale study followed by design and construction of SSD systems in these two buildings was initiated in accordance with the VI SOW (EPA, 2011).

## 6. REFERENCES

- United States Environmental Protection Agency (EPA), 2010, “Record of Decision Amendment for the Vapor Intrusion Pathway, Middlefield-Ellis-Whisman (MEW) Superfund Study Area, Mountain View and Moffett Field, California,” August.
- EPA, 2011, “Statement of Work for Remedial Design and Remedial Action to Address the Vapor Intrusion Pathway Middlefield-Ellis-Whisman (MEW) Superfund Study Area, Mountain View and Moffett Field, California,” 16 September.
- Geosyntec, 2013a, “2012 Annual Vapor Intrusion Progress Report, Former Fairchild Properties, Middlefield-Ellis-Whisman (MEW) Area, Mountain View, California,” 15 April.
- Geosyntec, 2013b, “Indoor Air Sampling Report, Former Fairchild Buildings – Google Quad, 369, 379, 389 and 399 North Whisman Road and 468 Ellis Street,” February.
- Geosyntec, 2013c, “Indoor Air Sampling Report, Former Fairchild Property, 466 Ellis Street, Mountain View, California,” 3 July.
- Geosyntec, 2013d, “Indoor Air Sampling Report, Former Fairchild Property, 464 Ellis Street, Mountain View, California,” 29 October.
- Geosyntec, 2013e, “Building-Specific Sampling Plan, 464 Ellis Street, Mountain View, California,” 24 July.
- Geosyntec, 2013f, “Building-Specific Sampling Plan, 466 Ellis Street, Mountain View, California,” 26 April.
- Geosyntec, 2013g, “Sub-Slab Depressurization System Pilot Test Work Plan, 369 and 379 N. Whisman Road, Mountain View, California,” 1 March.
- Geosyntec, 2013h, “Sub-Slab Depressurization System Pilot Test Results, 369 and 379 N. Whisman Road, Mountain View, California,” 6 May.
- Geosyntec, 2013i, “Revised Sub-Slab Depressurization System Pilot Test Results, 369 and 379 N. Whisman Road, Mountain View, California,” 6 June.
- Geosyntec, 2013j, “Building-Specific Vapor Intrusion Control System Remedial Design, 369 and 379 North Whisman Road, Mountain View, California,” 3 July.

- Geosyntec, 2013k, “Addendum #1 to the Building-Specific Vapor Intrusion Control System Remedial Design, 369 and 379 North Whisman Road, Mountain View, California,” 13 September.
- Geosyntec, 2013l, “Sub-Slab Depressurization System Design, 389 and 399 North Whisman Road, Mountain View, California,” 18 October.
- Geosyntec, 2013m, “Building-Specific Long-Term Vapor Intrusion Operations, Maintenance, and Monitoring Plan, 369 and 379 North Whisman Road, Mountain View, California,” 21 October.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 14 February.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 12 March.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 9 April.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 28 May.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 10 June.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 9 July.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 9 August.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 9 September.

- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 8 October.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 11 November.
- Geosyntec, 2013, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 10 December.
- Geosyntec, 2014, “Monthly Vapor Intrusion Field Activity and Progress Report, Middlefield-Ellis-Whisman (MEW) Area and Moffett Field, California,” 14 January.
- Haley & Aldrich, Inc., 2009, “Final Supplemental Remedial Investigation for Vapor Intrusion Pathway, Middlefield-Ellis-Whisman Study Area, Mountain View and Moffett Field, California,” June.
- Haley & Aldrich, Inc. (H&A), 2011, “Indoor Air Sampling and Analysis Work Plan for Existing, Unsampled Commercial Buildings, Middlefield-Ellis-Whisman Study Area, Mountain View, California,” 7 June.
- H&A, 2013. “Revised Site-Wide Vapor Intrusion Sampling and Analysis Work Plan for Response Action Tiering, Middlefield-Ellis-Whisman Superfund Area, Mountain View, California and Moffett Field,” 22 March.

# TABLES

**TABLE 2**  
**AIR SAMPLING RESULTS 2013**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building	Location / Sample ID	Sample Date	Ventilation Status	Sample Purpose	Sample Duration (hours)	Sample Type	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	Vinyl chloride
<b>Site-Specific EPA Commercial Indoor Air Cleanup Level</b>							6	700	210	2	210	5	2
<b>HVAC On</b>													
369 N. Whisman Rd.	369AMB1	05/06/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
369 N. Whisman Rd.	369AMB1	5/13/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	<0.24	<0.70	<0.19	<0.045
369 N. Whisman Rd.	369AMB1	10/2/2003	On	Indoor	10	Primary	<0.14	<0.069	0.19	0.75	<0.69	0.53	0.12
369 N. Whisman Rd.	369AMB1	10/7/2003	On	Indoor	10	Primary	<0.14	<0.068	0.58	<b>2.2</b>	<0.68	1.6	<0.044
369 N. Whisman Rd.	369AMB1	6/30/2010	On	Indoor	10	Primary	<0.020	0.089	0.014 J	0.071 J	<0.055	3.0	<0.013
369 N. Whisman Rd.	369AMB1*	6/30/2010	On	Indoor	10	Duplicate	<0.020	0.086	0.013 J	0.074 J	<0.055	2.7	<0.013
369 N. Whisman Rd.	369AMB2	5/6/2003	On	Indoor	10	Primary	<0.13	<0.064	<0.13	0.33	<0.64	<0.17	<0.041
369 N. Whisman Rd.	369AMB2	5/13/2003	On	Indoor	10	Primary	0.88	<0.068	<0.14	0.30	<0.68	<0.18	<0.044
369 N. Whisman Rd.	369AMB2	10/2/2003	On	Indoor	10	Primary	<0.14	<0.069 J	<0.14	0.31	<0.69	0.33	<0.044
369 N. Whisman Rd.	369AMB2	10/7/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	0.44	<0.69	0.28	<0.044
369 N. Whisman Rd.	369AMB2	6/30/2010	On	Indoor	10	Primary	<0.020	0.087	0.016 J	0.079 J	<0.055	2.8	<0.013
369 N. Whisman Rd.	369AMB3	5/6/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	<0.24	<0.70	<0.19	<0.045
369 N. Whisman Rd.	369AMB3	5/13/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	<0.24	<0.70	<0.19	<0.045
369 N. Whisman Rd.	369AMB3	10/2/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	0.40	<0.69	0.41	<0.044
369 N. Whisman Rd.	369AMB3	10/7/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	0.45	<0.69	0.33	<0.044
369 N. Whisman Rd.	369AMB3*	10/7/2003	On	Indoor	10	Duplicate	<0.14	<0.069	<0.14	0.49	<0.69	0.34	<0.044
369 N. Whisman Rd.	369AMB3	6/30/2010	On	Indoor	10	Primary	<0.020	0.066	0.011 J	0.062 J	<0.056	2.2	0.0070 J
369 N. Whisman Rd.	369AMB3	11/21/2012	On	Indoor	8	Primary	<0.13	<0.065	<0.13	0.074	<0.65	0.14	<0.042
369 N. Whisman Rd.	369AMB3	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	0.13	<0.051
369 N. Whisman Rd.	369AMB3	1/22/2013	On	Indoor	8	Primary	<0.14	<0.067	<0.13	<0.23	<0.67	<0.18	<0.043
369 N. Whisman Rd.	369AMB4	5/6/2003	On	Indoor	10	Primary	<0.13	<0.064	<0.13	<0.22	<0.64	0.17 J	<0.041
369 N. Whisman Rd.	369AMB4	5/13/2003	On	Indoor	10	Primary	<0.14	<0.068	<0.14	0.26	<0.68	<0.18	<0.044
369 N. Whisman Rd.	369AMB4	10/2/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	0.67	<0.044
369 N. Whisman Rd.	369AMB4	10/7/2003	On	Indoor	10	Primary	<0.14	<0.068	<0.14	0.46	<0.68	0.32	<0.044
369 N. Whisman Rd.	369AMB4	6/30/2010	On	Indoor	10	Primary	<0.020	0.054	0.011 J	0.060 J	<0.055	1.9	0.0069 J
369 N. Whisman Rd.	369AMB5	6/30/2010	On	Indoor	10	Primary	<0.020	0.078	0.015 J	0.065 J	<0.055	2.7	0.0097 J
369 N. Whisman Rd.	369AMB5*	6/30/2010	On	Indoor	10	Duplicate	<0.020	0.089	0.017 J	0.078 J	<0.055	3.2	0.0053 J
369 N. Whisman Rd.	369AMB5	11/21/2012	On	Indoor	8	Primary	<0.13	<0.065	<0.13	0.081	<0.65	1.4	<0.042
369 N. Whisman Rd.	369AMB5*	11/21/2012	On	Indoor	8	Duplicate	<0.12	<0.061	<0.12	0.078	<0.61	1.5	<0.04
369 N. Whisman Rd.	369AMB5	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	0.19	<0.079	<b>6.4</b>	<0.051
369 N. Whisman Rd.	369AMB5	1/22/2013	On	Indoor	8	Primary	<0.13	<0.065	<0.13	<0.22	<0.65	<0.18	<0.042
369 N. Whisman Rd.	369AMB6	11/21/2012	On	Indoor	8	Primary	<0.14	<0.067	<0.13	0.079	<0.67	1.6	<0.043
369 N. Whisman Rd.	369AMB6	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	0.16	<0.079	<b>5.8</b>	<0.051
369 N. Whisman Rd.	369AMB6	1/22/2013	On	Indoor	8	Primary	<0.13	<0.064	<0.13	<0.22	<0.64	<0.17	<0.041
369 N. Whisman Rd.	369AMB7	11/21/2012	On	Indoor	8	Primary	<0.14	<0.067	<0.13	0.054	<0.67	0.095	<0.043
369 N. Whisman Rd.	369AMB7	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	0.15	<0.051
369 N. Whisman Rd.	369AMB7	1/22/2013	On	Indoor	8	Primary	<0.11	<0.055	<0.11	<0.19	<0.55	<0.15	<0.036

**TABLE 2**  
**AIR SAMPLING RESULTS 2013**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building	Location / Sample ID	Sample Date	Ventilation Status	Sample Purpose	Sample Duration (hours)	Sample Type	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	Vinyl chloride
<b>Site-Specific EPA Commercial Indoor Air Cleanup Level</b>							6	700	210	2	210	5	2
<b>HVAC On</b>													
369 N. Whisman Rd.	369AMB8	11/21/2012	On	Indoor	8	Primary	<0.13	<0.064	<0.13	0.1	<0.64	1.4	<0.041
369 N. Whisman Rd.	369AMB8	12/29/2012	On	Indoor	8	Primary	<0.081	0.078	<0.079	0.18	<0.079	<b>6.2</b>	<0.051
369 N. Whisman Rd.	369AMB8	1/22/2013	On	Indoor	8	Primary	<0.14	<0.067	<0.13	<0.23	<0.67	<0.18	<0.043
369 N. Whisman Rd.	369HVAC1	5/6/2003	On	Outdoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
369 N. Whisman Rd.	369HVAC1	5/13/2003	On	Outdoor	10	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
369 N. Whisman Rd.	369HVAC1	6/29/2010	On	Outdoor	24	Primary	<0.020	<0.020	<0.055	0.042 J	<0.055	0.16	0.043
369 N. Whisman Rd.	369HVAC1	11/21/2012	On	Outdoor	8	Primary	<0.13	<0.065	<0.13	0.042	<0.65	0.029	<0.042
369 N. Whisman Rd.	369HVAC1	12/29/2012	On	Outdoor	8	Primary	<0.081	<0.079	<0.079	0.56	<0.079	<0.11	<0.051
369 N. Whisman Rd.	369HVAC1	1/22/2013	On	Outdoor	8	Primary	<0.12	<0.061	<0.12	<0.21	<0.61	<0.17	<0.040
369 N. Whisman Rd.	369HVAC2	5/6/2003	On	Outdoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
369 N. Whisman Rd.	369HVAC2	5/13/2003	On	Outdoor	10	Primary	<0.14	<0.069	<0.14	0.23 J	<0.69	<0.19	<0.044
369 N. Whisman Rd.	369PATH1	5/6/2003	On	Pathway	10	Primary	<0.14	<0.070	<0.14	<0.24	<0.70	<0.19	<0.045
369 N. Whisman Rd.	369PATH1*	5/6/2003	On	Pathway	10	Duplicate	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
369 N. Whisman Rd.	369PATH1	5/13/2003	On	Pathway	10	Primary	<0.14	<0.069	<0.14	0.23 J	<0.69	<0.19	<0.044
369 N. Whisman Rd.	369PATH2	6/30/2010	On	Pathway	10	Primary	<0.020	0.064	0.0099 J	0.068 J	<0.055	2.0	<0.013
369 N. Whisman Rd.	369/379OUT1	12/29/2012	On	Outdoor	8	Primary	<0.081	<0.079	<0.079	0.13	<0.079	<0.11	<0.051
369 N. Whisman Rd.	369/379OUT1	1/22/2013	On	Outdoor	8	Primary	<0.13	<0.064	<0.13	<0.22	<0.64	<0.17	<0.041
<b>HVAC Off</b>													
369 N. Whisman Rd.	369AMB1	3/14/2010	Off	Indoor	10	Primary	<0.020	0.21	0.013 J	0.084 J	<0.056	4.3	<0.013
369 N. Whisman Rd.	369AMB1*	3/14/2010	Off	Indoor	10	Duplicate	<0.020	0.20	0.015 J	0.087 J	<0.056	4.5	<0.013
369 N. Whisman Rd.	369AMB2	3/14/2010	Off	Indoor	10	Primary	<0.020	0.094	<0.056	0.083 J	<0.056	1.9	<0.013
369 N. Whisman Rd.	369AMB3	3/14/2010	Off	Indoor	10	Primary	<0.020	0.15	0.011 J	0.093 J	<0.056	3.4	0.0060 J
369 N. Whisman Rd.	369 AMB3	11/23/2012	Off	Indoor	8	Primary	<0.13	0.11	<0.13	0.091	<0.65	3.1	<0.042
369 N. Whisman Rd.	369 AMB3	1/1/2013	Off	Indoor	8	Primary	<0.081	0.14	<0.079	<0.14	<0.079	4.9	<0.051
369 N. Whisman Rd.	369AMB4	3/14/2010	Off	Indoor	10	Primary	<0.020	0.11	<0.056	0.077 J	<0.056	2.3	<0.013
369 N. Whisman Rd.	369AMB5	3/14/2010	Off	Indoor	10	Primary	<0.020	0.10	0.012 J	0.11 J	<0.056	2.4	<0.013
369 N. Whisman Rd.	369AMB5	11/23/2012	Off	Indoor	8	Primary	<0.13	0.32	<0.13	0.16	<0.65	<b>13</b>	<0.042
369 N. Whisman Rd.	369AMB5*	11/23/2012	Off	Indoor	8	Duplicate	<0.13	0.31	<0.13	0.12	<0.64	<b>12</b>	<0.041
369 N. Whisman Rd.	369AMB5	1/1/2013	Off	Indoor	8	Primary	<0.081	0.18	<0.079	<0.14	<0.079	<b>5.2</b>	<0.051
369 N. Whisman Rd.	369AMB6	11/23/2012	Off	Indoor	8	Primary	<0.14	0.61	0.17	0.22	<0.68	<b>36</b>	<0.044
369 N. Whisman Rd.	369AMB6	1/1/2013	Off	Indoor	8	Primary	<0.081	0.59	0.13	0.17	<0.079	<b>30</b>	<0.051
369 N. Whisman Rd.	369 AMB7	11/23/2012	Off	Indoor	8	Primary	<0.13	0.12	<0.13	0.098	<0.65	3.3	<0.042
369 N. Whisman Rd.	369 AMB7	1/1/2013	Off	Indoor	8	Primary	<0.081	0.16	<0.079	<0.14	<0.079	<b>5.7</b>	<0.051
369 N. Whisman Rd.	369AMB8	11/23/2012	Off	Indoor	8	Primary	<0.14	0.28	<0.13	0.097	<0.67	<b>6.2</b>	<0.043
369 N. Whisman Rd.	369AMB8	1/1/2013	Off	Indoor	8	Primary	<0.081	0.38	<0.079	<0.14	<0.079	<b>5.6</b>	<0.051
369 N. Whisman Rd.	369OUT1	3/13/2010	Off	Outdoor	24	Primary	<0.020	<0.020	<0.056	0.068 J	<0.056	0.071	<0.013
369 N. Whisman Rd.	369-399OUT1	11/23/2012	Off	Outdoor	8	Primary	<0.13	<0.064	<0.13	0.054	<0.64	<0.026	<0.041
369 N. Whisman Rd.	369/379OUT1	1/1/2013	Off	Outdoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
369 N. Whisman Rd.	369PATH2	3/14/2010	Off	Pathway	10	Primary	<0.020	0.11	0.010 J	0.083 J	<0.056	2.2	<0.013

**TABLE 2**  
**AIR SAMPLING RESULTS 2013**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building	Location / Sample ID	Sample Date	Ventilation Status	Sample Purpose	Sample Duration (hours)	Sample Type	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	Vinyl chloride
<b>Site-Specific EPA Commercial Indoor Air Cleanup Level</b>							6	700	210	2	210	5	2
<b>HVAC On</b>													
379 N. Whisman Rd.	379AMB1	05/06/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	0.61	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB1	05/13/2003	On	Indoor	10	Primary	<0.13	<0.066	<0.13	0.24	<0.66	<0.18	<0.043
379 N. Whisman Rd.	379AMB1	10/02/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	<0.24	<0.70	<0.19	<0.045
379 N. Whisman Rd.	379AMB1	10/07/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	0.72	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB1	09/09/2010	On	Indoor	10	Primary	<0.020	<0.020	0.027 J	0.15	<0.055	0.59	<0.013
379 N. Whisman Rd.	379AMB1	11/21/2012	On	Indoor	8	Primary	<0.14	<0.068	<0.14	0.11	<0.68	1.3	<0.044
379 N. Whisman Rd.	379AMB1	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	0.67	<0.079	1.8	<0.051
379 N. Whisman Rd.	379AMB1	01/22/2013	On	Indoor	8	Primary	<0.13	<0.065	<0.13	<0.22	<0.65	<0.18	<0.042
379 N. Whisman Rd.	379AMB2	05/06/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB2	05/13/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB2	10/02/2003	On	Indoor	10	Primary	<0.13	<0.064	<0.13	<0.22	<0.64	<0.17	<0.041
379 N. Whisman Rd.	379AMB2	10/07/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	0.69	<0.70	0.19 J	<0.045
379 N. Whisman Rd.	379AMB2	09/09/2010	On	Indoor	10	Primary	<0.020	<0.020	0.026 J	0.11 J	<0.055	0.48	<0.013
379 N. Whisman Rd.	379AMB2	11/21/2012	On	Indoor	8	Primary	<0.14	<0.067	<0.13	0.072	<0.67	1.4	<0.043
379 N. Whisman Rd.	379AMB2	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	0.64	<0.079	1.8	<0.051
379 N. Whisman Rd.	379AMB2	01/22/2013	On	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
379 N. Whisman Rd.	379AMB3	05/06/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB3*	05/13/2003	On	Indoor	10	Duplicate	<0.13	<0.066	<0.13	0.26	<0.66	<0.18	<0.043
379 N. Whisman Rd.	379AMB3	05/13/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB3	10/02/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	<0.24	<0.70	<0.19	<0.045
379 N. Whisman Rd.	379AMB3	10/07/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	0.61	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB3	09/09/2010	On	Indoor	10	Primary	<0.020	<0.020	0.016 J	0.12 J	<0.055	0.71	<0.013
379 N. Whisman Rd.	379AMB3	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	0.48	<0.079	1.4	<0.051
379 N. Whisman Rd.	379AMB3	01/22/2013	On	Indoor	8	Primary	<0.14	<0.067	<0.13	<0.23	<0.67	<0.18	<0.043
379 N. Whisman Rd.	379AMB4	05/06/2003	On	Indoor	10	Primary	<0.13	<0.062	<0.12	<0.21	<0.62	<0.17	<0.040
379 N. Whisman Rd.	379AMB4	05/13/2003	On	Indoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379AMB4	10/02/2003	On	Indoor	10	Primary	<0.15	<0.072	<0.14	<0.25	<0.72	<0.20	<0.046
379 N. Whisman Rd.	379AMB4	10/07/2003	On	Indoor	10	Primary	<0.14	<0.070	<0.14	0.59	<0.70	<0.19	<0.045
379 N. Whisman Rd.	379AMB4	09/09/2010	On	Indoor	10	Primary	<0.020	<0.020	0.016 J	0.10 J	<0.056	0.65	<0.013
379 N. Whisman Rd.	379AMB4	11/21/2012	On	Indoor	8	Primary	<0.14	<0.068	<0.14	0.097	<0.68	0.64	<0.044
379 N. Whisman Rd.	379AMB4	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	0.71	<0.079	1.7	<0.051
379 N. Whisman Rd.	379AMB4	01/22/2013	On	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	0.20	<0.044
379 N. Whisman Rd.	379AMB5	09/09/2010	On	Indoor	10	Primary	<0.020	<0.020	0.019 J	0.075 J	<0.055	0.53	<0.013
379 N. Whisman Rd.	379AMB6	11/21/2012	On	Indoor	8	Primary	<0.13	<0.065	<0.13	0.11	<0.65	<b>7.8</b>	<0.042
379 N. Whisman Rd.	379AMB6	12/29/2012	On	Indoor	8	Primary	<0.081	<0.079	<0.079	1.2	<0.079	<b>7.5</b>	<0.051
379 N. Whisman Rd.	DUP-1*	12/29/2012	On	Indoor	8	Duplicate	<0.081	<0.079	<0.079	1.4	<0.079	<b>7.7</b>	<0.051
379 N. Whisman Rd.	379AMB6	01/22/2013	On	Indoor	8	Primary	<0.15	<0.072	<0.14	<0.25	<0.72	<0.20	<0.047
379 N. Whisman Rd.	DUP-1*	01/22/2013	On	Indoor	8	Duplicate	<0.13	<0.065	<0.13	<0.22	<0.65	<0.18	<0.042

**TABLE 2**  
**AIR SAMPLING RESULTS 2013**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building	Location / Sample ID	Sample Date	Ventilation Status	Sample Purpose	Sample Duration (hours)	Sample Type	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	Vinyl chloride
<b>Site-Specific EPA Commercial Indoor Air Cleanup Level</b>							6	700	210	2	210	5	2
<b>HVAC On</b>													
379 N. Whisman Rd.	379HVAC1	05/06/2003	On	Outdoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379HVAC1	05/13/2003	On	Outdoor	10	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
379 N. Whisman Rd.	379HVAC1	11/21/2012	On	Outdoor	8	Primary	<0.14	<0.067	<0.13	<0.034	<0.67	0.038	<0.043
379 N. Whisman Rd.	379HVAC2	05/06/2003	On	Outdoor	10	Primary	<0.13	<0.065	<0.13	<0.22	<0.65	<0.18	<0.042
379 N. Whisman Rd.	379HVAC2	05/13/2003	On	Outdoor	10	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
379 N. Whisman Rd.	379HVAC2	10/02/2003	On	Outdoor	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379HVAC2	10/07/2003	On	Outdoor	10	Primary	<0.14	<0.070	<0.14	0.64	<0.70	<0.19	<0.045
379 N. Whisman Rd.	379HVAC2*	10/07/2003	On	Outdoor	10	Duplicate	<0.14	<0.069	<0.14	0.72	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379HVAC2	12/29/2012	On	Outdoor	8	Primary	<0.081	<0.079	<0.079	1.1	<0.079	<0.11	<0.051
379 N. Whisman Rd.	379HVAC2	01/22/2013	On	Outdoor	8	Primary	<0.13	<0.065	<0.13	<0.22	<0.65	<0.18	<0.042
379 N. Whisman Rd.	379OUT1	07/22/2010	On	Outdoor	10	Primary	<0.020	<0.020	0.011 J	0.054 J	<0.055	0.046	<0.013
379 N. Whisman Rd.	379OUT1	09/08/2010	On	Outdoor	24	Primary	<0.020	<0.020	0.015 J	0.062 J	<0.055	0.077	<0.013
379 N. Whisman Rd.	379PATH1	05/06/2003	On	Pathway	10	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.044
379 N. Whisman Rd.	379PATH1	05/13/2003	On	Pathway	10	Primary	<0.13	<0.062	<0.12	0.26	<0.62	<0.17	<0.040
<b>HVAC Off</b>													
379 N. Whisman Rd.	379AMB1	07/23/2010	Off	Indoor	10	Primary	0.045	0.054	0.038 J	0.36	<0.055	<b>9.5</b>	<0.013
379 N. Whisman Rd.	379AMB1	09/11/2010	Off	Indoor	10	Primary	0.018 J	0.011 J	0.056	0.16	<0.055	3.1	<0.013
379 N. Whisman Rd.	379AMB1	01/28/2011	Off	Indoor	10	Primary	0.019 J	0.020	0.029 J	0.26	<0.055	4.1	<0.013
379 N. Whisman Rd.	379AMB1	11/23/2012	Off	Indoor	8	Primary	<0.13	0.24	<0.13	0.25	<0.64	<b>23</b>	<0.041
379 N. Whisman Rd.	379AMB1	01/01/2013	Off	Indoor	8	Primary	<0.081	0.31	<0.079	0.26	<0.079	<b>20</b>	<0.051
379 N. Whisman Rd.	379AMB2	07/23/2010	Off	Indoor	10	Primary	0.039	0.045	0.032 J	0.33	<0.055	<b>7.6</b>	<0.013
379 N. Whisman Rd.	379AMB2	09/11/2010	Off	Indoor	10	Primary	0.021	0.017 J	0.053 J	0.19	<0.055	3.6	<0.013
379 N. Whisman Rd.	379AMB2	01/28/2011	Off	Indoor	10	Primary	<0.020	<0.020	<0.055	0.25	<0.055	2.9	<0.013
379 N. Whisman Rd.	379AMB2	11/23/2012	Off	Indoor	8	Primary	<0.14	0.19	<0.13	0.22	<0.67	<b>14</b>	<0.043
379 N. Whisman Rd.	379AMB2	01/01/2013	Off	Indoor	8	Primary	<0.081	0.33	<0.079	0.27	<0.079	<b>14</b>	<0.051
379 N. Whisman Rd.	379AMB3	07/23/2010	Off	Indoor	10	Primary	<0.020	0.039	0.020 J	0.38	<0.055	4.6	0.0056 J
379 N. Whisman Rd.	379AMB3	09/11/2010	Off	Indoor	10	Primary	0.015 J	0.015 J	0.042 J	0.22	<0.055	2.9	<0.013
379 N. Whisman Rd.	379AMB3	01/28/2011	Off	Indoor	10	Primary	0.012 J	0.023	0.017 J	0.22	<0.055	1.8	0.0060 J
379 N. Whisman Rd.	379AMB3	11/23/2012	Off	Indoor	8	Primary	<0.13	0.27	<0.12	0.30	<0.63	<b>9.6</b>	<0.040
379 N. Whisman Rd.	379AMB3	01/01/2013	Off	Indoor	8	Primary	0.11	0.59	<0.079	0.41	<0.079	<b>13</b>	<0.051
379 N. Whisman Rd.	379AMB4	07/23/2010	Off	Indoor	10	Primary	0.038	0.068	0.032 J	0.53	<0.055	<b>7.5</b>	0.0072 J
379 N. Whisman Rd.	379AMB4	09/11/2010	Off	Indoor	10	Primary	<0.020	<0.020	0.011 J	0.21	<0.055	0.67	<0.013
379 N. Whisman Rd.	379AMB4	01/28/2011	Off	Indoor	10	Primary	0.017 J	0.042	<0.055	0.20	<0.055	2.3	<0.013
379 N. Whisman Rd.	379AMB4	11/23/2012	Off	Indoor	8	Primary	<0.14	0.26	<0.14	0.29	<0.69	<b>12</b>	<0.045
379 N. Whisman Rd.	379AMB4	01/01/2013	Off	Indoor	8	Primary	0.098	0.5	<0.079	0.39	<0.079	<b>14</b>	<0.051
379 N. Whisman Rd.	379AMB5	07/23/2010	Off	Indoor	10	Primary	0.039	0.044	0.034 J	0.35	<0.055	<b>9.2</b>	0.0091 J
379 N. Whisman Rd.	379AMB5	09/11/2010	Off	Indoor	10	Primary	0.024	0.017 J	0.058	0.18	<0.055	3.8	<0.013
379 N. Whisman Rd.	379AMB5	01/28/2011	Off	Indoor	10	Primary	<0.020	0.029	0.018 J	0.30	<0.055	3.9	0.0063 J

**TABLE 2**  
**AIR SAMPLING RESULTS 2013**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building	Location / Sample ID	Sample Date	Ventilation Status	Sample Purpose	Sample Duration (hours)	Sample Type	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	Vinyl chloride
<b>Site-Specific EPA Commercial Indoor Air Cleanup Level</b>							6	700	210	2	210	5	2
<b>HVAC Off</b>													
379 N. Whisman Rd.	379AMB6	11/23/2012	Off	Indoor	8	Primary	<0.11	0.84	0.51	0.67	<0.54	<b>130</b>	<0.035
379 N. Whisman Rd.	379AMB6	01/01/2013	Off	Indoor	8	Primary	<0.081	0.9	0.44	0.65	0.21	<b>110</b>	<0.051
379 N. Whisman Rd.	DUP-1*	01/01/2013	Off	Indoor	8	Duplicate	<0.081	0.93	0.45	0.63	0.21	<b>120</b>	<0.051
379 N. Whisman Rd.	379OUT1	07/22/2010	Off	Outdoor	24	Primary	<0.020	<0.020	0.011 J	0.054 J	<0.055	0.046	<0.013
379 N. Whisman Rd.	379OUT1	09/11/2010	Off	Outdoor	24	Primary	<0.020	<0.020	0.019 J	0.071 J	<0.055	0.29	<0.013
379 N. Whisman Rd.	379OUT1	01/28/2011	Off	Outdoor	24	Primary	<0.020	<0.020	<0.055	0.12 J	<0.055	0.028	<0.013
<b>HVAC On</b>													
464 Ellis St.	464AMB1	8/27/2013	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464AMB3	8/27/2013	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464AMB4	8/27/2013	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464AMB5	8/27/2013	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14 J	<0.079	<0.11 J	<0.051
464 Ellis St.	464DUP1*	8/27/2013	On	Indoor	8	Duplicate	<0.081	<0.079	<0.079	<0.079	0.23 J	<0.12 J	<0.051
464 Ellis St.	4646AMB6	8/27/2013	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464PATH1	8/27/2013	On	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464HVAC1	8/27/2013	On	Outdoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464HVAC2	8/27/2013	On	Outdoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
<b>HVAC Off</b>													
464 Ellis St.	464AMB1	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	0.013 J	0.040 J	<0.055	0.200	<0.018
464 Ellis St.	464AMB1	8/30/2013	Off	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464AMB2	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.035 J	<0.055	0.040	<0.018
464 Ellis St.	464AMB3	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.041 J	<0.055	0.051	<0.018
464 Ellis St.	464AMB3	8/30/2013	Off	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464AMB4	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.043 J	<0.055	0.028 J	<0.018
464 Ellis St.	464AMB4	8/30/2013	Off	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464AMB5	8/30/2013	Off	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11 J	<0.051
464 Ellis St.	464DUP1*	8/30/2013	Off	Indoor	8	Duplicate	<0.081	<0.079	<0.079	<0.14	<0.079	0.11 J	<0.051
464 Ellis St.	4646AMB6	8/30/2013	Off	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
464 Ellis St.	464PATH1	8/30/2013	Off	Indoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	0.14	<0.051
464 Ellis St.	Outdoor Air	2/21/2010	Off	Outdoor	24	Primary	<0.032	<0.040	<0.055	0.039 J	<0.055	0.028 J	<0.018
464 Ellis St.	464OUT1	8/30/2013	Off	Outdoor	8	Primary	<0.081	<0.079	<0.079	<0.14	<0.079	<0.11	<0.051
<b>HVAC On</b>													
466 Ellis St.	466AMB1	5/3/2013	On	Indoor	8	Primary	< 0.14	< 0.067	< 0.13	< 0.23	< 0.67	0.28	< 0.043
466 Ellis St.	466AMB1	5/29/2013	On	Indoor	8	Primary	< 0.14	< 0.068	< 0.14	< 0.23	< 0.68	< 0.18	< 0.044
466 Ellis St.	466AMB3	5/3/2013	On	Indoor	8	Primary	< 0.13	< 0.065	< 0.13	< 0.22	< 0.65	0.43	< 0.042
466 Ellis St.	466DUP_01*	5/3/2013	On	Indoor	8	Duplicate	< 0.14	< 0.068	< 0.14	< 0.23	< 0.68	0.43	< 0.044
466 Ellis St.	466AMB3	5/29/2013	On	Indoor	8	Primary	< 0.14	< 0.068	< 0.14	< 0.23	< 0.68	< 0.18	< 0.044
466 Ellis St.	466DUP_01*	5/29/2013	On	Indoor	8	Duplicate	< 0.14	< 0.068	< 0.14	< 0.23	< 0.68	< 0.18	< 0.044
466 Ellis St.	466AMB5	5/3/2013	On	Indoor	8	Primary	< 0.14	< 0.068	< 0.14	< 0.23	< 0.68	1.1	< 0.044
466 Ellis St.	466AMB5	5/29/2013	On	Indoor	8	Primary	< 0.14	< 0.067	< 0.13	< 0.23	< 0.67	< 0.18	< 0.043

**TABLE 2**  
**AIR SAMPLING RESULTS 2013**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building	Location / Sample ID	Sample Date	Ventilation Status	Sample Purpose	Sample Duration (hours)	Sample Type	1,1-DCA	1,1-DCE	cis-1,2-DCE	PCE	trans-1,2-DCE	TCE	Vinyl chloride
<b>Site-Specific EPA Commercial Indoor Air Cleanup Level</b>							6	700	210	2	210	5	2
<b>HVAC On</b>													
466 Ellis St.	466AMB6	5/3/2013	On	Indoor	8	Primary	<0.13	<0.064	<0.13	<0.22	<0.64	1.0	<0.041
466 Ellis St.	466AMB6	5/29/2013	On	Indoor	8	Primary	<0.13	<0.064	<0.13	<0.22	<0.64	<0.17	<0.041
466 Ellis St.	466PATH1	5/3/2013	On	Indoor	8	Primary	<0.13	<0.066	<0.13	<0.22	<0.66	0.75	<0.042
466 Ellis St.	466PATH1	5/29/2013	On	Indoor	8	Primary	<0.14	<0.067	<0.13	<0.23	<0.67	<0.18	<0.043
466 Ellis St.	466HVAC1	5/3/2013	On	Outdoor	8	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.045
466 Ellis St.	466HVAC1	5/29/2013	On	Outdoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
<b>HVAC Off</b>													
466 Ellis St.	466AMB1	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.042 J	<0.055	0.020 J	<0.018
466 Ellis St.	466AMB1	5/6/2013	Off	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<b>11</b>	<0.044
466 Ellis St.	466AMB1	5/31/2013	Off	Indoor	8	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.045
466 Ellis St.	466AMB2	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.045 J	<0.055	0.025 J	<0.018
466 Ellis St.	466AMB3	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.170	<0.055	0.063	<0.018
466 Ellis St.	466AMB3	5/6/2013	Off	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<b>6.7</b>	<0.044
466 Ellis St.	466DUP_01*	5/6/2013	Off	Indoor	8	Duplicate	<0.14	<0.069	<0.14	<0.24	<0.69	<b>6.8</b>	<0.045
466 Ellis St.	466AMB3	5/31/2013	Off	Indoor	8	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.045
466 Ellis St.	466DUP_01	5/31/2013	Off	Indoor	8	Duplicate <sup>2</sup>	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
466 Ellis St.	466AMB4	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.650	<0.055	0.044	<0.018
466 Ellis St.	466AMB5	5/6/2013	Off	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<b>11</b>	<0.044
466 Ellis St.	466AMB5	5/31/2013	Off	Indoor	8	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.045
466 Ellis St.	466AMB6	5/6/2013	Off	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<b>14</b>	<0.044
466 Ellis St.	466AMB6	5/31/2013	Off	Indoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044
466 Ellis St.	466PATH1	2/21/2010	Off	Indoor	10	Primary	<0.032	<0.040	<0.055	0.040 J	<0.055	<0.038	<0.018
466 Ellis St.	466PATH1	5/6/2013	Off	Indoor	8	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	4.9	<0.045
466 Ellis St.	466PATH1	5/31/2013	Off	Indoor	8	Primary	<0.13	<0.065	<0.13	<0.22	<0.65	<0.18	<0.042
466 Ellis St.	466OUT1	2/20/2010	Off	Outdoor	24	Primary	<0.032	<0.040	<0.055	0.039 J	<0.055	0.030 J	<0.018
466 Ellis St.	466OUT1	5/6/2013	Off	Outdoor	8	Primary	<0.14	<0.069	<0.14	<0.24	<0.69	<0.19	<0.045
466 Ellis St.	466OUT1	5/31/2013	Off	Outdoor	8	Primary	<0.14	<0.068	<0.14	<0.23	<0.68	<0.18	<0.044

**Notes:**All units are micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

\* - denotes duplicate co-located sample

J - estimated result

&lt;0.020 - denotes result was below respective reporting limit

Bold denotes levels above the Site-Specific EPA Commercial Indoor Air Cleanup Level.

**TABLE 3**  
**VAPOR INTRUSION WORK SCHEDULE**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

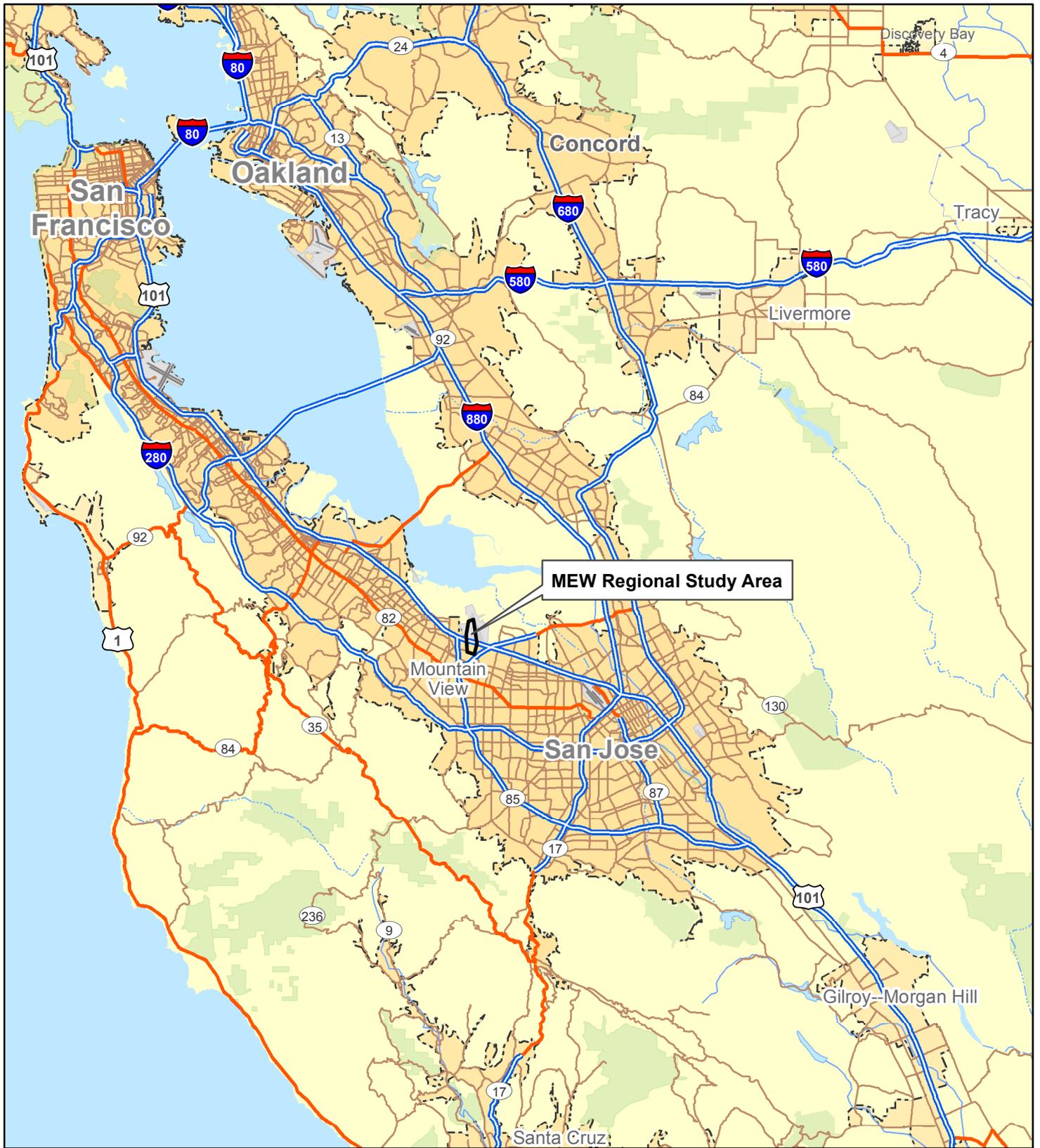
Building Address	Access Received	Site Walk Performed	Work Plan Submitted	Work Plan Implemented (90 days after EPA approval of Work Plan)	Report Submitted (90 days after completion of sampling)	Tier Designation	Long-Term Monitoring & Management Plan submitted (60 days after EPA notification of Tier 3A designation)	Pilot Test Work Plan Submitted (45 days after EPA notification)	Pilot Test Results Submitted (14 days after completion of Pilot Test)	Remedial/Voluntary Design Submitted (60 days after EPA notification or 60 days after submittal of Pilot Test results)	OM&M Plan Submitted (60 days after EPA approval of design)	Initiation of engineered control system construction (90 days after EPA approval of Remedial/Voluntary Design)	Response Action Implementation Report Submitted (60 days after implementation or 60 days after EPA notification)
<b>North Whisman Road</b>													
369 N. Whisman Rd.	10/29/2012	11/7/2012	11/19/2012; Approved 11/19/2012	11/21/2012, 11/23/2012, 12/29/2012, 1/1/2013, 1/22/2013	2/22/2013	Tier 2 (pending)	N/A	3/1/2013; Verbal approval 3/7/2013; Conditional written approval 3/25/2013	5/6/2013; Revision submitted 6/6/2013	7/3/2013; Conditional written approval 8/23/2013; Design Report Addendum #1 submitted 9/13/2013; Design Report Addendum #2 submitted 1/9/2014	10/21/2013	11/18/2013	Planned for August or September 2014 (approximate date)
379 N. Whisman Rd.	10/29/2012	11/7/2012	11/19/2012; Approved 11/19/2012	11/21/2012, 11/23/2012, 12/29/2012, 1/1/2013, 1/22/2013	2/22/2013	Tier 2 (pending)	N/A	3/1/2013; Verbal approval 3/7/2013; Conditional written approval 3/25/2013	5/6/2013; Revision submitted 6/6/2013	7/3/2013; Conditional written approval 8/23/2013; Design Report Addendum #1 submitted 9/13/2013; Design Report Addendum #2 submitted 1/9/2014	10/21/2013	12/9/2013	Planned for August or September 2014 (approximate date)
389 N. Whisman Rd.	10/29/2012	11/7/2012	11/19/2012; Approved 11/19/2012	11/21/2012, 11/23/2012	2/22/2013	Tier 3A (pending)	N/A	3/1/2013; Verbal approval 3/7/2013; Conditional written approval 3/25/2013	5/6/2013; Revision submitted 6/6/2013	Voluntary SSD system design report: 10/18/2013; Conditional written approval 11/27/2013; Design Report Addendum #1 submitted 1/9/2014	1/24/2014 for informational purposes only	12/16/2013	For informational purposes only: Planned for August or September 2014 (approximate date)
399 N. Whisman Rd.	10/29/2012	11/7/2012	11/19/2012; Approved 11/19/2012	11/21/2012, 11/23/2012	2/22/2013	Tier 3A (pending)	N/A	3/1/2013; Verbal approval 3/7/2013; Conditional written approval 3/25/2013	5/6/2013; Revision submitted 6/6/2013	Voluntary SSD system design report: 10/18/2013; Conditional written approval 11/27/2013; Design Report Addendum #1 submitted 1/9/2014	1/24/2014 for informational purposes only	12/16/2013	For informational purposes only: Planned for August or September 2014 (approximate date)
515 N. Whisman Rd.	Planned for 2014; within 30 days of EPA approval of Site-Wide Tiering Work Plan	Planned for 2014; within 10 days of Work Plan submittal	Planned for 2014; within 30 days of EPA approval of Site-Wide Tiering Work Plan	Planned for 2014; within 60 days after EPA approval of Supplemental Building-Specific Work Plan	Planned for 2014; within 90 days after completion of sampling	TBD (2014)	--	--	--	--	--	--	--
545 N. Whisman Rd.	Planned for 2014; within 30 days of EPA approval of Site-Wide Tiering Work Plan	Planned for 2014; within 10 days of Work Plan submittal	Planned for 2014; within 30 days of EPA approval of Site-Wide Tiering Work Plan	Planned for 2014; within 60 days after EPA approval of Supplemental Building-Specific Work Plan	Planned for 2014; within 90 days after completion of sampling	TBD (2014)	--	--	--	--	--	--	--

**TABLE 3**  
**VAPOR INTRUSION WORK SCHEDULE**  
**BUILDINGS LOCATED ON FORMER FAIRCHILD PROPERTIES, VAPOR INTRUSION STUDY AREA**  
**MOUNTAIN VIEW, CALIFORNIA**

Building Address	Access Received	Site Walk Performed	Work Plan Submitted	Work Plan Implemented (90 days after EPA approval of Work Plan)	Report Submitted (90 days after completion of sampling)	Tier Designation	Long-Term Monitoring & Management Plan submitted (60 days after EPA notification of Tier 3A designation)	Pilot Test Work Plan Submitted (45 days after EPA notification)	Pilot Test Results Submitted (14 days after completion of Pilot Test)	Remedial/Voluntary Design Submitted (60 days after EPA notification or 60 days after submittal of Pilot Test results)	OM&M Plan Submitted (60 days after EPA approval of design)	Initiation of engineered control system construction (90 days after EPA approval of Remedial/Voluntary Design)	Response Action Implementation Report Submitted (60 days after implementation or 60 days after EPA notification)
<b>National Avenue</b>													
401 National Ave.	2003	2003	4/16/2003	5/6/2003, 5/13/2003, 6/9/2003, 9/4/2003, 4/1/2004	Planned for 2014; within 30 days of EPA approval of Site-Wide Tiering Work Plan	Tier A (pending)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
644 National Ave.	2003	2003	4/16/2003	5/6/2003, 5/13/2003, 6/9/2003, 11/13/2003, 7/1/2004	Planned for 2014; within 30 days of EPA approval of Site-Wide Tiering Work Plan	Tier A (pending)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Ellis Street</b>													
464 Ellis St.	4/26/2013	8/26/2013	7/24/2013; Approved 8/26/2013; Revised 8/30/2013	8/27/2013, 8/30/2013	10/29/2013	Tier 3B (pending)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
466 Ellis St.	4/26/2013	5/1/2013	4/26/2013; Approved 5/1/2013	5/3/2013, 5/6/2013, 5/29/2013, 5/31/2013	7/3/2013	Tier 3B (pending)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
468 Ellis St.	10/29/2012	11/7/2012	11/19/2012; Approved 11/19/2012	11/21/2012, 11/23/2012	2/22/2013	Tier 3B (pending)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Fairchild Drive</b>													
313 Fairchild Dr.	8/24/2012	8/29/2012	8/30/2012; Approved 8/30/2012	9/3/2012, 9/6/2012	11/1/2012	TBD (2014)	--	--	--	--	--	--	--
323 Fairchild Dr.	8/24/2012	8/29/2012	8/30/2012; Approved 8/30/2012	9/3/2012, 9/6/2012	11/1/2012	TBD (2014)	--	--	--	--	--	--	--

**Notes:**  
 N/A = Not Applicable  
 TBD = To Be Determined  
 -- = Not applicable at this time but may change based on results of additional sampling to be conducted to assign a building tier.

# FIGURES



**Site Location Map**

Middlefield-Ellis-Whisman (MEW) Area  
Mountain View, California

**Geosyntec**  
consultants

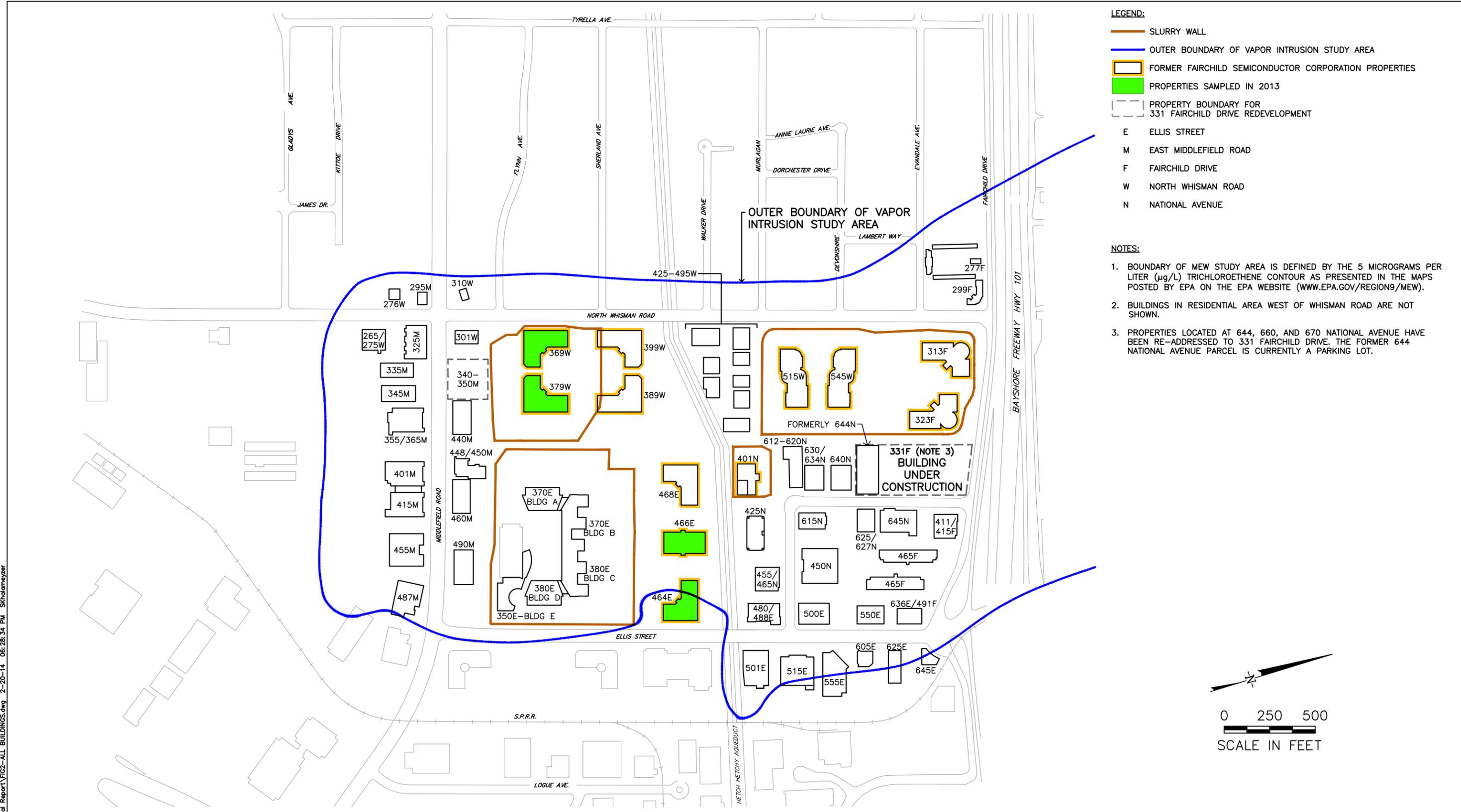
Figure

1

Oakland

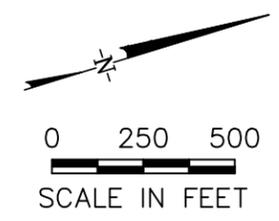
April 2014

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- LEGEND:**
- SLURRY WALL
  - OUTER BOUNDARY OF VAPOR INTRUSION STUDY AREA
  - FORMER FAIRCHILD SEMICONDUCTOR CORPORATION PROPERTIES
  - PROPERTIES SAMPLED IN 2013
  - PROPERTY BOUNDARY FOR 331 FAIRCHILD DRIVE REDEVELOPMENT
- E ELLIS STREET  
M EAST MIDDLEFIELD ROAD  
F FAIRCHILD DRIVE  
W NORTH WHISMAN ROAD  
N NATIONAL AVENUE

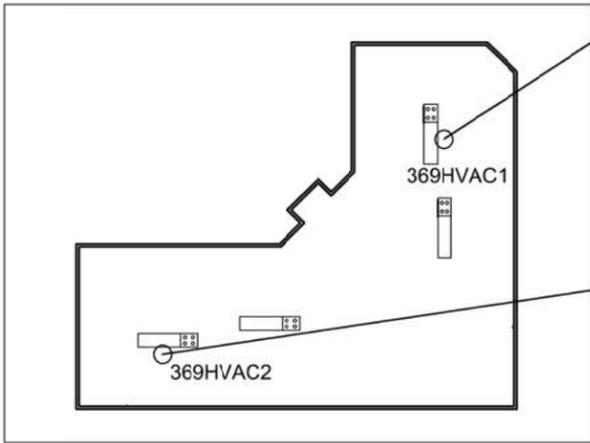
- NOTES:**
1. BOUNDARY OF MEW STUDY AREA IS DEFINED BY THE 5 MICROGRAMS PER LITER ( $\mu\text{g/L}$ ) TRICHLOROETHENE CONTOUR AS PRESENTED IN THE MAPS POSTED BY EPA ON THE EPA WEBSITE ([WWW.EPA.GOV/REGION9/MEW](http://WWW.EPA.GOV/REGION9/MEW)).
  2. BUILDINGS IN RESIDENTIAL AREA WEST OF WHISMAN ROAD ARE NOT SHOWN.
  3. PROPERTIES LOCATED AT 644, 660, AND 670 NATIONAL AVENUE HAVE BEEN RE-ADDRESSED TO 331 FAIRCHILD DRIVE. THE FORMER 644 NATIONAL AVENUE PARCEL IS CURRENTLY A PARKING LOT.



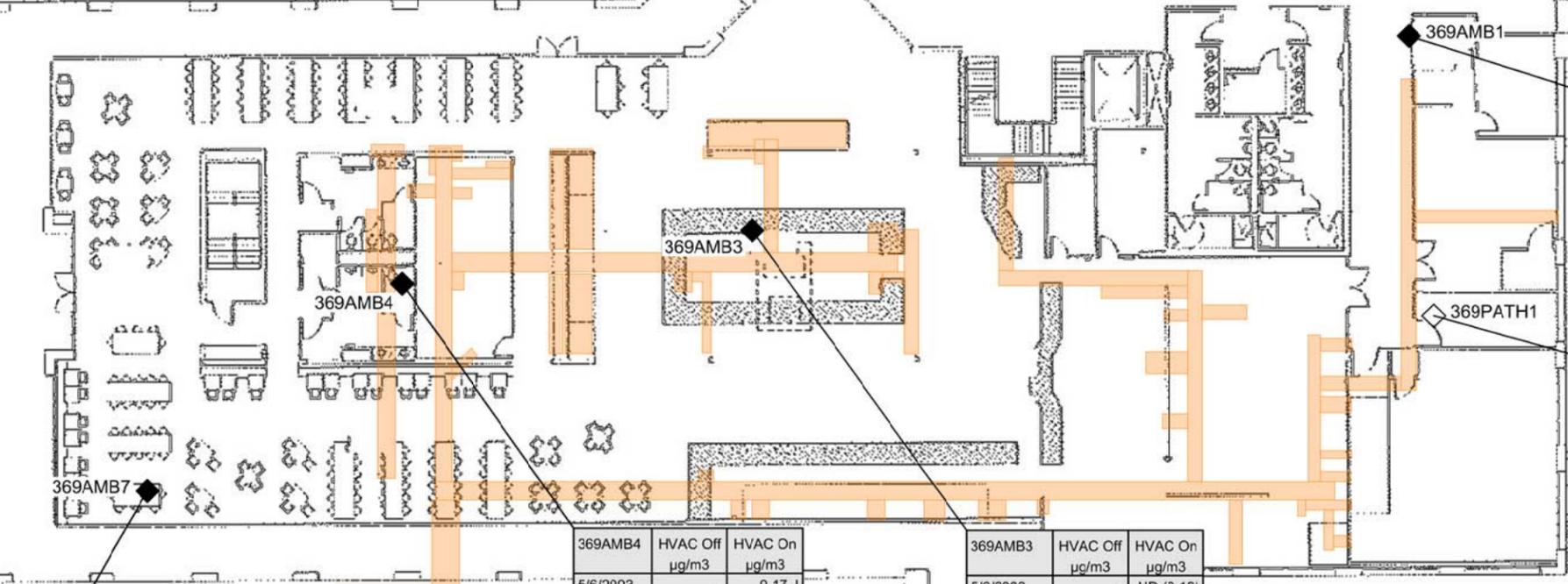
SOURCE: HALEY & ALDRICH, 2013, BUILDING-SPECIFIC INDOOR AIR SAMPLING REPORT: 369-399 NORTH WHISMAN ROAD AND 468 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA, FEBRUARY.

<b>Geosyntec</b> consultants	
LOCATION OF FORMER FAIRCHILD PROPERTIES VAPOR INTRUSION STUDY AREA  MOUNTAIN VIEW, CALIFORNIA	FIGURE NO. 2 PROJECT NO. WR1133B DATE: APRIL 2014

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APPROXIMATE LOCATION OF HVAC SYSTEM



- LEGEND:**
- ◆ INDOOR AIR SAMPLING LOCATION
  - ◇ PATHWAY AIR SAMPLING LOCATION
  - OUTDOOR AIR SAMPLING LOCATION
  - ▬ UTILITY TRENCH (2012)

- NOTES:**
1. THIS FIGURE IS BASED ON IMAGES OF THE BUILDING PROVIDED BY DEVCON.
  2. ALL LOCATIONS ARE APPROXIMATE.
  3. CHEMICAL CONCENTRATIONS IN MICROGRAMS PER CUBIC METER ( $\mu\text{g}/\text{m}^3$ ).
  4. ND DENOTES CHEMICAL WAS NOT DETECTED AT THE LEVEL SHOWN.
  5. J: ESTIMATED RESULT.

369HVAC1	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	ND (0.19)
5/13/2003	ND (0.18)
6/29/2010	0.16
11/21/2012	0.029
12/29/2012	ND (0.11)
1/22/2013	ND (0.17)

369HVAC2	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	ND (0.19)
5/13/2003	ND (0.19)

369AMB2	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	-	ND (0.17)
5/13/2003	-	ND (0.18)
10/2/2003	-	0.33
10/7/2003	-	0.28
3/14/2010	1.9	-
6/30/2010	-	2.8

369AMB5	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
3/14/2010	2.4	-
6/30/2010	-	2.7
11/21/2012	-	1.4
11/23/2012	13	-
12/29/2012	-	6.4
1/1/2013	5.2	-
1/22/2013	-	ND (0.18)

369DUP1	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
11/21/2012	-	1.5
11/23/2012	12	-

369AMB6	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
11/21/2012	-	1.6
11/23/2012	36	-
12/29/2012	-	5.8
1/1/2013	30	-
1/22/2013	-	ND (0.17)

369AMB8	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
11/21/2012	-	1.4
11/23/2012	6.2	-
12/29/2012	-	6.2
1/1/2013	5.6	-
1/22/2013	-	ND (0.18)

369-399OUT1	HVAC Off $\mu\text{g}/\text{m}^3$
11/23/2012	ND (0.026)

369OUT1	HVAC Off $\mu\text{g}/\text{m}^3$
3/13/2010	0.071

369PATH2	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
3/14/2010	2.2	-
6/30/2010	-	2.0

EXAMPLE DATABOX

SAMPLE LOCATION NAME	HVAC STATUS		SAMPLE UNITS
	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$	
369AMB1	5/6/2003	ND (0.19)	ANALYTE CONCENTRATIONS
	5/13/2003	ND (0.19)	
	10/2/2003	0.53	
	10/7/2003	1.6	
	3/14/2010	4.3	
	6/30/2010	3	

369AMB1	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	-	ND (0.19)
5/13/2003	-	ND (0.19)
10/2/2003	-	0.53
10/7/2003	-	1.6
3/14/2010	4.3	-
6/30/2010	-	3.0

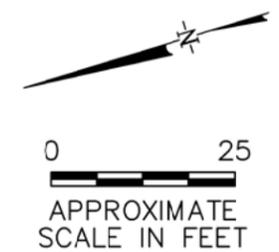
369PATH1	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	ND (0.19)
5/13/2003	ND (0.19)

369AMB4	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	-	0.17 J
5/13/2003	-	ND (0.18)
10/2/2003	-	0.67
10/7/2003	-	0.32
3/14/2010	2.3	-
6/30/2010	-	1.9

369AMB3	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
5/6/2003	-	ND (0.19)
5/13/2003	-	ND (0.19)
10/2/2003	-	0.41
10/7/2003	-	0.33
3/14/2010	3.4	-
6/30/2010	-	2.2
11/21/2012	-	0.14
11/23/2012	3.1	-
12/29/2012	-	0.13
1/1/2013	4.9	-
1/22/2013	-	ND (0.18)

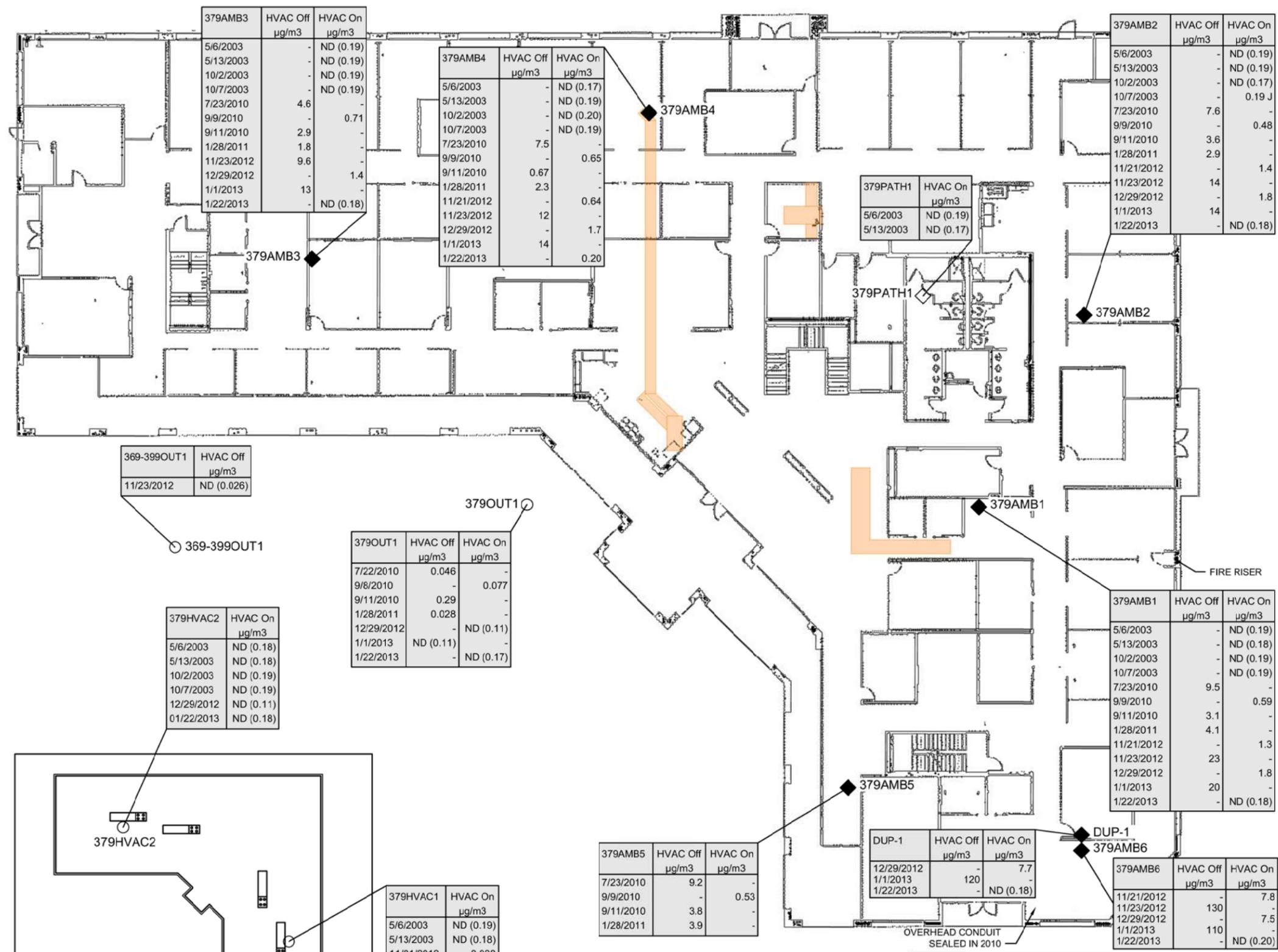
369AMB7	HVAC Off $\mu\text{g}/\text{m}^3$	HVAC On $\mu\text{g}/\text{m}^3$
11/21/2012	-	0.095
11/23/2012	3.3	-
12/29/2012	-	0.15
1/1/2013	5.7	-
1/22/2013	-	ND (0.15)

SOURCE: HALEY & ALDRICH, 2013, BUILDING-SPECIFIC INDOOR AIR SAMPLING REPORT: 369-399 NORTH WHISMAN ROAD AND 468 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA, FEBRUARY.



Geosyntec <sup>®</sup> consultants	
LOCATION OF AIR SAMPLES AND TCE CONCENTRATIONS	FIGURE NO. 3
369 NORTH WHISMAN ROAD MOUNTAIN VIEW, CALIFORNIA	PROJECT NO. WR1133B
	DATE: APRIL 2014

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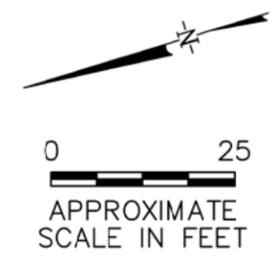


- LEGEND:**
- ◆ INDOOR AIR SAMPLING LOCATION
  - ◇ PATHWAY AIR SAMPLING LOCATION
  - OUTDOOR AIR SAMPLING LOCATION
  - ▬ UTILITY TRENCH (2012)

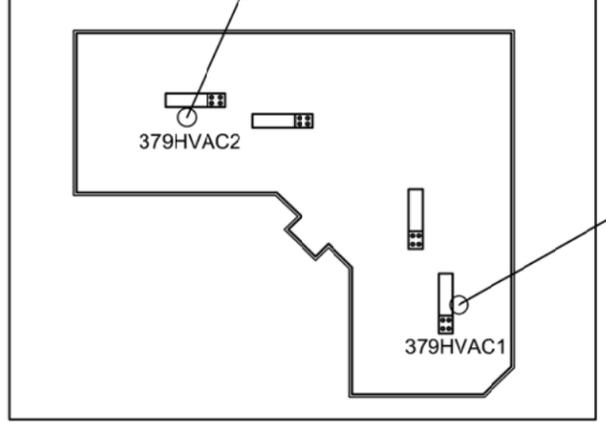
- NOTES:**
1. THIS FIGURE IS BASED ON IMAGES OF THE BUILDING PROVIDED BY DEVCON.
  2. ALL LOCATIONS ARE APPROXIMATE.
  3. CHEMICAL CONCENTRATIONS IN MICROGRAMS PER CUBIC METER ( $\mu\text{g}/\text{m}^3$ ).
  4. ND DENOTES CHEMICAL WAS NOT DETECTED AT THE LEVEL SHOWN.
  5. J: ESTIMATED RESULT.

**EXAMPLE DATABOX**

SAMPLE LOCATION NAME		HVAC STATUS		SAMPLE UNITS	
		HVAC Off	HVAC On	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
SAMPLE COLLECTION DATE	379AMB1	-	-	-	-
	5/6/2003	-	-	ND (0.19)	-
	5/13/2003	-	-	ND (0.19)	-
	10/2/2003	-	-	-	0.53
	10/7/2003	-	-	-	1.6
				ANALYTE CONCENTRATIONS	
	3/14/2010	4.3	-	-	-
	6/30/2010	-	-	-	3



**APPROXIMATE LOCATION OF HVAC SYSTEM**

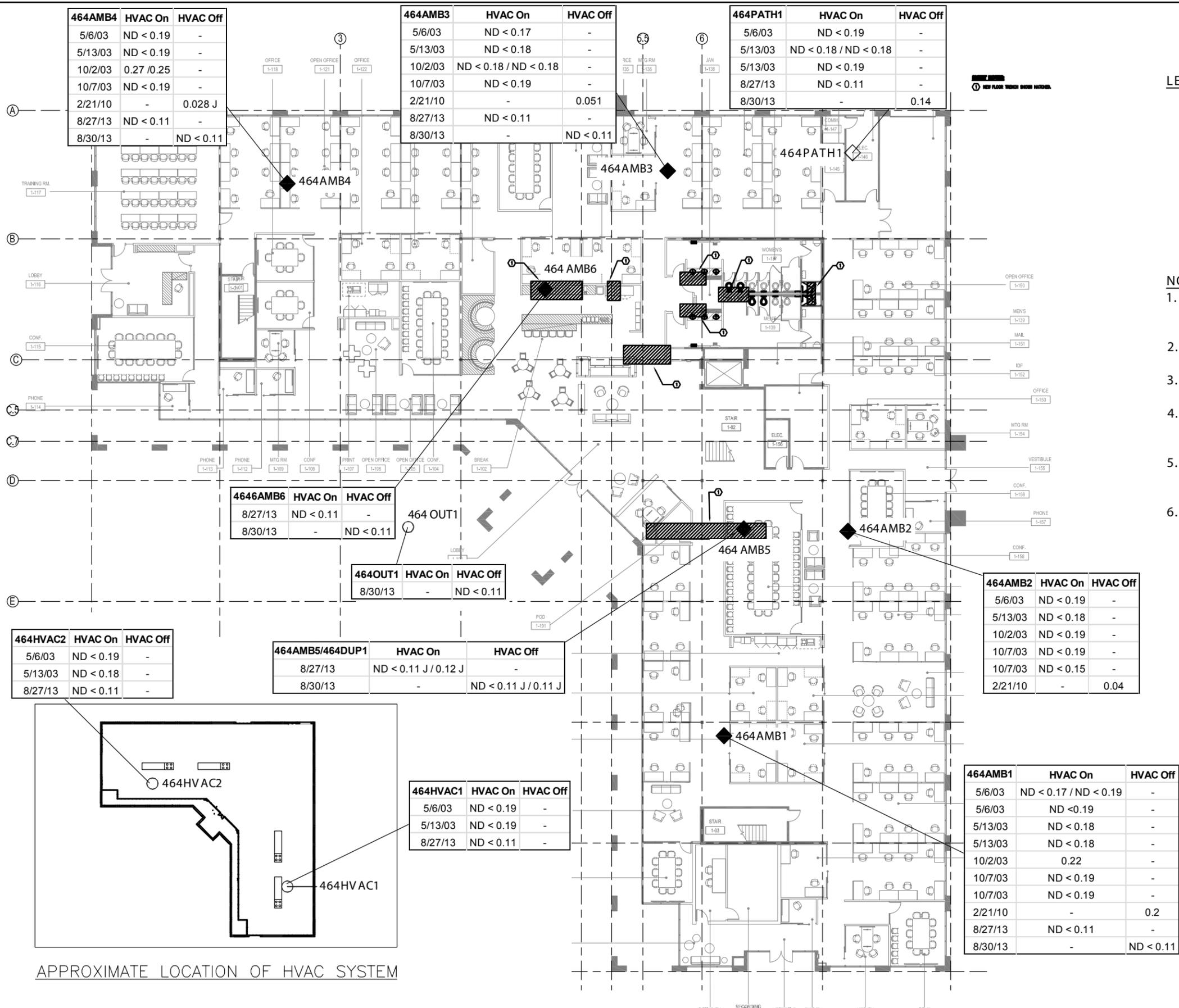


SOURCE: HALEY & ALDRICH, 2013, BUILDING-SPECIFIC INDOOR AIR SAMPLING REPORT: 369-399 NORTH WHISMAN ROAD AND 468 ELLIS STREET, MOUNTAIN VIEW, CALIFORNIA, FEBRUARY.

**LOCATION OF AIR SAMPLES AND TCE CONCENTRATIONS**

379 NORTH WHISMAN ROAD  
MOUNTAIN VIEW, CALIFORNIA

<b>Geosyntec</b> consultants	
FIGURE NO.	4
PROJECT NO.	WR1133B
DATE:	APRIL 2014

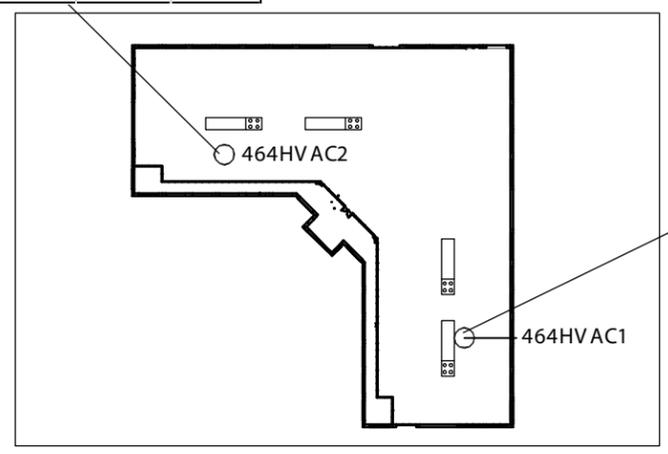
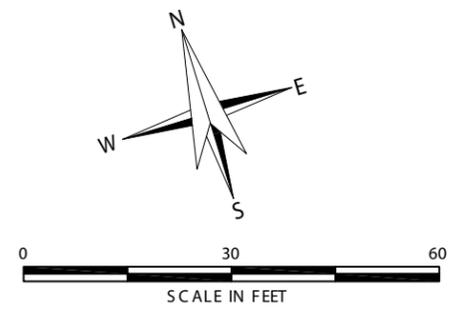


**LEGEND:**

- ◆ INDOOR AIR SAMPLING LOCATION
- ◇ PATHWAY AIR SAMPLING LOCATION
- OUTDOOR AIR SAMPLING LOCATION
- ▨ FLOOR UTILITY TRENCH, 2013

**NOTES:**

1. THIS FIGURE IS BASED ON AN IMAGE OF THE BUILDING PROVIDED BY DEVCON.
2. ALL LOCATIONS ARE APPROXIMATE.
3. TCE = TRICHLOROETHENE.
4. TCE CONCENTRATIONS IN MICROGRAMS PER CUBIC METER (ug/m<sup>3</sup>).
5. ND DENOTES TCE WAS NOT DETECTED AT THE LEVEL SHOWN, J DENOTES AN ESTIMATED VALUE.
6. AFTER-HOUR INDOOR SAMPLES WERE COLLECTED ON 21 FEBRUARY 2010 FROM 8:00AM UNTIL 21 FEBRUARY 2010 AT 6:00PM. ALL OTHER SAMPLES WERE COLLECTED DURING NORMAL OCCUPANCY HOURS.



464AMB4	HVAC On	HVAC Off
5/6/03	ND < 0.19	-
5/13/03	ND < 0.19	-
10/2/03	0.27 / 0.25	-
10/7/03	ND < 0.19	-
2/21/10	-	0.028 J
8/27/13	ND < 0.11	-
8/30/13	-	ND < 0.11

464AMB3	HVAC On	HVAC Off
5/6/03	ND < 0.17	-
5/13/03	ND < 0.18	-
10/2/03	ND < 0.18 / ND < 0.18	-
10/7/03	ND < 0.19	-
2/21/10	-	0.051
8/27/13	ND < 0.11	-
8/30/13	-	ND < 0.11

464PATH1	HVAC On	HVAC Off
5/6/03	ND < 0.19	-
5/13/03	ND < 0.18 / ND < 0.18	-
5/13/03	ND < 0.19	-
8/27/13	ND < 0.11	-
8/30/13	-	0.14

464AMB6	HVAC On	HVAC Off
8/27/13	ND < 0.11	-
8/30/13	-	ND < 0.11

464OUT1	HVAC On	HVAC Off
8/30/13	-	ND < 0.11

464HVAC2	HVAC On	HVAC Off
5/6/03	ND < 0.19	-
5/13/03	ND < 0.18	-
8/27/13	ND < 0.11	-

464AMB5/464DUP1	HVAC On	HVAC Off
8/27/13	ND < 0.11 J / 0.12 J	-
8/30/13	-	ND < 0.11 J / 0.11 J

464HVAC1	HVAC On	HVAC Off
5/6/03	ND < 0.19	-
5/13/03	ND < 0.19	-
8/27/13	ND < 0.11	-

464AMB2	HVAC On	HVAC Off
5/6/03	ND < 0.19	-
5/13/03	ND < 0.18	-
10/2/03	ND < 0.19	-
10/7/03	ND < 0.19	-
10/7/03	ND < 0.15	-
2/21/10	-	0.04

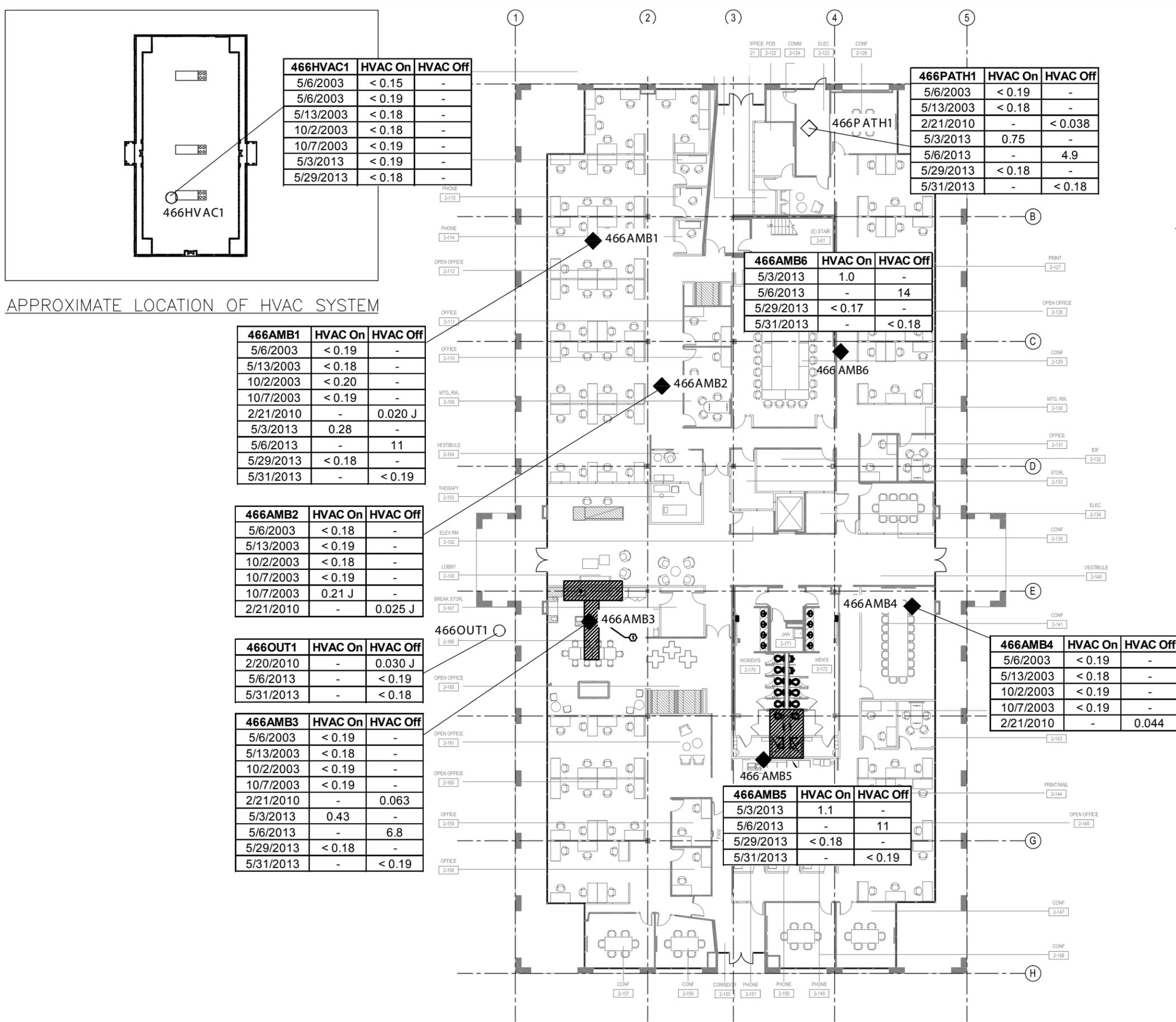
464AMB1	HVAC On	HVAC Off
5/6/03	ND < 0.17 / ND < 0.19	-
5/6/03	ND < 0.19	-
5/13/03	ND < 0.18	-
5/13/03	ND < 0.18	-
10/2/03	0.22	-
10/7/03	ND < 0.19	-
10/7/03	ND < 0.19	-
2/21/10	-	0.2
8/27/13	ND < 0.11	-
8/30/13	-	ND < 0.11

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**LOCATION OF AIR SAMPLES AND TCE CONCENTRATIONS - 464 ELLIS STREET**

SCALE: AS SHOWN  
 April 2014

**FIGURE 5**



466HVAC1	HVAC On	HVAC Off
5/6/2003	< 0.15	-
5/6/2003	< 0.19	-
5/13/2003	< 0.18	-
10/2/2003	< 0.18	-
10/7/2003	< 0.19	-
5/3/2013	< 0.19	-
5/29/2013	< 0.18	-

466PATH1	HVAC On	HVAC Off
5/6/2003	< 0.19	-
5/13/2003	< 0.18	-
2/21/2010	-	< 0.038
5/3/2013	0.75	-
5/6/2013	-	4.9
5/29/2013	< 0.18	-
5/31/2013	-	< 0.18

466AMB6	HVAC On	HVAC Off
5/3/2013	1.0	-
5/6/2013	-	14
5/29/2013	< 0.17	-
5/31/2013	-	< 0.18

466AMB1	HVAC On	HVAC Off
5/6/2003	< 0.19	-
5/13/2003	< 0.18	-
10/2/2003	< 0.20	-
10/7/2003	< 0.19	-
2/21/2010	-	0.020 J
5/3/2013	0.28	-
5/6/2013	-	11
5/29/2013	< 0.18	-
5/31/2013	-	< 0.19

466AMB2	HVAC On	HVAC Off
5/6/2003	< 0.18	-
5/13/2003	< 0.19	-
10/2/2003	< 0.18	-
10/7/2003	< 0.19	-
10/7/2003	0.21 J	-
2/21/2010	-	0.025 J

466OUT1	HVAC On	HVAC Off
2/20/2010	-	0.030 J
5/6/2013	-	< 0.19
5/31/2013	-	< 0.18

466AMB3	HVAC On	HVAC Off
5/6/2003	< 0.19	-
5/13/2003	< 0.18	-
10/2/2003	< 0.19	-
10/7/2003	< 0.19	-
2/21/2010	-	0.063
5/3/2013	0.43	-
5/6/2013	-	6.8
5/29/2013	< 0.18	-
5/31/2013	-	< 0.19

466AMB4	HVAC On	HVAC Off
5/6/2003	< 0.19	-
5/13/2003	< 0.18	-
10/2/2003	< 0.19	-
10/7/2003	< 0.19	-
2/21/2010	-	0.044

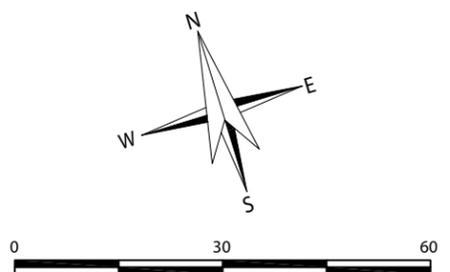
466AMB5	HVAC On	HVAC Off
5/3/2013	1.1	-
5/6/2013	-	11
5/29/2013	< 0.18	-
5/31/2013	-	< 0.19

**LEGEND:**

- ◆ INDOOR AIR SAMPLING LOCATION
- ◇ PATHWAY AIR SAMPLING LOCATION
- OUTDOOR AIR SAMPLING LOCATION
- ▨ FLOOR UTILITY TRENCH, 2013

**NOTES:**

1. THIS FIGURE IS BASED ON AN IMAGE OF THE BUILDING PROVIDED BY DEVCON.
2. ALL LOCATIONS ARE APPROXIMATE.
3. TCE = TRICHLOROETHENE.
4. TCE CONCENTRATIONS IN MICROGRAMS PER CUBIC METER (ug/m<sup>3</sup>).
5. J DENOTES AN ESTIMATED VALUE.
6. AFTER-HOUR INDOOR SAMPLES WERE COLLECTED ON 21 FEBRUARY 2010 FROM 8:00AM UNTIL 6:00PM. OUTDOOR AIR SAMPLE 466OUT1 WAS COLLECTED ON 20 FEBRUARY 2010 FROM 6:00PM UNTIL 21 FEBRUARY 2010 AT 6:00PM ALL OTHER SAMPLES WERE COLLECTED DURING NORMAL OCCUPANCY HOURS.
7. AN INDOOR SOURCE OF TCE WAS IDENTIFIED UPON COMPLETION OF THE 3 MAY 2013 AND 6 MAY 2013 SAMPLING EVENTS. AS A RESULT, RESAMPLING WAS PERFORMED ON 29 MAY 2013 AND 31 MAY 2013 AFTER THE INDOOR AIR SOURCE OF TCE WAS REMOVED.



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**FIGURE 6**