# 2014 Annual Groundwater Self-Monitoring Report for California-Olive-Emerson (COE) Study Area and Perimeter Area

Prepared for:
Hewlett-Packard Company
and
Varian Medical Systems, Inc.

Prepared by:
Stantec Consulting Services Inc.
15575 Los Gatos Blvd., Bldg. C
Los Gatos CA 95032-2569
Tel: (408) 356-6124

September 30, 2014

Hewlett-Packard Company
3404 East Harmony Road
Mail Stop 13
Fort Collins, CO 80528
USA

hp.com

September 30, 2014

Mr. Roger Papler
California Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

**Paul E. Paschke**
Environmental Program Manager
Tel +1 970 898 0573
Fax +1 970 778 4192
paul.paschke@hp.com

Subject: Transmittal of Annual Groundwater Self-Monitoring Report for 2014, California-Olive-Emerson (COE) Study Area and Perimeter Area, Palo Alto, California

Dear Mr. Papler,

Hewlett-Packard Company and Varian Medical Systems, Inc. are submitting the attached "Annual Groundwater Self-Monitoring Report" for 2014 (September 2013 through August 2014), for the California-Olive-Emerson (COE) Study Area and Perimeter Area, Palo Alto, California. This document is submitted in accordance with the San Francisco Regional Water Quality Control Board (RWQCB) Site Cleanup Requirements, Order 94-130 (the "Order"), dated September 21, 1994, as revised by the Self-Monitoring Program dated May 4, 2001.

To the best of our knowledge, the contents of this report are true and correct.

Please call if you have any questions regarding this report.

Sincerely,

HEWLETT-PACKARD COMPANY

Paul E Paschke

Digitally signed by Paul E Paschke
DN: o=Hewlett-Packard Company, ou=VPN-WEB-H, cn=Paul E Paschke, email=paul.paschke@hp.com
Date: 2014.09.29 08:38:06 -06'00'

Paul E. Paschke
Environmental Program Manager

VARIAN MEDICAL SYSTEMS, INC.

John Buchanan
Manager, Environmental Affairs

Enclosure: Annual Groundwater Self-Monitoring Report for 2014, California-Olive-Emerson (COE) Study Area and Perimeter Area

cc: Mailing List (Attached)

September 30, 2013

Subject: Transmittal of Annual Groundwater Self-Monitoring Report for 2013, California-Olive-Emerson (COE) Study Area and Perimeter Area, Palo Alto, California

COE SITE MAILING LIST

*Full Report*: *All reports were transmitted electronically with the exception of Boyd Smith.*

Douglas Moran
Barron Park Association
790 Matadero Avenue
Palo Alto, CA 94306-2734

Annette Walton
Associate Director
Environmental Management
Stanford Real Estate Office
3160 Porter Drive, Suite 200
Palo Alto, CA 94304

Melanie Morash
Region IX Superfund Program – USEPA
75 Hawthorne Street
San Francisco, CA 94105

Boyd Smith
WSJ Properties
3201 Ash Street
Palo Alto, CA 94306

Barbara Cook
California EPA
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Ron Scholtz
Intevac
3550 Bassett Street
Santa Clara, CA 95054

Hazardous Materials Inspector
City of Palo Alto Fire Department
250 Hamilton Avenue
Palo Alto, CA 94301

Joseph Langdon
US Geological Survey Library
345 Middlefield Road, Mail Stop 955
Menlo Park, CA 94025

Ron Jackson
Manager, Roads and Engineering
County of Santa Clara Transportation
1505 Schallenberger Road
San Jose, CA 95131

## Limitations and Certifications

This report was prepared in accordance with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of Hewlett-Packard Company, Varian Medical Systems, and the California Regional Water Quality Control Board San Francisco Bay Region (RWQCB). Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

**Prepared by:**

Digitally signed by Wendy Chen
DN: cn=Wendy Chen, o=Stantec, ou=Stantec Consulting Services Inc., email=wendy.chen@stantec.com, c=US
Date: 2014.09.26 13:50:58 -07'00'

Wendy Chen
Associate Scientist

**Reviewed by:**

Bruce E. Scarbrough, P.G. #4931
Principal Geologist

All information, conclusions, and recommendations provided by Stantec in this document regarding the Site have been prepared under the supervision of and reviewed by the Licensed Professional whose signature appears below:

**Licensed Approver:**

**Name:** **Bruce Scarbrough**
**Signature:**

**Date:**
**Stamp:**

PROFESSIONAL GEOLOGIST
BRUCE SCARBROUGH
No. 4931
Exp. 10/15
STATE OF CALIFORNIA

Stantec

# Table of Contents

**LIST OF ATTACHMENTS** ..... **II**

**LIST OF ACRONYMS** ..... **III**

**1.0 INTRODUCTION** ..... **1**

**2.0 SITE STATUS REPORT** ..... **2**
2.1 OPERATION AND MAINTENANCE OF THE REMEDIAL SYSTEMS ..... 2
2.1.1 640 Page Mill Road Soil Vapor Extraction and Treatment System ..... 2
2.1.2 640 Page Mill Road/COE Groundwater Extraction and Treatment System ..... 2
2.1.3 395 Page Mill Road Area X Dual Phase Extraction and Treatment System ..... 4
2.1.4 601 California Groundwater Extraction and Treatment System ..... 4
2.1.5 COE Perimeter Area Groundwater Extraction Wells ..... 4
2.2 OTHER WORK COMPLETED DURING THE REPORTING PERIOD ..... 5
2.2.1 640 Page Mill Road Site/COE Off-Site Area ..... 5
2.2.2 395 Page Mill Road Site ..... 5
2.2.3 601 California Site ..... 5
2.3 WORK TO BE CONDUCTED DURING THE NEXT REPORTING PERIOD ..... 6

**3.0 GROUNDWATER MONITORING** ..... **7**
3.1 GROUNDWATER ELEVATION MONITORING ..... 7
3.2 GROUNDWATER QUALITY MONITORING ACTIVITIES ..... 7
3.3 QUALITY ASSURANCE / QUALITY CONTROL MEASURES ..... 9
3.4 GROUNDWATER QUALITY MONITORING RESULTS ..... 10
3.4.1 Identification of Significant Increases – Methodology ..... 10
3.4.2 Identification of Significant Increases – Results ..... 10

# List of Attachments

## LIST OF TABLES

Table 1 Summary of 640 Page Mill Road COE GWET System Flow Data
Table 2 Summary of Extraction Wells EW-15 and EW-16 Flow Data
Table 3 Summary of Groundwater Elevations – Second Quarter 2014
Table 4 Self-Monitoring Program Sampling and Analysis Schedule
Table 5 Summary of Groundwater Quality Sampling Activities – June 2014
Table 6 Groundwater Purging and Sampling Records – June 2014
Table 7 Passive Diffusion Bag Sampler Deployment Depths – June 2014
Table 8 Groundwater Sample Collection QA/QC Results – June 2014
Table 9 Groundwater Sample Chemical Analysis QA/QC Results – June 2014
Table 10 Summary of Compounds Detected in Groundwater – June 2014
Table 11 Summary of Significant Increases – June 2014

## LIST OF FIGURES

Figure 1 Site Location Map
Figure 2 Well Location Map
Figure 3 Groundwater Elevation Contours - First Encountered Groundwater – June 10, 2014
Figure 4 Groundwater Elevation Contours - A1 Zone – June 10, 2014
Figure 5 Groundwater Elevation Contours - A2 Zone – June 10, 2014
Figure 6 Groundwater Elevation Contours - B Zone – June 10, 2014
Figure 7 TCE Concentration Contours – First Encountered Groundwater – Second Quarter 2014
Figure 8 PCE Concentration Contours – First Encountered Groundwater – Second Quarter 2014
Figure 9 TCE Concentration Contours – A1 Zone – Second Quarter 2014
Figure 10 PCE Concentration Contours – A1 Zone – Second Quarter 2014
Figure 11 TCE Concentration Contours – A2 Zone – Second Quarter 2014
Figure 12 PCE Concentration Contours – A2 Zone – Second Quarter 2014

Note: Tables and Figures appear at the end of report.

## LIST OF APPENDICES

Appendix A Annual GWET System VOC Mass Removal by Site
Appendix B Selected Compounds from Historical Records

## List of Acronyms

| | |
|---|---|
| ADOP | Advanced Oxidation Process |
| *cis*-1,2-DCE | *cis*-1,2-dichloroethylene |
| COE | California-Olive-Emerson |
| DCA | dichloroethane |
| DCB | dichlorobenzene |
| DCE | dichloroethlene |
| DPE | Dual-Phase Extraction |
| EISB | Enhanced *In-Situ* Bioremediation |
| EPA | U.S. Environmental Protection Agency |
| EVO | Emulsified Vegetable Oil |
| FEG | First Encountered Groundwater |
| GAC | Granular Activated Carbon |
| gpm | Gallons per minute |
| GWET | Groundwater Extraction and Treatment |
| HP | Hewlett-Packard Company |
| ISCO | *in situ* chemical oxidation |
| lbs/day | pounds per day |
| MCL | Maximum Contaminant Level |
| MS/MSD | Matrix Spike/Matrix Spike Duplicate |
| µg/L | micrograms per liter |
| NPDES | National Pollutant Discharge Elimination System |
| OEU | Oregon Expressway Underpass |
| PAPWD | Palo Alto Public Works Department |
| PCE | Tetrachloroethene |
| PDBS | Passive Diffusive Bag Sampler |
| QA/QC | Quality Assurance/Quality Control |
| RWQCB | Regional Water Quality Control Board |
| SMP | Self-Monitoring Program |
| Stantec | Stantec Consulting Services, Inc. |
| SVET | Soil Vapor Extraction and Treatment |
| TCA | Trichloroethane |
| TCB | Trichlorobenzene |
| TCE | Trichloroethene |
| TestAmerica | TestAmerica Laboratories, Incorporated |
| *trans*-1,2-DCE | *trans*-1,2-dichloroethylene |
| VMS | Varian Medical Systems, Inc. |
| VC | Vinyl Chloride |
| VOC | Volatile Organic Compound |

# 1.0 Introduction

This "2014 Annual Groundwater Self-Monitoring Report for California-Olive-Emerson (COE) Study Area and Perimeter Area" (September 2013 through August 2014) has been prepared on behalf of Hewlett-Packard Company (HP) and Varian Medical Systems, Inc. (VMS), by Stantec Consulting Services Inc. (Stantec), for the COE Study Area and Perimeter Area, Palo Alto, California (hereinafter referred to as the "Site" and shown on Figure 1). This document is submitted in accordance with the San Francisco Regional Water Quality Control Board (RWQCB) Site Cleanup Requirements, Order 94-130, dated September 21, 1994, as revised by the Self-Monitoring Program (SMP) dated May 4, 2001.

This Report:

- Summarizes work completed during the current reporting period (September 2013 through August 2014), and tasks anticipated to be completed during the next reporting period (September 2014 through August 2015 Section 2.0); and,
- Presents the results of groundwater monitoring activities conducted during the current reporting period (Section 3.0).

# 2.0 Site Status Report

This section details the work performed (with the exception of groundwater monitoring) during the current reporting period and describes work anticipated to be completed during the next reporting period. Groundwater monitoring conducted during the reporting period is discussed in Section 3.0.

## 2.1 OPERATION AND MAINTENANCE OF THE REMEDIAL SYSTEMS

### 2.1.1 640 Page Mill Road Soil Vapor Extraction and Treatment System

Throughout this reporting period the soil vapor extraction and treatment (SVET) system was not operated. Based on groundwater levels in groundwater monitoring wells in the area of the SVET system, the soil surrounding the intermediate depth and deep SVE wells was fully or partially saturated.

### 2.1.2 640 Page Mill Road/COE Groundwater Extraction and Treatment System

Groundwater was extracted from three of the five 640 Page Mill Road/COE groundwater extraction and treatment (GWET) system extraction wells (EW-7, EW-8, and EW-10) from September 1 until October 14, 2013. Each of these three wells are screened across the A1 zone. During this period, well EW-7 operated at an average pumping rate of approximately 12 gallons per minute (gpm); well EW-8 operated at an average pumping rate of about 14 gpm; and, EW-10 operated at an average pumping rate of about 8 gpm.

On October 14, 2013, the GWET system was shut down to enhance the extraction system and retrofit and improve treatment system efficiency and reliability. Specifically, the following activities were completed during the shutdown.

- New extraction wells TW-1 and TW-2 were connected to the treatment system. These two new extraction wells were installed to pump groundwater from the on-Site area with the highest residual volatile organic compound (VOC) concentrations in the A1 (TW-1) and A2 (TW-2) zones, replacing existing pumping well EW-7.

- The groundwater treatment system was upgraded to increase treatment capacity and additional treatment methods and equipment.

The GWET system was restarted on January 6, 2014 extracting groundwater from EW-8, EW-10, TW-1, and TW-2. Well EW-8 operated throughout the remainder of the reporting period at an average pumping rate of 8 gpm; EW-10 operated at an average pumping rate of 8 gpm; TW-1 operated at an average pumping rate of 9 gpm; and TW-2 operated at an average pumping rate of 23 gpm.

During September and October 2013 (prior to system upgrades) extracted groundwater was treated using ozone and granular activated carbon (GAC) adsorption. From January through August 2014 (after system upgrades) extracted groundwater was treated using advanced oxidation process (ADOP) which consists of ozone and hydrogen peroxide pre-treatment and GAC as a polish.

Treated groundwater was discharged to Matadero Creek via the City of Palo Alto storm drain system pursuant to the requirements of RWQCB Order No. R2-2009-0059 (National Pollutant Discharge Elimination System [NPDES] Permit No. CAG912003, the VOC General Permit) issued to HP on October 1, 2009. Notice of Coverage Under the Requirements of Order No. R2-2009-0059 was issued to HP on November 25, 2009. Periodically (e.g., during GAC change-outs) treated groundwater was discharged instead to the sanitary sewer under Groundwater Discharge Permit No. 061238 issued by the Palo Alto Public Works Department (PAPWD).

The GWET system operated from September 2013 through August 2014, except for the Water Board approved shut down discussed above and periodic maintenance including carbon change outs. Carbon change outs took place on November 2, 2013, April 5, 2014, May 10, 2014 and July 12, 2014. Shut downs that lasted for more than one day are described below.

- On October 14, 2013, the GWET system was shut down to connect two new extraction wells (TW-1 and TW-2) to the existing conveyance piping and upgrade the existing pre-treatment system to increase destruction efficiency prior to the GAC. The system was restarted on January 6, 2014.

- On January 27, 2014, the system was shut down waiting for hydrogen peroxide delivery; the system was restarted on January 30, 2014.

- On August 16, 2014, the GWET system was shut down due to compressor failure. Repairs were completed and the system was restarted on August 18, 2014.

Table 1 presents flow volumes and average flow rates for each extraction well and the entire extraction system during the current reporting period. Estimated total VOC mass removal and VOC mass removal rates are also included in Table 1. Historical annual VOC mass removal estimates and VOC mass removal rates for the GWET system are presented in Appendix A. The removal rate for the reporting period was an average of approximately 1.52 pounds per day (lb/day), however since adding new extraction wells TW-1 and TW-2 the VOC removal rate increased to an average of approximately 2.49 lb/day.

The 640 Page Mill Road/COE GWET system was designed such that treated groundwater may be reused on-Site for landscape irrigation. None of the extracted and treated groundwater was reused for landscape irrigation during the reporting period.

### 2.1.3 395 Page Mill Road Area X Dual Phase Extraction and Treatment System

A dual phase extraction and treatment system (DPET) was historically operated at the 395 Page Mill Road Site Area X. While operating, the DPET system simultaneously extracted soil vapor and groundwater from five A1U zone DPE wells (wells RW-1, RW-2, RW-4, RW-5, and RW-6). The system also included a single A1 zone groundwater only extraction well (well EW-11R). The DPE wells were shut down with RWQCB approval in June 2001 and well EW-11R was shut down with RWQCB approval in June 2003. The DPET system remained shut down throughout the reporting period. Historical annual VOC mass removal estimates and VOC mass removal rates are presented in Appendix A.

In 2007, HP completed vadose zone soil sampling and laboratory analysis demonstrating that final cleanup standards had been achieved in Area X. Sampling and analysis results were submitted to the RWQCB in a report dated December 12, 2007, and the RWQCB concurred, in a letter dated January 30, 2008, that the soil cleanup standard of had been achieved in Area X.

### 2.1.4 601 California Groundwater Extraction and Treatment System

A GWET system was historically operated at the 601 California site. While operational, the GWET system extracted groundwater from three wells (V8-2X, V8-8X, and V-9X). The GWET system was shut down with RWQCB approval in July 2003, prior to implementing an in situ chemical oxidation (ISCO) [permanganate injection] program. The GWET remained shut down throughout the reporting period. Historical annual VOC mass removal estimates and VOC mass removal rates are presented in Appendix A.

### 2.1.5 COE Perimeter Area Groundwater Extraction Wells

#### 2.1.5.1 Extraction Wells EW-12, EW-13 and EW-14

Groundwater was historically extracted from three wells (EW-12, EW-13, and EW-14) located in the Perimeter Area, southeast of the COE Study Area. Extracted groundwater was conveyed to and treated at the VMS 611 Hansen Way site. Well EW-14 was decommissioned with RWQCB authorization in 2006. Wells EW-12 and EW-13 were shut down with RWQCB authorization in February 2007 and remained shut down throughout the reporting period. Historical annual VOC mass removal estimates and VOC mass removal rates are presented in Appendix A.

#### 2.1.5.2 Extraction Wells EW-15 and EW-16

In November 2013, groundwater extraction wells EW-15 and EW-16, located in the Perimeter Area at 3101 Park Boulevard, were shut down with RWQCB authorization. The RWQCB approved a 12-month trial shut down of wells EW-15 and EW-16 in a letter dated October 8, 2013. During the 12-month long trial shut down, wells EW-15 and EW-16 and several nearby monitoring wells will be sampled for VOCs on a quarterly basis. A report describing the trial shut down monitoring results will be transmitted to the RWQCB after completing the 12-month trial shutdown sampling event in November 2014.

Table 2 presents flow volumes and average flow rates for extraction wells EW-15 and EW-16 while they were operational during the current reporting period. Estimated total VOC mass removal and VOC mass removal rates are also included in Table 2. Historical annual VOC mass removal estimates and VOC mass removal rates are presented in Appendix A.

## 2.2 OTHER WORK COMPLETED DURING THE REPORTING PERIOD

Other work completed by HP and VMS during the current reporting period is described in the following sections.

### 2.2.1 640 Page Mill Road Site/COE Off-Site Area

The following work was completed at the 640 Page Mill Road Site and the Off-Site Area.

An *Addendum to the February 17, 2012 Revised Work Plan for Indoor Air Testing* for the Sites and Off-Site Area was submitted to the RWQCB on January 13, 2014. Pursuant to RWQCB approval of that Addendum, implementation of the Indoor Air Testing Work Plan and Addendum was completed during February through August 2014. The *Indoor Air Testing and Supplemental Vapor Intrusion Assessment Report* was submitted to the RWQCB on September 19, 2014.

### 2.2.2 395 Page Mill Road Site

The following work was completed during this reporting period at the 395 Page Mill Road site.

- Six- and twelve-month post-treatment EISB performance monitoring events were conducted in November 2013 and May 2014, respectively.
- On July 21, 2014, Stantec submitted the "Enhanced *In Situ* Bioremediation (EISB) Implementation Report." The EISB results were favorable and showed significant concentration reductions within and down gradient of the treatment area. Based on the favorable findings, a second round of EISB injections was recommended.
- Stantec conducted a second round of EISB injections between August 19, 2014 and August 21, 2014.

### 2.2.3 601 California Site

The following work was completed during the reporting period at the 601 California site.

- Cross-gradient monitoring well V8-34 was installed on August 30, 2013 and samples were collected in September and October 2013 and January, June, and July 2014.
- The EISB pilot study implementation report for the bio-barrier was submitted on September 12, 2013.

- The EISB results were favorable and showed significant concentration reductions with in the treatment area. Based on the favorable findings, a second phase of EISB injections was recommended.

- VMS submitted a work plan to the RWQCB on June 3, 2014 and received approval on June 26, 2014, to implement EISB treatment in the courtyard area.

- A second round of bio-barrier EISB injections took place in October 2013, and post-injection monitoring took place in January, April and June of 2014.

## 2.3 WORK TO BE CONDUCTED DURING THE NEXT REPORTING PERIOD

It is anticipated that the work described below will be performed during the next reporting period.

- Operation and maintenance of the 640 Page Mill Road/COE GWET system will continue throughout the next reporting period.

- The 12-month monitoring event for the trial shut down of Perimeter Area extraction wells EW-15 and EW-16 will be completed in November 2014 and the trial shutdown report will be submitted to the RWQCB by December 31, 2014.

- The six-and twelve-month post-treatment EISB performance monitoring events for the 395 California site (Area X) will be conducted in February and August 2015.

- The *Indoor Air Testing and Supplemental Vapor Intrusion Assessment Report was* submitted to the RWQCB on September 18, 2014.

- A third round of EISB injections for the 601 California site bio-barrier was completed in September 2014 and post-injection monitoring will be conducted periodically in 2015.

- The initial EISB injections in the 601 California courtyard are anticipated to be completed in the last quarter of 2014.

- The Fourth Five-Year Status Review and Effectiveness Evaluation Report for the Sites and Off-Site Area will be submitted to the RWQCB by February 1, 2015.

- The routine annual groundwater monitoring event will be conducted during the second quarter of 2015.

# 3.0 Groundwater Monitoring

## 3.1 GROUNDWATER ELEVATION MONITORING

During this reporting period, water level measurements were recorded during the second quarter on June 10, 2014. On May 22, 2014, water level measurements of a select subset of wells took place on a self-directed basis to evaluate the capture zones for TW-1 and TW-2. Water levels were measured using battery-powered water level meters. Downhole equipment was decontaminated prior to use and between each well to minimize the potential for cross-contamination. Water levels measured during the second quarter 2014 are shown on Table 3. Well locations are shown on Figure 2.

Historically, a separate groundwater elevation contour map for the A1U zone was prepared and included in the self-monitoring reports. Because a large portion of the A1U zone underlying the southern and western portions of the COE Study Area is unsaturated, a groundwater elevation contour map referred to as the first- encountered groundwater (FEG) zone is now included as Figure 3. The FEG zone map includes data from saturated A1U wells and data from A1 zone wells located in portions of the COE Study Area where the A1U zone is unsaturated. Groundwater elevation contour maps for the A1 zone, the A2 zone, and the B zone are presented on Figures 4 through 6, respectively.

Groundwater flow direction in each of these zones is generally to the north-northeast towards the Oregon Expressway Underpass (OEU). Groundwater flow patterns in the second quarter 2014 are consistent with previous interpretations. Cones of depression are evident in the vicinity of extraction wells TW-1, EW-8, and EW-10 in the A1 zone and TW-2 in the A2 zone. A large cone of depression is created by the OEU Underpass in both the saturated A1U zone and A1 zone.

## 3.2 GROUNDWATER QUALITY MONITORING ACTIVITIES

Table 4 summarizes the SMP sampling schedule for the Site ("Annual" sampling occurs during the second quarter). Table 5 presents a summary of the specific sampling activities conducted during second quarter 2014. A total of 93 wells were sampled on June 10, 11, and 16, 2014. This total included 26 wells scheduled to be sampled in accordance with the Revised SMP and 67 wells that were monitored on a self-directed basis. Well V8-34, located at the 601 California site was resampled on July 1, 2014 due to an anomalous result from the June 11, 2014 sample.

Wells F65A1U, F153A1U, F154A1U, F168A1U, V-16A1U, and W157A1A were dry during the second quarter 2014 monitoring event.

Well sampling methods are described below.

- Four (4) currently active extraction wells (EW-8, EW-10, TW-1, and TW-2) were sampled from directly from a sample port located in the wellhead piping.

- Two (2) currently inactive extraction wells (EW-7 and EW-11R) were sampled from sample ports located in wellhead piping.
- Two (2) inactive extraction wells (EW-12 and EW-13) and seventeen (17) wells (F29A1U, F40A, F41A1, F83A1U, F89A, F126A2, F137A1, O27A1, O152B, OB11-2, P1-A1, P1-A2, P2-A2, P3-A2, P4-A2, P5-A2, and V8-34) were sampled using a conventional three-volume purge method.
- Fifteen (15) monitoring wells (F87A2R, F155A1U, F156A1U, F159A1U, F160A1U, F161A1U, F163A1, F164A1, F165A1, F166A1, F167A1U, F169A2, O162A2, V8-34, and W158A1U) were sampled using low-flow purge methods.
- Fifty-four (54) monitoring wells were sampled using a passive diffusive bag sampler (PDBS).

**Conventional Sampling Method:** Inactive extraction wells and monitoring wells were purged of at least three casing volumes prior to sampling in order to obtain samples characteristic of formation water. Temperature, pH, and specific conductance were measured while purging. The inactive extraction wells and most monitoring wells without a PDBS deployed were purged by either operating the existing extraction well pump, by using a portable submersible pump, or by using a new disposable bailer. Samples were collected from the sample port located in the wellhead piping or using a new disposable bailer.

**Low-Flow Sampling Method:** Groundwater samples were collected using a 2-inch-diameter submersible pump with dedicated tubing. A flow-through cell was utilized to collect indicator parameter data to confirm stabilization prior to sampling.

**Active Extraction Well Sampling Method:** Active extraction wells are regularly refreshed with formation water so specific purging procedures are not required. Samples are collected by opening a sample port located in the wellhead piping. Temperature, pH, and specific conductance were measured at the time of sample collection.

**PDBS Method:** Each PDBS was filled with laboratory-supplied analyte-free de-ionized water, sealed, attached to the PDBS assembly, and lowered to a predetermined deployment depth within the saturated screened interval of a well. The PDBS was subsequently removed from the well after a minimum of two weeks, and the water in the PDBS transferred directly to sample containers.

Purge water and excess PDBS groundwater were collected in temporary storage tanks and subsequently treated at the groundwater treatment system located at 640 Page Mill Road.

Sampling details, water quality parameters (as applicable), and chain-of-custody documentation were recorded on Field Data Sheets and Chain-of-Custody forms. Groundwater samples were packed on ice and delivered under chain-of-custody documentation to

TestAmerica Laboratories, Incorporated (TestAmerica), a California State Certified laboratory, in Pleasanton, California.

Water quality indicator parameters measured during purging (for wells that were purged using conventional and low-flow sampling methods) are presented in Table 6. Table 7 lists the PDBS deployment depths and respective well screen intervals.

A total of 110 water samples were submitted for analysis as follows.

- 93 primary samples.
- Ten (10) duplicate samples.
- Two (2) Matrix Spike/Matrix Spike Duplicate (MS/MSD) samples.
- Two (2) equipment blank sample.
- Three (3) trip blank samples.

All groundwater samples were analyzed for VOCs; former U.S. Environmental Protection Agency (EPA) Method 8010 list of compounds), including Freon® 113 by EPA Method 8260B. Results were reported by the laboratory in an electronic data deliverable format.

## 3.3 QUALITY ASSURANCE / QUALITY CONTROL MEASURES

Quality assurance/quality control (QA/QC) measures were implemented during the sample collection and chemical analysis process. The objective of these QA/QC measures is to ensure that the data are valid and are of adequate quality for their intended purpose. Tables 8 and 9 summarize the field sample collection and laboratory QA/QC findings for the current reporting period. Data quality issues and associated resolutions relative to those issues are identified therein.

During the Second Quarter 2014 event, field QA/QC samples included collecting field duplicate samples from wells F22A1U, F34A, F59A1U, F124A2, F127A1R, F165A1, O67A2, T1A, V8-8, and W-3A1U, three trip blank samples, and two equipment blank samples collected prior to sampling wells F163A1 and F164A1. Equipment Blank (EB-2) collected prior to sampling well F164A1 was reported to contain tetrachloroethene (PCE) at a concentration of 0.55 micrograms per liter (µg/L). Analysis of a groundwater sample from well F164A1 showed no detectable PCE. Accordingly, sampling equipment decontamination was deemed adequate and cross contamination between wells did not occur.

Review of the field and laboratory QA/QC results indicate that data collected during the Second Quarter 2014 are valid and of adequate quality for their intended purpose.

## 3.4 GROUNDWATER QUALITY MONITORING RESULTS

A summary of analytes detected during this reporting period is presented in Table 10. Trichloroethene (TCE) and PCE isoconcentration contour maps for the FEG zone, the A1 zone, and the A2 zone are presented in Figures 7 through 12, respectively. Tabulated historical chemical data are presented in Appendix B.

### 3.4.1 Identification of Significant Increases – Methodology

Significant increases in analyte concentrations are identified and discussed below. To be consistent with the historical methods, a "significant increase" is noted if the current sample result is greater than two times the historical maximum concentration for each well/analyte pair. First-time detections of an analyte are also noted.

### 3.4.2 Identification of Significant Increases – Results

Table 11 identifies wells that had first-time detections (i.e., the respective compound was not previously detected at or above the laboratory reporting limit indicated on the table) and/or a significant increase for one or more compounds. The following wells had significant increases.

Five (5) wells located on the 640 Page Mill Road site (O68A1, P5-A2, T1A, TW-1, and TW-2).

- The increase in A1 zone well O68A1 is attributable to 1,2-Dichlorobenzene (1,2-DCB) and 1,2,4-trichlorobenzene (1,2,4-TCB) at concentrations of 140 µg/L and 52 µg/L. The previous maximum detected concentrations of 1,2-DCB and 1,2,4-TCB in well O68A1 were 30 µg/L and 23 µg/L, respectively. Well O68A1 is within the capture area of A1 Zone extraction well TW-1, which began operation in January 2014.

- The increase in A2 zone well P5-A2 is attributable to *trans*-1,2-Dichlorethene (*trans*-1,2-DCE) at a concentration of 0.56 µg/L. This is the first detection of *trans*-1.2-DCE, a daughter product of anaerobic dechlorination of TCE.

- The increase in A1 zone well T1A is attributable to *cis*-1,2-Dichloroethene (*cis*-1,2-DCE) and *trans*-1,2-DCE at concentrations of 160 µg/L and 8.4 µg/L. The previous maximum detected concentration of *cis*-1,2-DCE and *trans*-1,2-DCE in well T1A were 42 µg/L and 3.3 µg/L. *Cis* and *trans*-1,2-DCE are daughter products from the anaerobic dechlorination of PCE and TCE, and their occurrence suggests that reductive dechlorination is occurring in the vicinity of this well.

- The increase in A1 zone extraction well TW-1 is attributable to 1,1-Dichloroethane (1,1-DCA), 1,1-Dichloroethene (1,1-DCE), *cis*-1,2-DCE, 1,2,4-TCB, 1,1,1-Trichloroethane (1,1,1-TCA), and Freon 113 at concentrations of 24 µg/L, 41 µg/L, 340 µg/L, 92 µg/L, 610 µg/L, and 880 µg/L, respectively. The previous maximum detected concentrations of 1,1-DCA, 1,1-DCE, *cis*-1,2-DCE, 1,2,4-TCB, 1,1,1-TCA, and Freon 113 were 11 µg/L, 13 µg/L, 130 µg/L,

18 µg/L, 76 µg/L, and 270 µg/L, respectively. TW-1 began continuous operation in January 2014.

- The increase in A2 zone extraction well TW-2 is attributable to 1,2-DCB and *cis*-1,2-DCE at concentrations of 93 µg/L and 310 µg/L. This was the first detection of 1,2-DCB and cis-1,2-DCE was previously detected at a maximum concentration of 130 µg/L. TW-2 began continuous operation in January 2014.

Eight (8) wells located in the Off-Site Area (EW-15, EW-16, F22A1U, F98A, F124A2, F156A1U, F160A1U, and V-9).

- The increase in A1U zone inactive extraction well EW-15 is attributable to vinyl chloride (VC) at a concentration of 1.7 µg/L. The previous maximum detected VC concentration in well EW-15 was 0.62 µg/L. EW-15 has been in trial shutdown since November 2013. Since the trial shut down began, TCE and PCE concentrations have declined with a corresponding increase in *cis*-1,2-DCE and VC. This trend indicates reductive dechlorination is taking place in the vicinity of EW-15.

- The increase in A1 zone inactive extraction well EW-16 is attributable to *cis*-1,2-DCE at a concentration of 200 µg/L. The previous maximum detected concentration of cis-1,2-DCE in well EW-16 was 62.3 µg/L. EW-16 has been in trial shutdown since November 2013. Since the trial shut down began, TCE and PCE concentrations have declined with a corresponding increase in *cis*-1,2-DCE. This trend indicates reductive dechlorination is taking place in the vicinity of EW-16.

- The increase in A1U zone well F22A1U is attributable to *cis*-1,2-DCE at a concentration of 24 µg/L. *Cis*-1,2-DCE was previously detected at a concentration of 12 µg/L. The increase in *cis*-1,2-DCE may be attributable to the upgradient EISB injections at the 601 California site.

- The increase in A zone well F98A is attributable to VC at a concentration of 21 µg/L. VC was previously detected at a concentration of 3 µg/L. The increase in VC may be attributable to the upgradient EISB injections at the 601 California site.

- The increase in A2 zone well F124A2 is attributable to 1,1,1-TCA and Freon 113 at concentrations of 85 µg/L and 25 µg/L. The previous maximum detections of 1,1,1-TCA and Freon 113 were 27 µg/L and 6.9 µg/L. Groundwater extraction in the A2 zone began in January 2014 when extraction well TW-2 began operation and appears to be providing hydraulic influence in the area of well F124A2.

- The increase in A1U zone well F156A1U is attributable to 1,1-DCA and 1,1,1-TCA at concentrations of 1.7 µg/L and 0.53 µg/L. These are first detections in well F156A1U. Both detections are below the groundwater cleanup standard.

- The increase in A1U zone well F160A1U is attributable to trans-1,2-DCE at a concentration of 0.51 µg/L. This is the first detection for trans-1,2-DCE.

- The increase in A zone well V-9 is attributable to VC at a concentration of 65 µg/L. VC was previously detected at a concentration of 3 µg/L. The increase in VC maybe attributable to the upgradient EISB injections at the 601 California site.

# TABLES

Annual Groundwater Self-Monitoring Report
California-Olive-Emerson (COE) Area
Palo Alto, California
PN: 185702767.200.0034
September 30, 2014

Stantec

# TABLE 1
## SUMMARY OF 640 PAGE MILL ROAD / COE EXTRACTION SYSTEM FLOW DATA
## Annual 2014
## COE Study Area
## Palo Alto, California

| Date of reading | | 27-Aug-13 | 26-Sep-13 | 29-Oct-13 | 26-Nov-13 | 17-Dec-13 | 30-Jan-14 | 20-Feb-14 | 25-Mar-14 | 22-Apr-14 | 27-May-14 | 25-Jun-14 | 22-Jul-14 | 26-Aug-14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WELLS** | | | | | | | | | | | | | | |
| **EW-04** | **Meter Reading** | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 | 2,820,644 |
| | **Volume per Period (gal) (1)** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Average Flow Rate (gpm) (2)** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **EW-05** | **Meter Reading** | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 | 7,110,360 |
| | **Volume per Period (gal)** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Average Flow Rate (gpm)** | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **EW-07** | **Meter Reading** | 27,636,720 | 28,324,230 | 28,622,710 | 28,622,710 | 28,622,710 | 28,622,710 | 28,622,710 | 28,622,710 | 28,622,710 | 28,622,710 | 28,622,930 | 28,622,930 | 28,622,930 |
| | **Volume per Period (gal)** | 708,420 | 687,510 | 298,480 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 220 | 0 | 0 |
| | **Average Flow Rate (gpm)** | 14.06 | 15.91 | 6.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 |
| **EW-08** | **Meter Reading** | 44,952,658 | 45,723,716 | 46,081,066 | 37,193,411 | 37,204,572 | 37,493,108 | 37,768,659 | 38,184,312 | 38,547,283 | 39,020,117 | 39,424,962 | 39,659,315 | 40,118,146 |
| | **Volume per Period (gal)** | 800,667 | 771,058 | 357,350 | 0 | 11,161 | 288,536 | 275,551 | 415,653 | 362,971 | 472,834 | 404,845 | 234,353 | 458,831 |
| | **Average Flow Rate (gpm)** | 15.89 | 17.85 | 7.52 | 0.00 | 0.37 | 4.55 | 9.11 | 8.75 | 9.00 | 9.38 | 9.69 | 6.03 | 9.10 |
| **EW-10** | **Meter Reading** | 15,599,220 | 16,047,210 | 16,242,570 | 16,242,570 | 16,251,810 | 16,656,480 | 16,985,490 | 17,516,920 | 17,854,640 | 18,203,270 | 18,502,310 | 18,671,120 | 19,009,930 |
| | **Volume per Period (gal)** | 463,990 | 447,990 | 195,360 | 0 | 9,240 | 404,670 | 329,010 | 531,430 | 337,720 | 348,630 | 299,040 | 168,810 | 338,810 |
| | **Average Flow Rate (gpm)** | 9.21 | 10.37 | 4.11 | 0.00 | 0.31 | 6.39 | 10.88 | 11.18 | 8.38 | 6.92 | 7.16 | 4.34 | 6.72 |
| **TW-1** | **Meter Reading** | 0 | 0 | 0 | 0 | 9,990 | 375,010 | 788,540 | 1,406,380 | 1,843,200 | 2,308,530 | 2,662,180 | 2,865,550 | 3,265,110 |
| | **Volume per Period (gal)** | | | | | 9,990 | 365,020 | 413,530 | 617,840 | 436,820 | 465,330 | 353,650 | 203,370 | 399,560 |
| | **Average Flow Rate (gpm)** | | | | | 0.33 | 5.76 | 13.67 | 13.00 | 10.83 | 9.23 | 8.47 | 5.23 | 7.93 |
| **TW-2** | **Meter Reading** | 0 | 0 | 0 | 0 | 4,146 | 866,070 | 1,693,370 | 2,925,650 | 3,828,690 | 5,155,440 | 6,267,390 | 6,902,120 | 8,264,170 |
| | **Volume per Period (gal)** | | | | | 4,146 | 861,924 | 827,300 | 1,232,280 | 903,040 | 1,326,750 | 1,111,950 | 634,730 | 1,362,050 |
| | **Average Flow Rate (gpm)** | | | | | 0.14 | 13.60 | 27.36 | 25.93 | 22.40 | 26.32 | 26.63 | 16.33 | 27.02 |
| **Total System Flow** | | | | | | | | | | | | | | |
| | **Meter Reading (3)** | 117,374,800 | 119,333,950 | 120,184,950 | 120,185,170 | 120,213,190 | 122,163,890 | 124,008,890 | 126,945,350 | 129,148,780 | 131,975,670 | 134,359,970 | 135,750,340 | 138,657,340 |
| | **Volume per Period (gal)** | 2,026,550 | 1,959,150 | 851,000 | 220 | 28,020 | 1,950,700 | 1,845,000 | 2,936,460 | 2,203,430 | 2,826,890 | 2,384,300 | 1,390,370 | 2,907,000 |
| | **Average Flow Rate (gpm)** | 40.21 | 45.35 | 17.91 | 0.01 | 0.93 | 30.79 | 61.01 | 61.79 | 54.65 | 56.09 | 57.10 | 35.76 | 57.68 |

**Reporting Period Totals**

| | | |
|---|---|---|
| Total system flow volume treated (4): | 21,282,540 | gallons |
| Treated flow volume discharged to the storm drain: | 21,263,610 | gallons |
| Treated flow volume diverted to POTW | 18,930 | gallons |
| Treated flow volume diverted for reuse: | 0 | gallons |
| Approximate percent of treated water reused: | 0.00% | |
| Average system flow rate for reporting period (5): | 39.9 | gpm |
| VOC mass removed: | 552.91 | lbs |
| VOC mass removal rate per day (6): | 1.52 | lbs/day |

**Notes:**

(1) Volume per Period = volume of water extracted over the period.
(2) Average Flow Rate = volume per period divided by the period duration.
(3) Total system flow is the influent water totalizer reading.
(4) The "Treatment System" flow volume may not match the sum of the individual well flow volumes due to the minor inherent differences expected between the electronic flow measuring devices (wellheads) and the mechanical flow measuring device (treatment system).
(5) The average system flow rate is calculated by dividing the total flow volume for the period by the duration of the period.
(6) VOC mass removal rate per day equals the VOC mass removed for the period divided by the number of days in the period.

**Abbreviations:**

lbs/day = pounds per day
gal = gallons
gpm = gallons per minute
VOC = volatile organic compounds
lbs = pounds

# TABLE 2
# SUMMARY OF EXTRACTION WELLS EW-15 AND EW-16 FLOW DATA
# Annual 2014
# COE Perimeter Area
# Palo Alto, California

| WELLS | Date of reading | 31-Aug-13 | 28-Sep-13 | 22-Oct-13 | 13-Nov-13 | 17-Dec-13 | 30-Jan-14 | 25-Feb-14 | 25-Mar-14 | 22-Apr-14 | 27-May-14 | 25-Jun-14 | 22-Jul-14 | 28-Aug-14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **EW-15** | **Meter Reading** | 33,910,047 | 34,360,780 | 34,687,997 | 35,049,520 | 35,049,520 | 35,049,520 | 35,049,521 | 35,049,521 | 35,049,521 | 35,049,521 | 35,049,521 | 35,049,521 | 35,049,521 |
| | **Volume per Period (gal)** (1) | 677,813 | 450,733 | 327,217 | 361,523 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Average Flow Rate (gpm)** (2) | 11.21 | 11.18 | 9.47 | 11.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **EW-16** | **Meter Reading** | 3,667,694 | 3,679,878 | 3,688,491 | 3,698,005 | 3,698,005 | 3,698,005 | 3,698,087 | 3,698,087 | 3,698,087 | 3,698,087 | 3,698,087 | 3,698,087 | 3,698,087 |
| | **Volume per Period (gal)** | 18,566 | 12,184 | 8,613 | 9,514 | 0 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Average Flow Rate (gpm)** | 0.31 | 0.30 | 0.25 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Cumulative Flow** | | | | | | | | | | | | | | |
| | **Gallons** | 37,577,741 | 38,040,658 | 38,376,488 | 38,747,525 | 38,747,525 | 38,747,525 | 38,747,608 | 38,747,608 | 38,747,608 | 38,747,608 | 38,747,608 | 38,747,608 | 38,747,608 |
| | **Volume per Period (gal)** | 696,379 | 462,917 | 335,830 | 371,037 | 0 | 0 | 83 | 0 | 0 | 0 | 0 | 0 | 0 |
| | **Average Flow Rate (gpm)** | 11.51 | 11.48 | 9.72 | 11.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Reporting Period Totals**

| | | |
|---|---|---|
| Total extraction well flow volume discharged to sewer: | 1,169,867 | gallons |
| Average system flow rate for reporting period (3): | 2.24 | gpm |
| VOC mass removal (4): | 2.30 | lbs |
| VOC mass removal per day (5): | 0.03 | lbs/day |

**Notes:**

(1) Volume per Period = volume of water extracted over the period.

(2) Average Flow Rate = volume per period divided by the period duration.

(3) The average system flow rate is calculated by dividing the total flow volume for the period by the duration of the period.

(4) VOC mass removal is calculated until November 13, 2013 when EW-15 and EW-16 trial shutdown began.

(5) VOC mass removal per day equals average VOC mass removed for the period divided by the number of days in the period.

**Abbreviations:**

lbs/day = pounds per day

gal = gallons

gpm = gallons per minute

lbs = pounds

VOC = volatile organic compounds

**TABLE 3**
**SUMMARY OF GROUNDWATER ELEVATIONS**
**Second Quarter 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | TOC Elevation (msl) | Top of Screen Elevation (msl) | Bottom of Screen Elevation (msl) | Depth to Water (ft btoc) 22-May-14 | Groundwater Elevation (ft msl) 22-May-14 | Depth to Water (ft btoc) 10-Jun-14 | Groundwater Elevation (ft msl) 10-Jun-14 |
|---|---|---|---|---|---|---|---|
| EW-4 | 34.52 | 9.22 | -7.28 | -- | -- | 20.63 | 13.89 |
| EW-5 | 27.41 | 10.70 | -9.30 | -- | -- | 13.72 | 13.69 |
| EW-7 | 35.48 | 10.43 | -0.58 | -- | -- | 22.01 | 13.47 |
| EW-8 | 29.07 | 6.79 | -1.21 | -- | -- | 16.11 | 12.96 |
| EW-10 | 29.11 | 3.75 | -4.25 | -- | -- | 16.71 | 12.40 |
| EW-11R | 26.90 | -4.32 | -9.32 | -- | -- | 18.42 | 8.48 |
| EW-12 | 29.76 | 13.09 | 3.09 | -- | -- | 16.79 | 12.97 |
| EW-13 | 27.23 | -5.18 | -11.18 | -- | -- | 14.12 | 13.11 |
| EW-15 | 24.84 | 2.84 | -2.16 | -- | -- | 16.36 | 8.48 |
| EW-16 | 24.89 | -7.60 | -10.10 | -- | -- | 16.22 | 8.67 |
| F21A1U | 34.53 | 14.00 | 4.00 | -- | -- | 21.28 | 13.25 |
| F22A1U | 34.56 | 19.10 | 9.10 | -- | -- | 21.39 | 13.17 |
| F29A1U | 30.06 | 14.56 | 4.56 | -- | -- | 19.68 | 10.38 |
| F31A | 30.89 | 0.75 | -19.25 | -- | -- | 20.15 | 10.74 |
| F32A | 27.99 | -1.33 | -20.33 | -- | -- | 18.71 | 9.28 |
| F33B | 27.97 | -37.37 | -47.37 | -- | -- | 14.14 | 13.83 |
| F34A | 28.99 | 5.44 | -16.06 | -- | -- | 19.43 | 9.56 |
| F35B | 28.94 | -33.41 | -42.91 | -- | -- | 19.07 | 9.87 |
| F36A | 34.35 | 5.21 | -7.29 | -- | -- | 22.71 | 11.64 |
| F38A | 33.26 | 6.55 | -8.95 | -- | -- | 22.07 | 11.19 |
| F40A | 30.86 | 9.06 | -11.44 | -- | -- | 19.92 | 10.94 |
| F41A1 | 33.01 | 8.19 | -1.81 | -- | -- | 20.09 | 12.92 |
| F42A1R | 33.19 | 13.51 | -0.99 | 19.71 | 13.48 | 19.82 | 13.37 |
| F46A1 | 27.88 | -4.93 | -14.93 | -- | -- | 19.14 | 8.74 |
| F49A1 | 25.63 | -6.10 | -16.10 | -- | -- | 18.81 | 6.82 |
| F51A1 | 24.18 | -6.32 | -21.32 | -- | -- | 17.91 | 6.27 |
| F53A1U | 25.61 | 8.86 | -1.14 | -- | -- | 19.42 | 6.19 |
| F54A1U | 24.13 | 2.56 | -4.44 | -- | -- | 17.91 | 6.22 |
| F55A1U | 26.26 | 5.01 | -2.49 | -- | -- | 20.41 | 5.85 |
| F56A1 | 26.23 | -6.42 | -15.42 | -- | -- | 19.09 | 7.14 |
| F57A1U | 22.41 | 8.89 | -3.61 | -- | -- | 15.84 | 6.57 |
| F58A | 22.26 | -15.10 | -25.10 | -- | -- | 15.43 | 6.83 |
| F59A1U | 27.03 | 8.52 | -1.48 | -- | -- | 20.80 | 6.23 |
| F61A1U | 28.29 | 6.20 | -3.80 | -- | -- | 23.58 | 4.71 |
| F62A1 | 28.25 | -4.20 | -14.20 | -- | -- | 21.55 | 6.70 |
| F63A1U/A1 | 33.55 | 16.64 | 1.64 | -- | -- | 19.98 | 13.57 |
| F64A1 | 33.17 | 1.20 | -8.80 | -- | -- | 19.61 | 13.56 |
| F65A1U | 29.76 | -2.74 | -10.24 | -- | -- | Dry | NA |
| F66A | 29.40 | -2.41 | -9.91 | -- | -- | 20.61 | 8.79 |
| F71A1U | 26.68 | 9.00 | 3.00 | -- | -- | 18.74 | 7.94 |
| F72A2 | 26.55 | -12.98 | -18.98 | -- | -- | 17.65 | 8.90 |
| F73A1 | 31.48 | -0.43 | -5.93 | 18.52 | 12.96 | 18.69 | 12.79 |
| F74A | 21.73 | -12.98 | -22.98 | -- | -- | 14.07 | 7.66 |
| F75A1U | 22.06 | 7.46 | -4.29 | -- | -- | 15.36 | 6.70 |
| F76A2 | 29.05 | -10.95 | -20.95 | -- | -- | 19.97 | 9.08 |
| F77A1U | 28.94 | 11.10 | 1.10 | -- | -- | 18.90 | 10.04 |
| F78A1 | 35.95 | 14.49 | 2.49 | 22.33 | 13.62 | 22.44 | 13.51 |
| F83A1U | 29.67 | 12.17 | 7.17 | -- | -- | 17.22 | 12.45 |
| F84A1 | 29.48 | -2.52 | -10.52 | -- | -- | 17.30 | 12.18 |
| F85A1 | 34.36 | 7.75 | -4.25 | 26.05 | 8.31 | 21.02 | 13.34 |
| F86A2 | 34.36 | -7.64 | -17.64 | 20.82 | 13.54 | NM | NA |
| F87A2R | 33.09 | -4.91 | -14.91 | 19.77 | 13.32 | 19.88 | 13.21 |
| F88A1U | 26.57 | 13.26 | -1.74 | -- | -- | 17.98 | 8.59 |
| F89A | 26.45 | -9.05 | -20.55 | -- | -- | 18.02 | 8.43 |
| F90A1U | 21.33 | 10.33 | -4.67 | -- | -- | 14.77 | 6.56 |
| F91A1 | 21.55 | -8.45 | -16.95 | -- | -- | 13.97 | 7.58 |
| F92A2 | 28.37 | -17.86 | -26.86 | -- | -- | 19.88 | 8.49 |
| F93A1U | 28.92 | 14.55 | 4.55 | -- | -- | 20.31 | 8.61 |
| F94A2 | 29.10 | -9.90 | -24.90 | -- | -- | 19.70 | 9.40 |
| F95A | 35.61 | 11.48 | -3.52 | -- | -- | 23.74 | 11.87 |
| F96A2D | 35.30 | -6.12 | -12.12 | -- | -- | 23.32 | 11.98 |
| F97A | 34.11 | -1.93 | -9.93 | -- | -- | 20.54 | 13.57 |

**TABLE 3**
**SUMMARY OF GROUNDWATER ELEVATIONS**
**Second Quarter 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | TOC Elevation (msl) | Top of Screen Elevation (msl) | Bottom of Screen Elevation (msl) | Depth to Water (ft btoc) 22-May-14 | Groundwater Elevation (ft msl) 22-May-14 | Depth to Water (ft btoc) 10-Jun-14 | Groundwater Elevation (ft msl) 10-Jun-14 |
|---|---|---|---|---|---|---|---|
| F98A | 34.44 | 0.61 | -8.39 | -- | -- | 20.74 | 13.70 |
| F102B | 31.04 | -55.45 | -61.45 | -- | -- | 17.28 | 13.76 |
| F106A1 | 36.67 | 12.08 | 2.08 | 22.60 | 14.07 | 22.76 | 13.91 |
| F107A2 | 36.70 | -0.82 | -5.82 | 22.61 | 14.09 | 22.82 | 13.88 |
| F123A1 | 34.16 | 6.77 | -3.23 | 20.50 | 13.66 | 20.71 | 13.45 |
| F124A2 | 34.31 | -7.07 | -12.07 | 20.72 | 13.59 | 20.94 | 13.37 |
| F125A1 | 34.16 | 14.69 | 4.69 | 20.45 | 13.71 | 20.66 | 13.50 |
| F126A2 | 34.28 | 0.78 | -14.22 | 20.56 | 13.72 | 20.75 | 13.53 |
| F127A1R | 32.70 | 7.70 | 2.70 | 19.61 | 13.09 | 19.79 | 12.91 |
| F129A1 | 31.48 | 0.50 | -4.50 | 18.43 | 13.05 | 18.55 | 12.93 |
| F130A1U | 32.86 | 20.27 | 10.27 | -- | -- | 19.84 | 13.02 |
| F131A1 | 32.61 | 5.21 | -4.79 | 19.46 | 13.15 | 19.62 | 12.99 |
| F132A2 | 25.23 | -20.77 | -23.77 | -- | -- | 17.91 | 7.32 |
| F133B | 24.32 | -40.39 | -45.39 | -- | -- | 16.54 | 7.78 |
| F134A1 | 22.84 | -10.66 | -20.66 | -- | -- | 16.08 | 6.76 |
| F135A1 | 30.15 | 1.29 | -8.73 | -- | -- | 16.91 | 13.24 |
| F136A1 | 31.66 | 0.11 | -9.89 | -- | -- | 18.41 | 13.25 |
| F137A1 | 33.75 | 8.75 | -1.25 | 20.09 | 13.66 | 20.29 | 13.46 |
| F138A1U | 28.73 | 4.31 | 0.31 | -- | -- | 15.66 | 13.07 |
| F139A1 | 28.21 | -6.05 | -10.05 | -- | -- | 15.52 | 12.69 |
| F140A1 | 27.16 | -7.15 | -12.15 | -- | -- | 17.41 | 9.75 |
| F141A1U | 23.64 | 0.24 | -4.76 | -- | -- | 16.98 | 6.66 |
| F142A1 | 22.43 | -12.80 | -17.80 | -- | -- | 14.68 | 7.75 |
| F143A1U | 25.49 | 0.42 | -4.58 | -- | -- | 14.98 | 10.51 |
| F145A1 | 27.25 | -3.72 | -8.72 | -- | -- | 19.92 | 7.33 |
| F148A1U | 22.79 | 1.79 | -8.21 | -- | -- | 14.73 | 8.06 |
| F149A1U | 33.79 | 12.49 | 2.49 | -- | -- | 20.33 | 13.46 |
| F150A1 | 33.75 | -0.75 | -4.75 | -- | -- | 20.32 | 13.43 |
| F151B | 33.42 | -40.71 | -45.71 | -- | -- | 18.72 | 14.70 |
| F153A1U | 30.88 | 19.38 | 14.38 | -- | -- | Dry | NA |
| F154A1U | 29.10 | 19.60 | 15.60 | -- | -- | Dry | NA |
| F155A1U | 27.52 | 16.02 | 6.02 | -- | -- | 17.56 | 9.96 |
| F156A1U | 32.45 | 18.45 | 8.45 | -- | -- | 19.23 | 13.22 |
| F159A1U | 26.79 | 10.79 | 0.79 | -- | -- | 18.20 | 8.59 |
| F160A1U | 24.45 | 8.49 | -1.55 | -- | -- | 17.79 | 6.66 |
| F161A1U | 24.43 | 7.43 | -2.57 | -- | -- | 17.74 | 6.69 |
| F163A1 | 21.42 | -11.58 | -16.58 | -- | -- | 14.76 | 6.66 |
| F164A1 | 22.32 | -9.68 | -14.68 | -- | -- | 15.59 | 6.73 |
| F165A1 | 32.16 | 1.16 | -1.85 | 20.66 | 11.50 | 20.11 | 12.05 |
| F166A1 | 30.83 | 3.83 | 1.17 | 17.29 | 13.54 | 17.60 | 13.23 |
| F167A1U | 32.51 | 20.51 | 10.51 | -- | -- | 19.60 | 12.91 |
| F168A1U | 34.30 | 23.30 | 17.30 | -- | -- | Dry | NA |
| F169A2 | 36.64 | -7.16 | -12.16 | 22.40 | 14.24 | 22.61 | 14.03 |
| H1 | 27.10 | NA | NA | -- | -- | 20.52 | 6.58 |
| H2 | 26.84 | NA | NA | -- | -- | 18.51 | 8.33 |
| M-1 | 34.26 | 14.65 | -14.85 | -- | -- | 20.49 | 13.77 |
| M-2 | 36.68 | 17.11 | -7.89 | -- | -- | 22.98 | 13.70 |
| O17B | 38.31 | -27.35 | -36.85 | -- | -- | 24.86 | 13.45 |
| O27A1 | 40.04 | NA | NA | -- | -- | 25.60 | 14.44 |
| O28A1 | 38.55 | 13.95 | 3.95 | 24.93 | 13.62 | 25.12 | 13.43 |
| O52A2 | 38.59 | -3.08 | -16.58 | 24.96 | 13.63 | 25.14 | 13.45 |
| O67A2 | 36.66 | -7.44 | -22.44 | 23.32 | 13.34 | 23.52 | 13.14 |
| O68A1 | 37.27 | 10.81 | -4.19 | 23.66 | 13.61 | 23.86 | 13.41 |
| O69A2D | 34.98 | -14.30 | -25.80 | -- | -- | 21.85 | 13.13 |
| O70A1 | 35.20 | 5.64 | 0.14 | 21.46 | 13.74 | 21.62 | 13.58 |
| O100B | 36.10 | -24.51 | -30.51 | -- | -- | 22.22 | 13.88 |
| O104A1 | 36.67 | 16.58 | 6.58 | -- | -- | 22.63 | 14.04 |
| O105A2 | 36.51 | 1.48 | -6.52 | -- | -- | 22.50 | 14.01 |
| O108A1 | 35.74 | 15.46 | 5.46 | -- | -- | 21.88 | 13.86 |
| O109A2 | 35.86 | -1.62 | -9.62 | -- | -- | 22.04 | 13.82 |
| O110A1 | 37.04 | 13.70 | 3.70 | 23.10 | 13.94 | 23.31 | 13.73 |
| O111A2 | 37.20 | -1.16 | -9.16 | 23.30 | 13.90 | 23.48 | 13.72 |

**TABLE 3**
**SUMMARY OF GROUNDWATER ELEVATIONS**
**Second Quarter 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | TOC Elevation (msl) | Top of Screen Elevation (msl) | Bottom of Screen Elevation (msl) | Depth to Water (ft btoc) 22-May-14 | Groundwater Elevation (ft msl) 22-May-14 | Depth to Water (ft btoc) 10-Jun-14 | Groundwater Elevation (ft msl) 10-Jun-14 |
|---|---|---|---|---|---|---|---|
| O112A1 | 37.80 | 11.33 | 3.33 | 24.00 | 13.80 | 24.19 | 13.61 |
| O113A2 | 37.61 | -1.21 | -11.21 | 23.85 | 13.76 | 24.00 | 13.61 |
| O114A2 | 35.99 | -2.71 | -7.71 | 22.28 | 13.71 | 22.47 | 13.52 |
| O115A1 | 34.78 | 10.36 | 4.36 | 20.92 | 13.86 | 21.05 | 13.73 |
| O116A1 | 30.42 | 11.70 | 4.70 | 16.52 | 13.90 | 16.72 | 13.70 |
| O117A2 | 30.36 | -2.40 | -10.40 | 16.42 | 13.94 | 16.61 | 13.75 |
| O118B | 30.26 | -32.70 | -42.70 | -- | -- | 15.98 | 14.28 |
| O119A1 | 39.82 | 9.40 | -0.60 | 26.53 | 13.29 | 26.41 | 13.41 |
| O120A2 | 40.04 | -5.40 | -15.40 | 26.20 | 13.84 | 26.73 | 13.31 |
| O121A2 | 38.10 | 1.90 | -8.11 | -- | -- | 23.70 | 14.40 |
| O122A2 | 37.91 | 0.66 | -9.34 | 23.26 | 14.65 | 23.48 | 14.43 |
| O152B | 35.45 | -34.55 | -39.55 | -- | -- | 21.47 | 13.98 |
| O162A2 | 37.71 | -7.79 | -11.29 | 17.85 | 19.86 | 23.10 | 14.61 |
| OB4-1 | 37.34 | 9.29 | 1.29 | -- | -- | 23.43 | 13.91 |
| OB4-2 | 36.94 | -1.55 | -9.55 | -- | -- | 23.05 | 13.89 |
| OB5-1 | 30.57 | 11.70 | -8.30 | -- | -- | 16.89 | 13.68 |
| OB5-2 | 40.02 | 42.47 | 3.77 | -- | -- | 26.42 | 13.60 |
| OB5-3 | 30.24 | 11.80 | 4.30 | -- | -- | 16.51 | 13.73 |
| OB5-4 | 30.32 | -1.10 | -8.60 | -- | -- | 16.52 | 13.80 |
| OB5-5 | 39.83 | 0.27 | -8.43 | -- | -- | 26.16 | 13.67 |
| OB7-1 | 38.63 | 9.48 | -0.52 | -- | -- | 25.22 | 13.41 |
| OB7-2 | 39.85 | 9.22 | -0.78 | -- | -- | 26.41 | 13.44 |
| OB7-3 | 40.14 | 10.30 | 0.30 | -- | -- | 26.77 | 13.37 |
| OB8-1 | 32.44 | 6.82 | -3.18 | -- | -- | 19.41 | 13.03 |
| OB8-2 | 33.14 | 7.41 | -2.60 | -- | -- | 19.97 | 13.17 |
| OB8-3 | 32.08 | 6.38 | -3.62 | -- | -- | 19.01 | 13.07 |
| OB9-2 | 32.56 | 4.71 | -5.29 | -- | -- | 19.62 | 12.94 |
| OB10-1 | 33.02 | 5.55 | -4.45 | -- | -- | 20.00 | 13.02 |
| OB10-2 | 33.96 | 5.51 | -4.49 | -- | -- | 21.12 | 12.84 |
| OB11-1 | 27.60 | 6.35 | -3.65 | -- | -- | 18.93 | 8.67 |
| OB11-2 | 23.87 | 7.12 | -2.88 | -- | -- | 17.51 | 6.36 |
| OB11-3 | 28.38 | 8.96 | -1.04 | -- | -- | 19.33 | 9.05 |
| OB11-4 | 28.00 | -5.28 | -10.28 | -- | -- | 19.46 | 8.54 |
| OB11-5 | 28.80 | -3.76 | -9.76 | -- | -- | 19.54 | 9.26 |
| OB12-1 | 31.09 | 15.48 | 0.48 | -- | -- | Dry | NA |
| OB12-2 | 31.82 | 12.18 | -0.82 | -- | -- | 18.80 | 13.02 |
| OB13-1 | 29.86 | -3.02 | -7.52 | -- | -- | 16.97 | 12.89 |
| OB14-1 | 27.94 | -3.09 | -8.09 | -- | -- | 15.43 | 12.51 |
| OB15-1 | 26.15 | 4.67 | -0.33 | -- | -- | 17.69 | 8.46 |
| OB16-1 | 26.25 | -6.60 | -11.60 | -- | -- | 17.19 | 9.06 |
| P1-A1 | 34.33 | 10.13 | 0.13 | 21.03 | 13.30 | 20.70 | 13.63 |
| P1-A2 | 34.16 | -1.84 | -11.84 | 20.51 | 13.65 | 20.68 | 13.48 |
| P2-1 | 26.04 | 5.99 | 0.99 | -- | -- | 21.80 | 4.24 |
| P2-2 | 25.84 | -7.16 | -8.66 | -- | -- | 18.79 | 7.05 |
| P2-3 | 25.94 | -12.56 | -14.56 | -- | -- | 18.81 | 7.13 |
| P2-4 | 26.06 | -19.44 | -22.44 | -- | -- | 17.12 | 8.94 |
| P2-A2 | 33.98 | -1.02 | -11.02 | -- | -- | 20.47 | 13.51 |
| P3-1 | 25.06 | 6.84 | 1.84 | -- | -- | 19.87 | 5.19 |
| P3-2 | 25.03 | -6.47 | -8.47 | -- | -- | 18.31 | 6.72 |
| P3-3 | 25.02 | -10.48 | -12.48 | -- | -- | 18.21 | 6.81 |
| P3-4 | 25.09 | -13.91 | -15.91 | -- | -- | 18.21 | 6.88 |
| P3-5 | 24.81 | -20.69 | -22.19 | -- | -- | 17.50 | 7.31 |
| P3-6 | 24.82 | -23.18 | -24.68 | -- | -- | 17.39 | 7.43 |
| P3-A2 | 34.59 | -0.41 | -10.41 | 20.85 | 13.74 | 21.03 | 13.56 |
| P4-A2 | 34.93 | 0.93 | -9.07 | -- | -- | 21.33 | 13.60 |
| P5-A2 | 34.85 | -3.15 | -10.15 | 21.05 | 13.80 | 21.21 | 13.64 |
| P17 | 39.84 | 7.84 | -4.66 | -- | -- | 25.95 | 13.89 |
| P21 | 39.57 | NA | NA | -- | -- | 25.59 | 13.98 |
| P24 | 38.78 | NA | NA | -- | -- | 24.92 | 13.86 |
| P25 | 38.03 | NA | NA | -- | -- | 24.00 | 14.03 |
| P26 | 40.05 | NA | NA | -- | -- | 26.16 | 13.89 |
| P27 | 36.27 | NA | NA | -- | -- | 22.43 | 13.84 |

**TABLE 3**
**SUMMARY OF GROUNDWATER ELEVATIONS**
**Second Quarter 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | TOC Elevation (msl) | Top of Screen Elevation (msl) | Bottom of Screen Elevation (msl) | Depth to Water (ft btoc) 22-May-14 | Groundwater Elevation (ft msl) 22-May-14 | Depth to Water (ft btoc) 10-Jun-14 | Groundwater Elevation (ft msl) 10-Jun-14 |
|---|---|---|---|---|---|---|---|
| P28 | 35.79 | NA | NA | -- | -- | 21.93 | 13.86 |
| P29 | 36.15 | NA | NA | -- | -- | 22.37 | 13.78 |
| RW-1 | 25.63 | 18.90 | -1.10 | -- | -- | 16.69 | 8.94 |
| RW-2 | 25.84 | 19.20 | -0.80 | -- | -- | 17.52 | 8.32 |
| RW-4 | 25.16 | 18.87 | -1.13 | -- | -- | 15.99 | 9.17 |
| RW-5 | 22.96 | 19.03 | -0.97 | -- | -- | 13.75 | 9.21 |
| RW-6 | 25.56 | 18.73 | -1.27 | -- | -- | 16.61 | 8.95 |
| SH1 | 27.99 | 9.69 | -5.31 | -- | -- | 22.48 | 5.51 |
| SH2 | 30.22 | NA | NA | -- | -- | 23.19 | 7.03 |
| T1A | 34.25 | -0.75 | -10.75 | -- | -- | 20.57 | 13.68 |
| V8-1 | 37.38 | 13.16 | -6.84 | -- | -- | 23.36 | 14.02 |
| V8-2 | 39.43 | 12.77 | -7.23 | -- | -- | 25.51 | 13.92 |
| V8-2X | 35.59 | 14.01 | -5.99 | -- | -- | 21.58 | 14.01 |
| V8-3 | 36.71 | 1.45 | -8.55 | -- | -- | 22.87 | 13.84 |
| V8-4 | 37.16 | 14.17 | -5.83 | -- | -- | 23.34 | 13.82 |
| V8-5 | 37.98 | 12.43 | -7.57 | -- | -- | 24.00 | 13.98 |
| V8-6 | 37.57 | 11.32 | -8.18 | -- | -- | 23.52 | 14.05 |
| V8-7 | 36.92 | 9.84 | -10.16 | -- | -- | 23.24 | 13.68 |
| V8-8 | 36.83 | 14.07 | -5.93 | -- | -- | NM | NA |
| V8-8X | 33.69 | 2.48 | -7.52 | -- | -- | NM | NA |
| V8-13B | 36.37 | -21.81 | -31.81 | -- | -- | 21.96 | 14.41 |
| V8-22 | 36.60 | 3.50 | -6.50 | -- | -- | 22.80 | 13.80 |
| V8-34 | 35.96 | 6.96 | -8.04 | -- | -- | 22.35 | 13.61 |
| V-9 | 34.41 | -1.20 | -21.20 | -- | -- | 21.09 | 13.32 |
| V-9X | 32.90 | -2.15 | -7.15 | -- | -- | 19.09 | 13.81 |
| V-10 | 36.34 | 7.00 | -8.00 | -- | -- | 23.43 | 12.91 |
| V-16A1U | 36.17 | 27.12 | 17.12 | -- | -- | 21.63 | 14.54 |
| V-23 | 36.07 | 6.75 | -3.25 | -- | -- | 23.36 | 12.71 |
| V-33A2D | 36.20 | -14.36 | -19.36 | -- | -- | 23.82 | 12.38 |
| VB-1 | 27.82 | 11.99 | -7.01 | -- | -- | 22.21 | 5.61 |
| W-3A1U | 28.89 | 14.19 | -0.81 | -- | -- | 17.82 | 11.07 |
| W-7A1U | 31.09 | 16.55 | 4.05 | -- | -- | 18.79 | 12.30 |
| W-10A1U | 27.80 | 5.91 | 0.91 | -- | -- | 20.08 | 7.72 |
| W-11A1U | 34.72 | 2.76 | -2.24 | -- | -- | 23.03 | 11.69 |
| W-12A1U-R | 28.38 | 10.56 | 0.56 | -- | -- | 19.21 | 9.17 |
| W-13A2 | 27.92 | -12.73 | -22.73 | -- | -- | 20.12 | 7.80 |
| W-16A1 | 28.56 | -2.93 | -10.43 | -- | -- | 19.75 | 8.81 |
| W-17A2 | 28.19 | -12.59 | -17.59 | -- | -- | 19.42 | 8.77 |
| W-19A2 | 30.75 | -11.46 | -21.46 | -- | -- | 20.69 | 10.06 |
| W157A1U | 30.96 | 21.96 | 11.96 | -- | -- | 18.42 | 12.54 |
| W158A1U | 29.19 | 14.19 | 9.19 | -- | -- | 18.71 | 10.48 |

**Notes and Abbreviations:**
NA = not available
NM = not measured
TOC = top of casing
msl = mean sea level
ft btoc = feet below top of casing
-- = Well was not scheduled to be monitored

**TABLE 4**
**SELF-MONITORING PROGRAM SAMPLING AND ANALYSIS SCHEDULE**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | Annual | Biennial |
|---|---|---|
| BW-4 (1) | | |
| EW-1 (2) | | |
| EW-2 (2) | | |
| EW-4 | | 8010+Freon® 113 |
| EW-5 | | 8010+Freon® 113 |
| EW-6 (2) | | |
| EW-7 * | | 8010+Freon® 113 |
| EW-8 * | | 8010+Freon® 113 |
| EW-9 (3) | | |
| EW-10 | | 8010+Freon® 113 |
| EW-11R | 8010+Freon® 113 | |
| EW-12 | 8010+Freon® 113 | |
| EW-13 | | 8010+Freon® 113 |
| EW-14 (4) | | |
| EW-15 | | 8010+Freon® 113 |
| EW-16 | | 8010+Freon® 113 |
| F21A1U | | 8010+Freon® 113 |
| F22A1U * | | 8010+Freon® 113 |
| F23A (2) | | |
| F32A | | 8010+Freon® 113 |
| F33B | | 8010+Freon® 113 |
| F34A | 8010+Freon® 113 | |
| F36A | | 8010+Freon® 113 |
| F38A | 8010+Freon® 113 | |
| F40A | 8010+Freon® 113 | |
| F42A1R (6) * | | 8010+Freon® 113 |
| F43A1U (2) | | |
| F44A (2) | | |
| F45A1U (2) | | |
| F46A1 | | 8010+Freon® 113 |
| F49A1 | 8010+Freon® 113 | |
| F53A1U | 8010+Freon® 113 | |
| F54A1U | | 8010+Freon® 113 |
| F57A1U | 8010+Freon® 113 | |
| F58A | 8010+Freon® 113 | |
| F59A1U | | 8010+Freon® 113 |
| F61A1U | | 8010+Freon® 113 |
| F62A1 | 8010+Freon® 113 | |
| F63A1U/A1 | | 8010+Freon® 113 |
| F64A1 | | 8010+Freon® 113 |
| F73A1 | | 8010+Freon® 113 |
| F74A | 8010+Freon® 113 | |
| F75A1U | | 8010+Freon® 113 |
| F77A1U | | 8010+Freon® 113 |
| F78A1 | | 8010+Freon® 113 |
| F85A1 | | 8010+Freon® 113 |
| F88A1U | | 8010+Freon® 113 |
| F92A2 | 8010+Freon® 113 | |
| F95A | | 8010+Freon® 113 |
| F97A | | 8010+Freon® 113 |

**TABLE 4**
**SELF-MONITORING PROGRAM SAMPLING AND ANALYSIS SCHEDULE**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | Annual | Biennial |
|---|---|---|
| F98A | | 8010+Freon® 113 |
| F106A1 | | 8010+Freon® 113 |
| F107A2 | | 8010+Freon® 113 |
| F123A1 | | 8010+Freon® 113 |
| F124A2 | | 8010+Freon® 113 |
| F125A1 | | 8010+Freon® 113 |
| F127A1R (7) | 8010+Freon® 113 | |
| F129A1 | | 8010+Freon® 113 |
| F130A1U | | 8010+Freon® 113 |
| F131A1 | | 8010+Freon® 113 |
| F133B | | 8010+Freon® 113 |
| F135A1 | | 8010+Freon® 113 |
| F136A1 | | 8010+Freon® 113 |
| F138A1U | 8010+Freon® 113 | |
| F139A1 | 8010+Freon® 113 | |
| F140A1 | | 8010+Freon® 113 |
| F141A1U | 8010+Freon® 113 | |
| F142A1 | 8010+Freon® 113 | |
| F143A1U | | 8010+Freon® 113 |
| F145A1 | | 8010+Freon® 113 |
| F151B | | 8010+Freon® 113 |
| O17B | | 8010+Freon® 113 |
| O28A1 | | 8010+Freon® 113 |
| O52A2 | 8010+Freon® 113 | |
| O67A2 * | | 8010+Freon® 113 |
| O68A1 * | | 8010+Freon® 113 |
| O69A2D | 8010+Freon® 113 | |
| O70A1 | | 8010+Freon® 113 |
| O100B | | 8010+Freon® 113 |
| O104A1 | | 8010+Freon® 113 |
| O105A2 | | 8010+Freon® 113 |
| O108A1 | | 8010+Freon® 113 |
| O109A2 | | 8010+Freon® 113 |
| O110A1 | | 8010+Freon® 113 |
| O111A2 | | 8010+Freon® 113 |
| O112A1 | | 8010+Freon® 113 |
| O113A2 | | 8010+Freon® 113 |
| O114A2 | 8010+Freon® 113 | |
| O115A1 | | 8010+Freon® 113 |
| O116A1 | | 8010+Freon® 113 |
| O117A2 | | 8010+Freon® 113 |
| O118B | 8010+Freon® 113 | |
| O119A1 | 8010+Freon® 113 | |
| O120A2 * | | 8010+Freon® 113 |
| O121A2 | | 8010+Freon® 113 |
| O122A2 | | 8010+Freon® 113 |
| RW-1 | | 8010+Freon® 113 |
| RW-2 | | 8010+Freon® 113 |
| RW-4 | | 8010+Freon® 113 |
| RW-5 * | | 8010+Freon® 113 |

# TABLE 4
## SELF-MONITORING PROGRAM SAMPLING AND ANALYSIS SCHEDULE
## COE Study Area and Perimeter Area
## Palo Alto, California

| Well | Annual | Biennial |
|---|---|---|
| RW-6 | | 8010+Freon® 113 |
| SH1 | | 8010+Freon® 113 |
| V8-1 * | | 8010+Freon® 113 |
| V8-2 | | 8010+Freon® 113 |
| V8-2X | | 8010+Freon® 113 |
| V8-3 | | 8010+Freon® 113 |
| V8-4 | | 8010+Freon® 113 |
| V8-5 * | | 8010+Freon® 113 |
| V8-6 | | 8010+Freon® 113 |
| V8-7 | 8010+Freon® 113 | |
| V8-8 * | | 8010+Freon® 113 |
| V8-8X | | 8010+Freon® 113 |
| V8-13B | | 8010+Freon® 113 |
| V8-22 | | 8010+Freon® 113 |
| V-9 | | 8010+Freon® 113 |
| V-9X | | 8010+Freon® 113 |
| V-10 | | 8010+Freon® 113 |
| V-23 | | 8010+Freon® 113 |
| V-33A2D | | 8010+Freon® 113 |
| VB-1 | | 8010+Freon® 113 |
| W-3A1U | 8010+Freon® 113 | |
| W-7A1U | | 8010+Freon® 113 |
| W-9A1U (5) | | |
| W-10A1U | | 8010+Freon® 113 |
| W-11A1U | | 8010+Freon® 113 |
| W-12A1U-R | | 8010+Freon® 113 |
| W-13A2 | 8010+Freon® 113 | |
| W-16A1 | | 8010+Freon® 113 |
| W-17A2 | | 8010+Freon® 113 |
| W-19A2 | 8010+Freon® 113 | |
| OEU-Manhole | | 8010+Freon® 113 |

**Notes:**

(1) Well BW-4 was decommissioned on March 15, 2002

(2) Wells F23A, F43A1U, F44A, F45A1U, EW-1, EW-2, and EW-6 were decommissioned in July 2005

(3) Approved for removal from SMP on February 9, 2007

(4) Well EW-14 was decommissioned in July of 2006, per RWQCB approval.

(5) Well W-9A1U/A1 was decomissioned in 1998, per RWQCB approval.

(6) At the request of the RWQCB, F42A1 was overdrilled and replaced with F42A1R in the same bore hole on March 12, 2013

(7) To facilitate property redevelopment monitoring well F127A1 was destroyed and replaced with F127A1R just outside of the property boundary on January 24, 2012.

* This well is being monitored more frequently on a self-directed basis.

**Abbreviations:**

8010+Freon® 113 = Reporting EPA Method 8010 analytes plus Freon® 113 analyzed by EPA Method 8260B

OEU = Oregon Expressway Underpass Manhole

Biennial = Sampled in odd years (e.g. 2005, 2007)

**TABLE 5**
**SUMMARY OF GROUNDWATER QUALITY SAMPLING ACTIVITIES**
**June 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | Sample Date | Sampled on a Self-Directed Basis | 8260B * | Field Duplicate | MS/MSD |
|---|---|---|---|---|---|
| EW-7 | 6/16/2014 | X | X | | |
| EW-8 | 6/10/2014 | X | X | | |
| EW-10 | 6/11/2014 | X | X | | |
| EW-11R | 6/11/2014 | | X | | |
| EW-12 | 6/11/2014 | | X | | |
| EW-13 | 6/11/2014 | X | X | | |
| F21A1U | 6/11/2014 | X | X | | |
| F22A1U | 6/11/2014 | X | X | X | |
| F29A1U | 6/11/2014 | X | X | | |
| F34A | 6/10/2014 | | X | X | |
| F36A | 6/11/2014 | X | X | | |
| F38A | 6/10/2014 | | X | | |
| F40A | 6/11/2014 | | X | | |
| F41A1 | 6/11/2014 | X | X | | |
| F42A1R | 6/10/2014 | X | X | | |
| F49A1 | 6/11/2014 | | X | | |
| F53A1U | 6/11/2014 | | X | | X |
| F57A1U | 6/10/2014 | | X | | |
| F58A | 6/10/2014 | | X | | |
| F59A1U | 6/10/2014 | X | X | X | |
| F62A1 | 6/10/2014 | | X | | |
| F73A1 | 6/11/2014 | X | X | | |
| F74A | 6/10/2014 | | X | | |
| F83A1U | 6/11/2014 | X | X | | |
| F87A2R | 6/11/2014 | X | X | | |
| F88A1U | 6/10/2014 | X | X | | |
| F89A | 6/10/2014 | X | X | | |
| F92A2 | 6/10/2014 | | X | | |
| F97A | 6/11/2014 | X | X | | |
| F98A | 6/11/2014 | X | X | | |
| F123A1 | 6/10/2014 | X | X | | |
| F124A2 | 6/10/2014 | X | X | X | |
| F126A2 | 6/11/2014 | X | X | | |
| F127A1R | 6/11/2014 | | X | X | |
| F129A1 | 6/11/2014 | X | X | | |
| F130A1U | 6/11/2014 | X | X | | |
| F137A1 | 6/11/2014 | X | X | | |
| F138A1U | 6/10/2014 | | X | | |
| F139A1 | 6/10/2014 | | X | | |
| F141A1U | 6/10/2014 | | X | | |
| F142A1 | 6/10/2014 | | X | | |
| F145A1 | 6/10/2014 | X | X | | |
| F155A1U | 6/11/2014 | X | X | | |
| F156A1U | 6/11/2014 | X | X | | |
| F159A1U | 6/11/2014 | X | X | | |
| F160A1U | 6/11/2014 | X | X | | |
| F161A1U | 6/11/2014 | X | X | | |
| F163A1 | 6/11/2014 | X | X | | |
| F164A1 | 6/11/2014 | X | X | | |
| F165A1 | 6/11/2014 | X | X | X | |
| F166A1 | 6/11/2014 | X | X | | |
| F167A1U | 6/11/2014 | X | X | | |
| F169A2 | 6/11/2014 | X | X | | |
| O27A1 | 6/11/2014 | X | X | | |
| O52A2 | 6/11/2014 | | X | | |
| O67A2 | 6/11/2014 | X | X | X | |
| O68A1 | 6/11/2014 | X | X | | |
| O69A2D | 6/11/2014 | | X | | |
| O110A1 | 6/10/2014 | X | X | | |
| O111A2 | 6/10/2014 | X | X | | |
| O112A1 | 6/10/2014 | X | X | | |
| O114A2 | 6/11/2014 | | X | | |
| O118B | 6/10/2014 | | X | | |
| O119A1 | 6/11/2014 | | X | | |
| O120A2 | 6/11/2014 | X | X | | |

**TABLE 5**
**SUMMARY OF GROUNDWATER QUALITY SAMPLING ACTIVITIES**
**June 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well | Sample Date | Sampled on a Self-Directed Basis | 8260B * | Field Duplicate | MS/MSD |
|---|---|---|---|---|---|
| O121A2 | 6/10/2014 | X | X | | |
| O152B | 6/11/2014 | X | X | | |
| O162A2 | 6/11/2014 | X | X | | X |
| OB11-2 | 6/11/2014 | X | X | | |
| P1-A1 | 6/11/2014 | X | X | | |
| P1-A2 | 6/11/2014 | X | X | | |
| P2-A2 | 6/11/2014 | X | X | | |
| P3-A2 | 6/11/2014 | X | X | | |
| P4-A2 | 6/11/2014 | X | X | | |
| P5-A2 | 6/11/2014 | X | X | | |
| T1A | 6/11/2014 | X | X | X | |
| TW-1 | 6/11/2014 | X | X | | |
| TW-2 | 6/11/2014 | X | X | | |
| V8-1 | 6/11/2014 | X | X | | |
| V8-2 | 6/11/2014 | X | X | | |
| V8-3 | 6/10/2014 | X | X | | |
| V8-5 | 6/11/2014 | X | X | | |
| V8-7 | 6/11/2014 | | X | | |
| V8-8 | 6/11/2014 | X | X | X | |
| V8-13B | 6/11/2014 | X | X | | |
| V8-34 | 6/11/2014 | X | X | | |
| V8-34 | 7/1/2014 | X | X | | |
| V-9 | 6/11/2014 | X | X | | |
| V-9X | 6/11/2014 | X | X | | |
| W-3A1U | 6/10/2014 | | X | X | |
| W-7A1U | 6/11/2014 | X | X | | |
| W-13A2 | 6/10/2014 | | X | | |
| W-19A2 | 6/10/2014 | | X | | |
| W158A1U | 6/11/2014 | X | X | | |

**Notes:**

(1) Analyzed using EPA Method 8260B for the EPA Method 8010 list of halogenated VOCs, including Freon 113. EPA Method 8260B superseded EPA Method 8010, which is the analytical method specified in the modified Self-Monitoring Program dated May 4, 2001.

(2) MS/MSD - Matrix Spike/Matrix Spike Duplicate Sample

# TABLE 6
## GROUNDWATER PURGING AND SAMPLING RECORDS
## June 2014
## COE Study Area and Perimeter Area, Palo Alto, California

| Well | Well Diameter (inches) | Purge Method | Date Sampled | Time Sampled | Depth to Water (ft btoc) | Depth to Bottom of Well (ft btoc) | Three Well Volumes (1) (gal) | Amount of Water Removed (gal) | Purged Dry (2) (Y/N) | Temp. (deg C) | Electrical Conductivity (µmoh/cm) | pH (units) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-7 | 6 | Conventional | 6/16/2014 | 12:15 PM | NM | NM | - | 220 | N | 20.2 | 1186 | 6.75 |
| EW-11R | 6 | Conventional | 6/11/2014 | 10:30 AM | NM | NM | - | 100 | N | 19.7 | 1424 | 6.97 |
| EW-12 | 6 | Conventional | 6/11/2014 | 10:40 AM | 16.77 | 26.72 | 45.0 | 45.0 | N | 20.2 | 1483 | 7.04 |
| EW-13 | 6 | Conventional | 6/11/2014 | 10:15 AM | 14.14 | 38.17 | 108.3 | 110 | N | 19.8 | 1477 | 6.96 |
| F126A2 | 4 | Conventional | 6/11/2014 | 9:02 AM | 20.66 | 48.40 | 55.8 | 56 | N | 19.7 | 1340 | 7.19 |
| F137A1 | 2 | Conventional | 6/11/2014 | 9:22 AM | 20.21 | 35.05 | 7.5 | 7.5 | N | 19.6 | 1393 | 7.03 |
| F155A1U | 2 | Low-Flow | 6/11/2014 | 8:44 AM | 17.55 | 20.85 | - (3) | 0.79 | N | 20.2 | 1481 | 6.82 |
| F156A1U | 2 | Low-Flow | 6/11/2014 | 7:04 AM | 19.39 | 23.80 | - (3) | 0.32 | N | 21.3 | 1146 | 6.80 |
| F159A1U | 2 | Low-Flow | 6/11/2014 | 8:16 AM | 18.21 | 26.10 | - (3) | 0.63 | N | 20.4 | 1326 | 6.91 |
| F160A1U | 2 | Low-Flow | 6/11/2014 | 11:09 AM | 17.84 | 25.75 | - (3) | 0.79 | N | 22.6 | 1456 | 6.84 |
| F161A1U | 2 | Low-Flow | 6/11/2014 | 10:41 AM | 17.62 | 26.52 | - (3) | 0.79 | N | 23.0 | 1366 | 6.88 |
| F163A1 | 2 | Low-Flow | 6/11/2014 | 10:07 AM | 14.76 | 37.72 | - (3) | 0.79 | N | 21.2 | 968 | 7.35 |
| F164A1 | 2 | Low-Flow | 6/11/2014 | 9:33 AM | 15.64 | 36.54 | - (3) | 0.79 | N | 20.4 | 1229 | 7.34 |
| F165A1 | 2 | Low-Flow | 6/11/2014 | 7:32 AM | 19.90 | 33.59 | - (3) | 0.63 | N | 20.1 | 1334 | 7.29 |
| F166A1 | 2 | Low-Flow | 6/11/2014 | 8:35 AM | 17.58 | 31.80 | - (3) | 1.19 | N | 20.6 | 1365 | 6.91 |
| F167A1U | 2 | Low-Flow | 6/11/2014 | 8:45 AM | 19.67 | 21.74 | - (3) | 0.63 | N | 19.6 | 1231 | 6.80 |
| F169A2 | 2 | Low-Flow | 6/11/2014 | 8:00 AM | 22.67 | 47.78 | - (3) | 0.95 | N | 20.7 | 1260 | 7.14 |
| F29A1U | 2 | Conventional | 6/11/2014 | 2:10 PM | 19.72 | 25.42 | 3 | 1.2 | Y | 21.9 | 1148 | 6.88 |
| F40A | 2 | Conventional | 6/11/2014 | 9:50 AM | 19.93 | 42.33 | 11.4 | 11.4 | N | 19.8 | 1088 | 7.24 |
| F41A1 | 2 | Conventional | 6/11/2014 | 2:25 PM | 20.10 | 34.60 | 7.5 | 3.8 | Y | 22.9 | 1000 | 7.13 |
| F83A1U | 4 | Conventional | 6/11/2014 | 9:16 AM | 17.22 | 22.03 | 9.6 | 9.6 | N | 19.8 | 1396 | 6.92 |
| F87A2R | 2 | Low-Flow | 6/11/2014 | 9:10 AM | 19.90 | 48.06 | - (3) | 0.63 | N | 20.7 | 1347 | 7.13 |
| F89A | 4 | Conventional | 6/10/2014 | 11:30 AM | 18.02 | 45.48 | 55.5 | 56.0 | N | 20.1 | 1240 | 7.31 |
| O152B | 2 | Conventional | 6/11/2014 | 10:05 AM | 21.64 | 74.48 | 27 | 27 | N | 20.8 | 671 | 7.58 |
| O162A2 | 2 | Low-Flow | 6/11/2014 | 11:20 AM | 23.10 | 24.54 | - (3) | 0.79 | N | 21.0 | 1625 | 6.92 |
| O27A1 | 2 | Conventional | 6/11/2014 | 12:55 PM | 25.60 | 33.47 | 3.9 | 4.0 | N | 20.0 | 1458 | 6.67 |
| OB11-2 | 2 | Conventional | 6/11/2014 | 10:02 AM | 14.96 | 27.39 | 6.3 | 6.3 | N | 18.1 | 1474 | 6.66 |
| P1-A1 | 2 | Conventional | 6/11/2014 | 10:38 AM | 20.66 | 34.26 | 6.9 | 7.0 | N | 20.7 | 1280 | 7.14 |
| P1-A2 | 2 | Conventional | 6/11/2014 | 10:22 AM | 20.68 | 45.45 | 12.6 | 12.6 | N | 20.3 | 1421 | 7.11 |
| P2-A2 | 2 | Conventional | 6/11/2014 | 11:04 AM | 20.48 | 43.89 | 12.0 | 12 | N | 20.2 | 1440 | 7.10 |
| P3-A2 | 2 | Conventional | 6/11/2014 | 11:24 AM | 21.18 | 44.50 | 12.0 | 12.0 | N | 20.1 | 1466 | 7.01 |
| P4-A2 | 2 | Conventional | 6/11/2014 | 2:00 PM | 21.39 | 43.58 | 11.4 | 11.5 | N | 20.8 | 1429 | 7.01 |
| P5-A2 | 2 | Conventional | 6/11/2014 | 1:22 PM | 21.31 | 43.92 | 11.4 | 11.4 | N | 20.6 | 1432 | 7.00 |
| V8-34 | 2 | Conventional | 6/11/2014 | 10:35 AM | 22.37 | 43.32 | 10.8 | 10.8 | N | 19.3 | 1338 | 6.97 |
| V8-34 | 2 | Low-Flow | 7/1/2014 | 8:30 AM | 22.53 | 22.55 | - (3) | 2.4 | N | 15.3 | 1090 | 6.54 |
| V8-34 | 2 | Conventional | 7/1/2014 | 9:20 AM | 22.53 | 22.55 | 10.7 | 11 | N | 16.2 | 1160 | 6.85 |
| W158A1U | 2 | Low-Flow | 6/11/2014 | 2:35 PM | 18.80 | 19.80 | - (3) | 0.21 | Y | 20.9 | 1466 | 7.37 |

**Notes:**

(1) Well Volume = The volume of one well interval is used in calculating the total pre-sample purge. This interval is generally considered to be the length of submerged casing.

(2) Purged Dry = Well completely evacuated and allowed to recharge.

(3) Well purged using low-flow method

**Abbreviations:**

gal = gallons

deg C = degrees Celsius

µmhos/cm = micromhos per centimeter

ft btoc = feet below top of casing

NM = not measured

**TABLE 7**
**PASSIVE DIFFUSION BAG SAMPLER DEPLOYMENT DEPTHS**
**June 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well I.D. | Well Diameter (in) | Well Depth (ft bgs) | Screened Interval (ft bgs) | | Screen Length (ft) | PDBS Deployment Depth (ft bgs) (1) |
|---|---|---|---|---|---|---|
| F21A1U | 2 | 35.0 | 20.00 | 30.00 | 10.0 | 25.0 |
| F22A1U | 2 | 30.0 | 15.00 | 25.00 | 10.0 | 21.0 |
| F32A | 2 | 49.5 | 30.00 | 49.00 | 19.0 | 40.0 |
| F33B | 2 | 76.0 | 66.00 | 76.00 | 10.0 | 71.0 |
| F34A | 2 | 46.0 | 24.00 | 45.50 | 21.5 | 36.0 |
| F36A | 2 | 42.5 | 29.50 | 42.00 | 12.5 | 36.0 |
| F38A | 2 | 43.5 | 27.5 | 43.0 | 15.5 | 35.0 |
| F42A1R | 2 | 35.0 | 29.0 | 35.0 | 6.0 | 30.0 |
| F46A1 | 2 | 43.5 | 33.0 | 43.0 | 10.0 | 37.0 |
| F49A1 | 4 | 42.0 | 32.0 | 42.0 | 10.0 | 38.0 |
| F53A1U | 4 | 27.0 | 17.0 | 27.0 | 10.0 | 23.0 |
| F54A1U | 4 | 29.0 | 22.0 | 29.0 | 7.0 | 25.0 |
| F57A1U | 4 | 26.5 | 14.0 | 26.5 | 12.5 | 20.0 |
| F58A | 4 | 48.5 | 38.0 | 48.0 | 10.0 | 44.0 |
| F59A1U | 4 | 29.5 | 19.0 | 29.0 | 10.0 | 24.0 |
| F61A1U | 2 | 32.5 | 22.5 | 32.5 | 10.0 | 27.0 |
| F62A1 | 2 | 43.0 | 33.0 | 43.0 | 10.0 | 38.0 |
| F63A1U/A1 | 4 | 32.5 | 17.5 | 32.5 | 15.0 | 25.0 |
| F64A1 | 4 | 43.0 | 32.5 | 42.5 | 10.0 | 37.5 |
| F73A1 | 4 | 38.0 | 32.5 | 38.0 | 5.5 | 35.0 |
| F74A | 4 | 46.0 | 35.5 | 45.5 | 10.0 | 40.0 |
| F75A1U | 4 | 27.0 | 15.0 | 26.8 | 11.75 | 21.0 |
| F77A1U | 4 | 29.0 | 18.5 | 28.5 | 10.00 | 23.0 |
| F78A1 | 4 | 34.0 | 22.0 | 34.0 | 12.00 | 27.0 |
| F85A1 | 4 | 39.0 | 27.0 | 39.0 | 12.00 | 33.0 |
| F88A1U | 4 | 29.0 | 14.0 | 29.0 | 15.00 | 21.0 |
| F92A2 | 4 | 56.0 | 47.0 | 56.0 | 9.0 | 51.0 |
| F95A | 4 | 39.5 | 24.5 | 39.5 | 15.0 | 32.0 |
| F97A | 4 | 44.0 | 36.0 | 44.0 | 8.0 | 40.0 |
| F98A | 4 | 42.5 | 33.5 | 42.5 | 9.0 | 39.0 |
| F106A1 | 4 | 35.0 | 25.0 | 35.0 | 10.0 | 30.0 |
| F107A2 | 4 | 43.1 | 38.0 | 43.0 | 5.0 | 40.5 |
| F123A1 | 4 | 38.5 | 28.0 | 38.0 | 10.0 | 34.0 |
| F124A2 | 4 | 47.5 | 42.0 | 47.0 | 5.0 | 44.5 |
| F125A1 | 4 | 30.5 | 20.5 | 30.5 | 10.0 | 26.0 |
| F127A1 | 4 | 37.5 | 32.0 | 37.0 | 5.0 | 35 |
| F129A1 | 4 | 37.0 | 31.5 | 36.5 | 5.0 | 34.0 |
| F130A1U | 4 | 23.4 | 13.0 | 23.0 | 10.0 | 18.0 |
| F131A1 | 4 | 38.3 | 28.0 | 38.0 | 10.0 | 34.0 |
| F133B | 4 | 70.5 | 65.0 | 70.0 | 5.0 | 67.5 |
| F135A1 | 4 | 39.5 | 29.0 | 39.0 | 10.0 | 34.5 |
| F136A1 | 4 | 42.0 | 32.0 | 42.0 | 10.0 | 38.0 |
| F138A1U | 4 | 28.5 | 24.5 | 28.5 | 4.0 | 26.5 |
| F139A1 | 4 | 38.5 | 34.5 | 38.5 | 4.0 | 36.5 |
| F140A1 | 4 | 39.4 | 34.4 | 39.4 | 5.0 | 36.9 |
| F141A1U | 4 | 29.2 | 24.0 | 29.0 | 5.0 | 26.75 |
| F142A1 | 4 | 41.5 | 36.0 | 41.0 | 5.0 | 39.0 |
| F143A1U | 4 | 30.5 | 25.0 | 30.0 | 5.0 | 27.0 |
| F145A1 | 4 | 36.8 | 32.5 | 36.5 | 4.0 | 34.5 |
| F151B | 4 | 79.2 | 74.2 | 79.2 | 5.0 | 76.7 |
| O17B | 4 | 75.2 | 65.7 | 75.2 | 9.5 | 70.4 |
| O28A1* | 2 | 32.0 | 22.0 | 32.0 | 10.0 | 27.0 |
| O52A2 | 4 | 52.5 | 39.0 | 52.5 | 13.5 | 42.75 |
| O67A2 | 4 | 60.0 | 45.0 | 60.0 | 15.0 | 52.0 |
| O68A1 | 4 | 42.0 | 27.0 | 42.0 | 15.0 | 34.0 |
| O69A2D | 4 | 61.5 | 50.0 | 61.5 | 11.5 | 56.0 |
| O70A1 | 4 | 35.5 | 30.0 | 35.5 | 5.5 | 33.0 |
| O100B | 4 | 67.0 | 60.0 | 66.0 | 6.0 | 63.0 |
| O104A1 | 4 | 31.0 | 21.0 | 31.0 | 10.0 | 26.0 |
| O105A2 | 4 | 44.0 | 36.0 | 44.0 | 8.0 | 40.0 |

**TABLE 7**
**PASSIVE DIFFUSION BAG SAMPLER DEPLOYMENT DEPTHS**
**June 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| Well I.D. | Well Diameter (in) | Well Depth (ft bgs) | Screened Interval (ft bgs) | | Screen Length (ft) | PDBS Deployment Depth (ft bgs) (1) |
|---|---|---|---|---|---|---|
| O108A1 | 4 | 30.5 | 20.0 | 30.0 | 10.0 | 25.0 |
| O109A2 | 4 | 45.0 | 37.0 | 45.0 | 8.0 | 41.0 |
| O110A1 | 4 | 33.3 | 23.0 | 33.0 | 10.0 | 28.0 |
| O111A2 | 4 | 46.0 | 38.0 | 46.0 | 8.0 | 42.0 |
| O112A1 | 4 | 33.0 | 25.0 | 33.0 | 8.0 | 28.0 |
| O113A2 | 4 | 47.5 | 37.0 | 47.0 | 10.0 | 42.0 |
| O114A2 | 4 | 43.0 | 38.0 | 43.0 | 5.0 | 40.5 |
| O115A1 | 4 | 31.0 | 25.0 | 31.0 | 6.0 | 27.5 |
| O116A1 | 4 | 24.0 | 16.0 | 23.0 | 7.0 | 19.5 |
| O117A2 | 4 | 38.0 | 30.0 | 38.0 | 8.0 | 34.0 |
| O118B | 4 | 70.5 | 60.0 | 70.0 | 10.0 | 64.0 |
| O119A1 | 4 | 39.5 | 29.0 | 39.0 | 10.0 | 34 |
| O120A2 | 4 | 54.5 | 44.0 | 54.0 | 10.0 | 49.0 |
| O121A2 | 4 | 47.3 | 37.0 | 47.0 | 10.0 | 41.0 |
| O122A2 | 4 | 47.3 | 37.0 | 47.0 | 10.0 | 43.0 |
| RW-1 | 4 | 29.4 | 9.4 | 29.4 | 20.0 | 29.4 |
| RW-2 | 4 | 29.3 | 9.3 | 29.3 | 20.0 | 29.3 |
| RW-4 | 4 | 29.7 | 9.7 | 29.7 | 20.0 | 29.7 |
| RW-5 | 4 | 24.1 | 4.1 | 24.1 | 20.0 | 22.0 |
| RW-6 | 4 | 29.5 | 9.5 | 29.5 | 20.0 | 29.5 |
| V8-1 | 2 | 45.0 | 25.0 | 45.0 | 20.0 | 35.0 |
| V8-2 | 2 | 45.0 | 25.0 | 45.0 | 20.0 | 35.0 |
| V8-3 | 2 | 44.0 | 34.0 | 44.0 | 10.0 | 39.0 |
| V8-4 | 2 | 43.0 | 23.0 | 43.0 | 20.0 | 35.0 |
| V8-5 | 2 | 45.0 | 25.0 | 45.0 | 20.0 | 35.0 |
| V8-6 | 2 | 46.5 | 27.0 | 46.5 | 19.5 | 37.0 |
| V8-7 | 4 | 46.5 | 26.5 | 46.5 | 20.0 | 39.5 |
| V8-8 | 4 | 44.0 | 24.0 | 44.0 | 20.0 | 35.0 |
| V-10 | 2 | 45.0 | 30.0 | 45.0 | 15.0 | 37.0 |
| V8-13B | 4 | 68.0 | 58.0 | 68.0 | 10.0 | 63.0 |
| V8-22 | 4 | 43.5 | 33.5 | 43.5 | 10.0 | 39.0 |
| V-23 | 4 | 40.0 | 30.0 | 40.0 | 10.0 | 35.0 |
| V-33A2D | 4 | 56.5 | 51.0 | 56.0 | 5.0 | 53.5 |
| W-3A1U | 4 | 32.5 | 17.5 | 32.5 | 15.0 | 28.75 |
| W-7A1U | 4 | 27.5 | 15.0 | 27.5 | 12.5 | 21.0 |
| W-10A1U | 2 | 27.8 | 22.5 | 27.5 | 5.0 | 25.0 |
| W-11A1U | 4 | 33.0 | 28.0 | 33.0 | 5.0 | 30.0 |
| W-12A1U-R | 4 | 28.0 | 18.0 | 28.0 | 10.0 | 24.0 |
| W-13A2 | 4 | 52.0 | 42.0 | 52.0 | 10.0 | 48.0 |
| W-16A1 | 4 | 39.5 | 32.0 | 39.5 | 7.5 | 36.0 |
| W-17A2 | 4 | 46.5 | 41.5 | 46.5 | 5.0 | 43.0 |
| W-19A2 | 4 | 53.5 | 43.0 | 53.0 | 10.0 | 50 |
| SH1 | 4 | 35.0 | 20.0 | 35.0 | 15.0 | 28.0 |
| VB-1 | 2 | 35.0 | 16.0 | 35.0 | 19.0 | 25.0 |

**Notes:**

(1) PDBS deployment depth equates to the midpoint of the PDBS. The PDBS is 18 inches long.

* The PDBS deployed in well O28A1 lodged in the well casing in June 2007. The PDBS was subsequently moved to facilitate sampling using a bailer.

**Abbreviations:**

in = inches

ft bgs = Feet below ground surface

PDBS = Passive diffusion bag sampler

**TABLE 8**
**GROUNDWATER SAMPLE COLLECTION QA/QC RESULTS**
**June 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, Califorina**

| | |
|---|---|
| **Who performed the sampling?**<br>**(i.e., firm name, address, phone)** | Blaine Tech Services<br>1680 Rogers Avenue<br>San Jose, CA 95112<br>Phone: 408-573-0555<br>Fax: 408-573-7771<br>Contact: Michael Ninokata |
| **Chain-of-custody forms were completed for all samples?** | Yes, with the exception noted below |
| **Field parameters stabilized prior to taking samples?** | Yes, where applicable to sampling method |
| **Zero head space in sample containers (VOCs only)?** | Yes |
| **Samples were preserved according to analytical method?** | Yes |
| **Required field QA/QC samples were taken?** | |
| **Appropriate number of field duplicates taken?** | Yes |
| **Appropriate number of samples given as MS/MSD samples?** | Yes |
| **Trip blanks included with all sample shipments?** | Yes |
| **Appropriate number of equipment blank samples taken?** | Yes |

| **Explain any "Exception" answers below:** |
|---|
| Analyses for sample C0614-F165A1 were not checked on the COC |
| TB-3 listed 3 VOAs on the COC only 2 VOAs were received |
| Sample containers for sample O69A2D listed a sample time of 1300, while the COC and Field Data Sheets listed a sample time of 1700. |
| |

**Abbreviations:**
QA/QC - quality assurance/quality control
VOCs - Volatile organic compounds
MS/MSD - Matrix spike/matrix spike duplicate

**TABLE 9**
**GROUNDWATER SAMPLE CHEMICAL ANALYSIS QA/QC RESULTS**
**JUNE 2014**
**COE Study Area and Perimeter Area**
**Palo Alto, California**

| | |
|---|---|
| **Who performed analysis?**<br>**(i.e., lab name, address, contact, phone)** | TestAmerica<br>1220 Quarry Lane<br>Pleasanton, California<br>Phone: 925-484-1919<br>Fax: 925-484-1096<br>contact: Afsaneh Salimpour |
| **Analytical methods used?**<br>**(method number and chemical category)** | EPA Method 8260B for Halogenated Volatile Organic Compounds (former EPA Method 8010 list) + Freon 113 |
| **Is the lab state-certified for the above analytical methods?** | Yes |
| **Analysis performed according to standard methods?** | Yes |
| **Sample holding times met?** | Yes |
| **QA/QC analyses run consistent with analytical methods (includes blanks, MS/MSDs, etc.)** | Yes |
| **QA/QC results meet all acceptance criteria?** | Yes |
| **Trip blank samples non-detect for all analytes?** | Yes |
| **Surrogate recovery acceptable to analytical laboratory?** | Yes |
| **MS/MSD samples within acceptance criteria?** | Yes, with the exceptions noted below. |
| **Field duplicate within acceptable relative percent difference?** | Yes |
| **QA/QC results and acceptance criteria on file?** | Yes |

**Explain any "No" answers below:**

Matrix Spike/Matrix Spike Duplicate (MS/MSD) for Batch 161466 was outside control limits for vinyl chloride and cis-1,2-DCE, however the associated Laboratory Control Spike/Laboratory Control Spike Duplicate (LCS/LCSD) met the criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) for Batch 161310 was outside control limits for cis-1,2-DCE and TCE, TCE results exceeded the the calibration range for the MS/MSD, however the associated Laboratory Control Spike/Laboratory Control Spike Duplicate (LCS/LCSD) met the criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) for Batches 161209 and 161334 was outside control limits for TCE, however the associated Laboratory Control Spike/Laboratory Control Spike Duplicate (LCS/LCSD) met the criteria.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) for Batch 161275 was outside control limits for TCE and the TCE result exceeded the the calibration range for the MS/MSD, however the associated Laboratory Control Spike/Laboratory Control Spike Duplicate (LCS/LCSD) met the criteria.

**Abbreviations:**
MDL - Method detection limit
QA/QC - Quality assurance/quality control
MS/MSD - Matrix spike/matrix spike duplicate

**Table 10**
**SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER**
**June 2014**
**COE Area and Perimeter Area**
**Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-7 | | 6/16/2014 | 56 | 920 | 600 | 57 | 62 | ND (< 10) | 120 | 530 | ND (< 10) | 780 | ND (< 10) | |
| EW-8 | | 6/10/2014 | 20 | 950 | 660 | 36 | 68 | ND (< 10) | ND (< 10) | 350 | ND (< 10) | 810 | ND (< 10) | |
| EW-10 | | 6/11/2014 | ND (< 0.50) | 26 | 8.6 | 1.4 | 5.0 | ND (< 0.50) | ND (< 0.50) | 6.7 | ND (< 0.50) | 6.8 | ND (< 0.50) | |
| EW-11R | | 6/11/2014 | 51 | 28 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 170 | ND (< 5.0) | ND (< 5.0) | 200 | |
| EW-12 | | 6/11/2014 | ND (< 0.50) | 5.0 | ND (< 0.50) | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/11/2014 | ND (< 0.50) | 29 | 1.3 | 4.8 | 10 | ND (< 0.50) | ND (< 0.50) | 4.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/11/2014 | ND (< 0.50) | 69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.7 | 0.81 | ND (< 0.50) | ND (< 0.50) | |
| F22A1U | | 6/11/2014 | ND (< 5.0) | 240 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 24 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F22A1U | Dup | 6/11/2014 | ND (< 0.50) | 230 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 27 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/11/2014 | ND (< 0.50) | 30 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/10/2014 | ND (< 0.50) | 50 | ND (< 0.50) | 0.92 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | Dup | 6/10/2014 | ND (< 0.50) | 39 | ND (< 0.50) | 0.69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/11/2014 | ND (< 0.50) | 7.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/11/2014 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F41A1 | | 6/11/2014 | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F42A1R | | 6/10/2014 | 19 | 780 | 800 | 23 | 58 | ND (< 10) | ND (< 10) | 260 | ND (< 10) | 650 | ND (< 10) | |
| F49A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.50 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F59A1U | | 6/10/2014 | 120 | 51 | 1.2 | ND (< 1.0) | 1.2 | ND (< 1.0) | ND (< 1.0) | 6.4 | 1.1 | ND (< 1.0) | ND (< 1.0) | |
| F59A1U | Dup | 6/10/2014 | 110 | 44 | 1.2 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | 6.0 | 0.96 | ND (< 0.50) | 0.74 | |
| F62A1 | | 6/10/2014 | ND (< 0.50) | 51 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.87 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F73A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.7 | ND (< 0.50) | ND (< 0.50) | 1.5 | |
| F74A | | 6/10/2014 | ND (< 0.50) | 33 | ND (< 0.50) | 1.4 | 2.8 | ND (< 0.50) | ND (< 0.50) | 0.90 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F83A1U | | 6/11/2014 | ND (< 0.50) | 66 | 1.7 | 0.83 | 2.4 | ND (< 0.50) | ND (< 0.50) | 8.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2R | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 6/10/2014 | 70 | 18 | 1.0 | 0.51 | 1.5 | ND (< 0.50) | ND (< 0.50) | 7.4 | 0.73 | ND (< 0.50) | ND (< 0.50) | |
| F89A | | 6/10/2014 | ND (< 0.50) | 14 | 0.91 | 0.57 | 2.1 | ND (< 0.50) | ND (< 0.50) | 4.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F97A | | 6/11/2014 | ND (< 0.50) | 310 | 25 | 18 | 22 | ND (< 0.50) | ND (< 0.50) | 56 | 0.72 | 64 | 1.8 | |
| F98A | | 6/11/2014 | ND (< 5.0) | 800 | 5.5 | 14 | 8.6 | ND (< 5.0) | ND (< 5.0) | 250 | ND (< 5.0) | 13 | 21 | |
| F123A1 | | 6/10/2014 | 3.6 | 67 | 26 | 1.2 | 5.1 | ND (< 0.50) | ND (< 0.50) | 8.5 | ND (< 0.50) | 39 | ND (< 0.50) | |
| F124A2 | | 6/10/2014 | ND (< 5.0) | 470 | 85 | 67 | 72 | ND (< 5.0) | ND (< 5.0) | 89 | ND (< 5.0) | 25 | ND (< 5.0) | |
| F124A2 | Dup | 6/10/2014 | ND (< 0.50) | 430 | 78 | 56 | 55 | ND (< 0.50) | ND (< 0.50) | 79 | 1.8 | 20 | ND (< 0.50) | 1,1,2-TCA = 0.59 |
| F126A2 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.1 | 1.3 | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F127A1R | | 6/11/2014 | ND (< 5.0) | 350 | 100 | 26 | 71 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 66 | ND (< 5.0) | |
| F127A1R | Dup | 6/11/2014 | 2.5 | 330 | 100 | 25 | 66 | ND (< 0.50) | ND (< 0.50) | 120 | 1.2 | 64 | ND (< 0.50) | CHLFM = 1.0 |
| F129A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | 37 | 29 | 32 | 0.50 | ND (< 0.50) | 91 | 3.9 | ND (< 0.50) | 2.1 | |
| F130A1U | | 6/11/2014 | ND (< 0.50) | 15 | 0.83 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.56 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F137A1 | | 6/11/2014 | 4.5 | 23 | 9.6 | 1.3 | 2.6 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | 6.5 | ND (< 0.50) | |
| F138A1U | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | 1.9 | ND (< 0.50) | ND (< 0.50) | 6.4 | ND (< 0.50) | ND (< 0.50) | 2.8 | |
| F139A1 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/10/2014 | ND (< 0.50) | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F145A1 | | 6/10/2014 | 3.1 | 68 | 7.0 | 2.3 | 5.2 | ND (< 0.50) | ND (< 0.50) | 16 | 0.63 | 0.90 | ND (< 0.50) | |
| F155A1U | | 6/11/2014 | 3.4 | 38 | 3.8 | 0.62 | 0.74 | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | 1.3 | ND (< 0.50) | |
| F156A1U | | 6/11/2014 | ND (< 0.50) | 59 | 0.53 | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 8.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | | 6/11/2014 | ND (< 0.50) | 7.6 | ND (< 0.50) | 0.61 | 0.57 | ND (< 0.50) | ND (< 0.50) | 33 | 2.6 | ND (< 0.50) | ND (< 0.50) | |
| F160A1U | | 6/11/2014 | 60 | 21 | 1.5 | 0.84 | 2.8 | ND (< 0.50) | ND (< 0.50) | 2.8 | 0.51 | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 6/11/2014 | 0.86 | 20 | 0.68 | 1.1 | 2.3 | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F163A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F164A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | Dup | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F166A1 | | 6/11/2014 | ND (< 0.50) | 120 | 11 | 5.8 | 8.0 | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | 16 | ND (< 0.50) | |
| F167A1U | | 6/11/2014 | ND (< 1.0) | 240 | 55 | 9.4 | 26 | ND (< 1.0) | ND (< 1.0) | 38 | ND (< 1.0) | 44 | ND (< 1.0) | |
| F169A2 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O27A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O52A2 | | 6/11/2014 | ND (< 5.0) | 340 | 51 | 12 | 24 | ND (< 5.0) | ND (< 5.0) | 44 | ND (< 5.0) | 80 | ND (< 5.0) | |
| O67A2 | | 6/11/2014 | 78 | 400 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 300 | 2,400 | ND (< 50) | 440 | ND (< 50) | 1,2,4-TCB = 1,500 |

**Table 10**
**SUMMARY OF DETECTED COMPOUNDS IN GROUNDWATER**
**June 2014**
**COE Area and Perimeter Area**
**Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O67A2 | Dup | 6/11/2014 | 74 | 410 | ND (< 5.0) | 10 | ND (< 5.0) | ND (< 5.0) | 310 | 2,300 | 16 | 430 | ND (< 5.0) | 1,2,4-TCB = 1,500, 1,3-DCB = 5.3, 1,4-DCB = 7.3 |
| O68A1 | | 6/11/2014 | 92 | 470 | 1,100 | 83 | 120 | ND (< 25) | 140 | 760 | ND (< 25) | 2,600 | ND (< 25) | 1,2,4-TCB = 52 |
| O69A2D | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O110A1 | | 6/10/2014 | ND (< 0.50) | 150 | 2.4 | 4.5 | 5.2 | ND (< 0.50) | ND (< 0.50) | 7.1 | ND (< 0.50) | 4.5 | ND (< 0.50) | |
| O111A2 | | 6/10/2014 | ND (< 2.5) | 160 | 71 | 11 | 25 | ND (< 2.5) | ND (< 2.5) | 55 | ND (< 2.5) | 59 | ND (< 2.5) | |
| O112A1 | | 6/10/2014 | ND (< 5.0) | 390 | ND (< 5.0) | ND (< 5.0) | 5.2 | ND (< 5.0) | ND (< 5.0) | 7.7 | ND (< 5.0) | 7.2 | ND (< 5.0) | |
| O114A2 | | 6/11/2014 | ND (< 2.5) | 230 | 15 | 6.1 | 11 | ND (< 2.5) | ND (< 2.5) | 19 | ND (< 2.5) | 49 | ND (< 2.5) | |
| O118B | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O119A1 | | 6/11/2014 | 63 | 20 | 170 | 19 | 17 | ND (< 5.0) | 830 | 390 | ND (< 5.0) | 1,000 | ND (< 5.0) | 1,2,4-TCB = 870. 1,4-DCB = 13 |
| O120A2 | | 6/11/2014 | 13 | 130 | 100 | 21 | 16 | ND (< 5.0) | 16 | 110 | ND (< 5.0) | 110 | ND (< 5.0) | 1,2,4-TCB = 41 |
| O121A2 | | 6/10/2014 | ND (< 0.50) | 25 | 12 | 3.5 | 11 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | CHLFM = 1.2, Freon 11 = 5.9 |
| O152B | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O162A2 | | 6/11/2014 | 42 | 39 | 1.9 | 0.71 | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | Freon 11 = 1.8 |
| OB11-2 | | 6/11/2014 | 53 | 6.0 | 18 | 4.5 | 0.75 | ND (< 0.50) | ND (< 0.50) | 52 | 1.2 | ND (< 0.50) | 20 | |
| P1-A1 | | 6/11/2014 | ND (< 0.50) | 3.9 | ND (< 0.50) | 0.86 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A2 | | 6/11/2014 | ND (< 0.50) | 17 | 4.2 | 1.6 | 2.3 | ND (< 0.50) | ND (< 0.50) | 5.9 | ND (< 0.50) | 2.7 | ND (< 0.50) | |
| P2-A2 | | 6/11/2014 | ND (< 0.50) | 4.1 | 2.2 | 5.4 | 2.1 | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | 0.77 | ND (< 0.50) | |
| P3-A2 | | 6/11/2014 | ND (< 1.0) | 150 | 29 | 11 | 16 | ND (< 1.0) | ND (< 1.0) | 32 | ND (< 1.0) | 62 | ND (< 1.0) | |
| P4-A2 | | 6/11/2014 | ND (< 0.50) | 29 | 1.3 | 1.1 | 1.0 | ND (< 0.50) | ND (< 0.50) | 4.2 | ND (< 0.50) | 1.2 | ND (< 0.50) | |
| P5-A2 | | 6/11/2014 | ND (< 0.50) | 110 | 19 | 10 | 12 | ND (< 0.50) | ND (< 0.50) | 26 | 0.56 | 46 | ND (< 0.50) | |
| T1A | | 6/11/2014 | ND (< 0.50) | 250 | 1.5 | 19 | 23 | ND (< 0.50) | ND (< 0.50) | 160 | 8.4 | ND (< 0.50) | ND (< 0.50) | |
| T1A | Dup | 6/11/2014 | ND (< 2.5) | 240 | ND (< 2.5) | 17 | 17 | ND (< 2.5) | ND (< 2.5) | 150 | 6.3 | ND (< 2.5) | ND (< 2.5) | |
| TW-1 | | 6/11/2014 | 65 | 560 | 610 | 24 | 41 | ND (< 5.0) | 170 | 340 | ND (< 5.0) | 880 | ND (< 5.0) | 1,2,4-TCB = 92 |
| TW-2 | | 6/11/2014 | 70 | 1,700 | 570 | 40 | 38 | ND (< 5.0) | 93 | 310 | ND (< 5.0) | 730 | ND (< 5.0) | |
| V8-1 | | 6/11/2014 | 0.52 | 100 | ND (< 0.50) | 6.4 | 2.9 | ND (< 0.50) | ND (< 0.50) | 16 | 1.0 | ND (< 0.50) | ND (< 0.50) | |
| V8-2 | | 6/11/2014 | ND (< 10) | 8,200 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 26 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-3 | | 6/10/2014 | ND (< 2.5) | 200 | 2.9 | 12 | 7.7 | ND (< 2.5) | ND (< 2.5) | 15 | ND (< 2.5) | 2.6 | ND (< 2.5) | |
| V8-5 | | 6/11/2014 | ND (< 0.50) | 4.1 | 0.52 | 18 | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-7 | | 6/11/2014 | ND (< 2.5) | 160 | ND (< 2.5) | 8.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 280 | ND (< 2.5) | 7.0 | 34 | |
| V8-8 | | 6/11/2014 | ND (< 2.5) | 270 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | Dup | 6/11/2014 | ND (< 2.5) | 260 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-13B | | 6/11/2014 | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-34 | | 6/11/2014 | ND (< 0.50) | 50 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-34* | LF | 7/1/2014 | ND (< 0.5) | 22 | ND (< 0.5) | 18 | 21 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 2.0) | ND (< 0.5) | |
| V8-34* | 3V | 7/1/2014 | ND (< 0.5) | 16 | ND (< 0.5) | 19 | 22 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 2.0) | ND (< 0.5) | |
| V-9 | | 6/11/2014 | ND (< 10) | 2,000 | ND (< 10) | 13 | 10 | ND (< 10) | ND (< 10) | 470 | ND (< 10) | ND (< 10) | 65 | |
| V-9X | | 6/11/2014 | ND (< 10) | 1,700 | ND (< 10) | 12 | 14 | ND (< 10) | ND (< 10) | 400 | ND (< 10) | ND (< 10) | 72 | |
| W-3A1U | | 6/10/2014 | ND (< 0.50) | 66 | 1.6 | 0.60 | 1.8 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-3A1U | Dup | 6/10/2014 | ND (< 0.50) | 62 | 1.5 | 0.57 | 1.7 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-7A1U | | 6/11/2014 | 0.80 | 40 | 1.5 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | 0.62 | ND (< 0.50) | |
| W-13A2 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/10/2014 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W158A1U | | 6/11/2014 | ND (< 0.50) | 26 | 0.53 | ND (< 0.50) | 0.77 | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

**Notes:**
Analyzed using EPA Method 8260B for the EPA Method 8010 list of halogenated VOCs, including Freon 113. EPA Method 8260B superseded EPA Method 8010, which is the analytical method specified in the modified Self-Monitoring Program dated May 4, 2001.
All data reported in µg/L unless otherwise noted.
Dup = Field Duplicate
EB = Equipment Blank
TB = Trip Blank
LF = Flow-Flow Purge Method
3V = 3-volume conventional purge
* = Due to anomolous results from the sample collected on June 11, 2014, V8-34 was resampled on July 1, 2014 using low-flow and 3-volume conventional purge methods.

**Abbreviations:**
TCE = Trichloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
PCE = Perchloroethene (Tetrachloroethene)
Freon 113 = 1,1,2-Trichloro-1,2,2-Trifluoroethane
1,2-DCB = 1,2-Dichlorobenzene
CT = Carbon Tetrachloride
CHLBZ = Chlorobenzene
CHLFM = Chloroform
1,3-DCB = 1,3-Dichlorobenzene
1,4-DCB = 1,4-Dichlorobenzene
1,2-DCA = 1,2-Dichloroethane
trans-1,2-DCE = trans-1,2-Dichloroethene
1,2,4-TCB = 1,2,4-Trichlorobenzene
Freon 11 = Trichlorofluoromethane
VC = Vinyl Chloride

**TABLE 11**
**SUMMARY OF SIGNIFICANT INCREASES***
**June and August 2014**
**COE Study Area and Perimeter Area, Palo Alto, California**

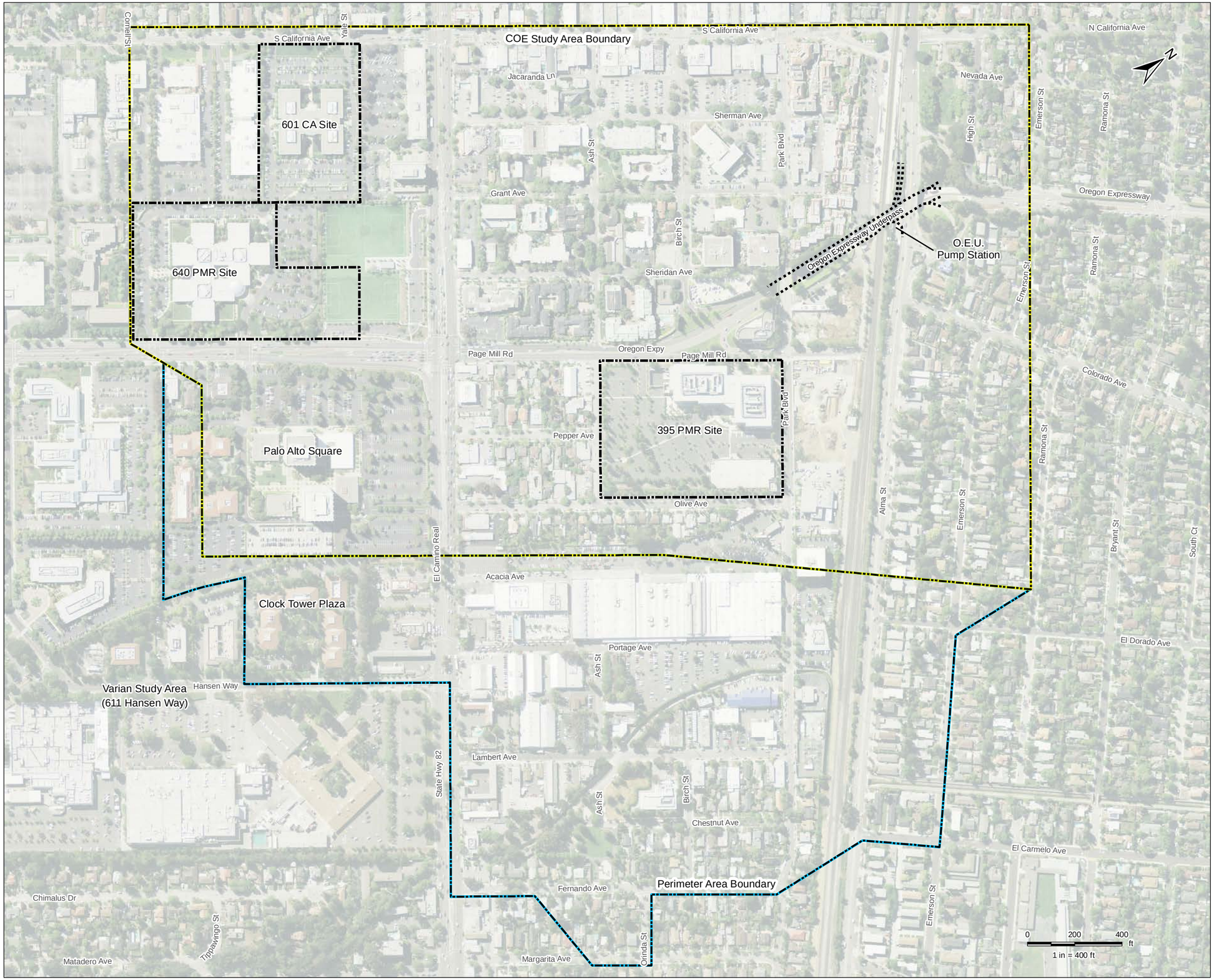
| Well | Date Sampled | Analyte | Current Detection (µg/L) | Previous Maximum Detection (µg/L) | Comment |
|---|---|---|---|---|---|
| EW-15 | 13-Aug-14 | Vinyl chloride | 1.7 | 0.62 | Trial Shutdown |
| EW-16 | 13-Aug-14 | cis-1,2-Dichloroethene | 200 | 62.3 | Trial Shutdown |
| F22A1U | 11-Jun-14 | cis-1,2-Dichloroethene | 24 | 12 | 601 California EISB |
| F98A | 11-Jun-14 | Vinyl chloride | 21 | 3 | 601 California EISB |
| F124A2 | 10-Jun-14 | 1,1,1-Trichloroethane | 85 | 27 | |
| | | Trichlorotrifluoroethane (Freon 113) | 25 | 6.9 | |
| F156A1U | 11-Jun-14 | 1,1-Dichloroethane | 1.7 | ND (<0.50) | First Detection |
| | | 1,1,1-Trichloroethane | 0.53 | ND (<0.50) | |
| F160A1U | 11-Jun-14 | trans-1,2-Dichloroethene | 0.51 | ND (<0.50) | First Detection |
| O68A1 | 11-Jun-14 | 1,2-Dichlorobenzene | 140 | 30 | |
| | | 1,2,4-Trichlorobenzene | 52 | 23 | |
| P5-A2 | 11-Jun-14 | trans-1,2-Dichloroethene | 0.56 | ND (<5.0) | |
| T1A | 11-Jun-14 | cis-1,2-Dichloroethene | 160 | 42 | |
| | | trans-1,2-Dichloroethene | 8.4 | 3.3 | |
| TW-1 | 11-Jun-14 | 1,1-Dichloroethane | 24 | 11 | Active Extraction Well at 640 Page Mill Road Site |
| | | 1,1-Dichloroethene | 41 | 13 | |
| | | cis-1,2-Dichloroethene | 340 | 130 | |
| | | 1,2,4-Trichlorobenzene | 92 | 18 | |
| | | 1,1,1-Trichloroethane | 610 | 76 | |
| | | Trichlorotrifluoroethane (Freon 113) | 880 | 270 | |
| TW-2 | 11-Jun-14 | 1,2-Dichlorobenzene | 93 | ND (<50) | Active Extraction Well at 640 Page Mill Road Site |
| | | cis-1,2-Dichloroethene | 310 | 130 | |
| V-9 | 11-Jun-14 | Vinyl chloride | 65 | 3 | 601 California EISB |

**Notes:**
*A signicant increase is noted if the current sample result is greater than two times the historical maximum
ND = not previously detected above laboratory reporting limit(s). See Appendix B for laboratory reporting limits.
EISB = Enhanced In-Situ Bioremediation
MCL = Maximum Contaminant Level

# FIGURES

Annual Groundwater Self-Monitoring Report
California-Olive-Emerson (COE) Area
Palo Alto, California
PN: 185702767.200.0034
September 30, 2014

Stantec




Stantec

Legend
- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary

Notes
1. Coordinate System:
   NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.

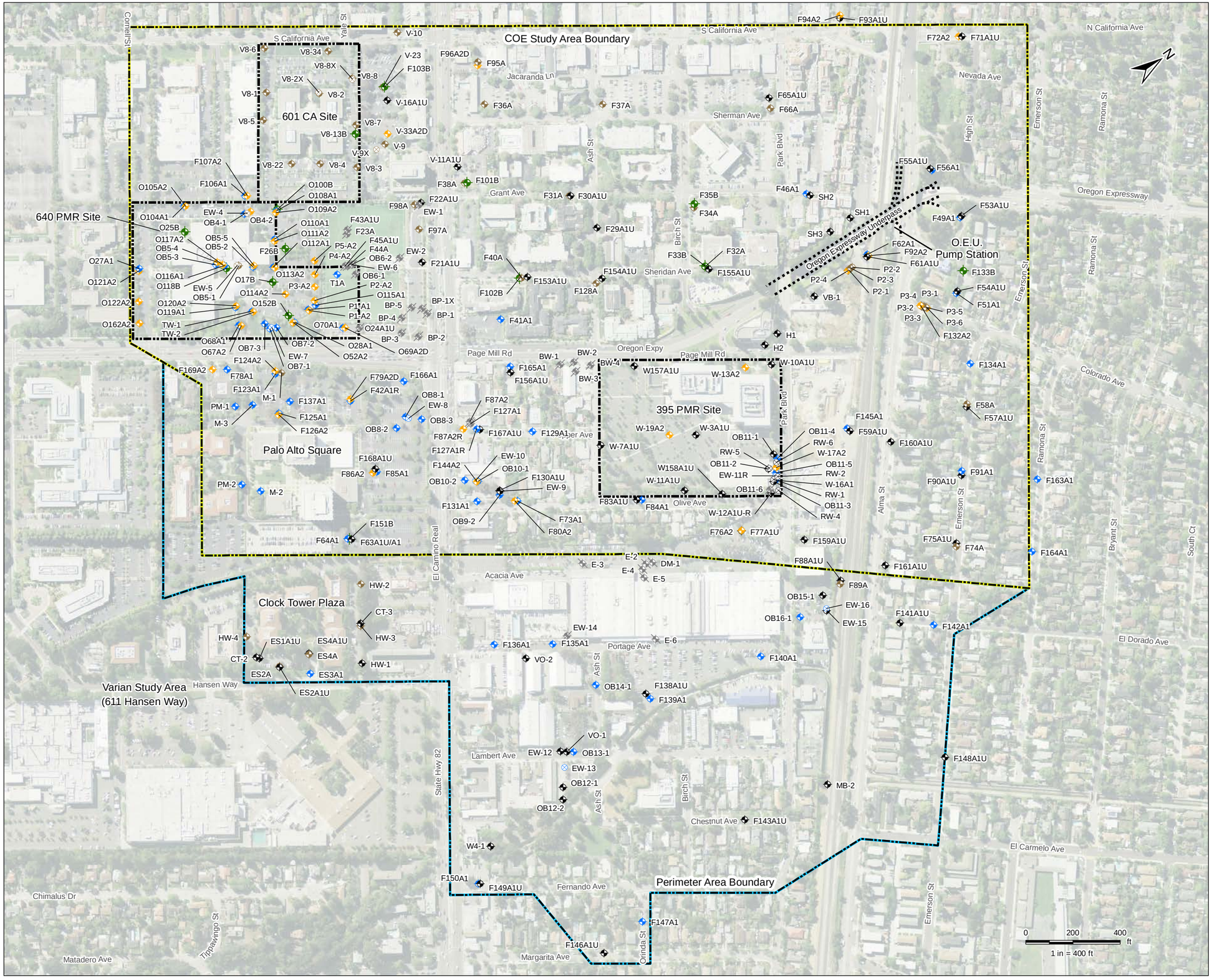
September 2014
185702767

Client/Project
Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

Figure No.
1

Title
Site Location

\\cd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702367\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig01_SiteLocation.mxd
Revised: 2014-09-15 By: mkirkpatrick




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1U Zone Monitoring Well
- A1U Zone Extraction Well
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- A2 Zone Monitoring Well
- A2 Zone Extraction Well
- B Zone Monitoring Well
- Decommissioned Monitoring or Extraction Well
- Destroyed Monitoring Well

Notes

1. Coordinate System:
   NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

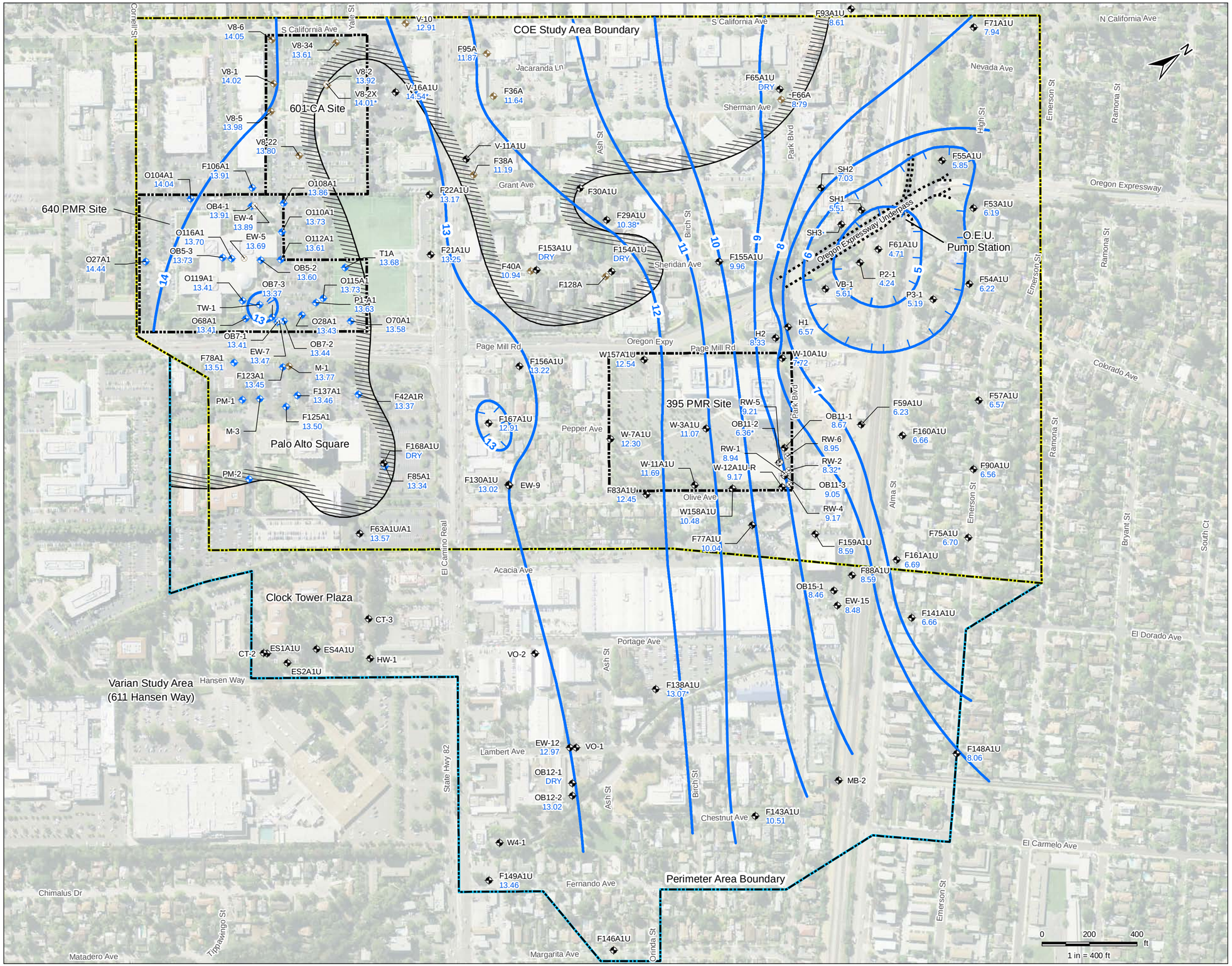
Figure No.

2

Title

Site Plan

\\cd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig02_SitePlan.mxd
Revised: 2014-09-15 By: mkirkpatrick




Stantec

**Legend**

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1U Zone Monitoring Well
- A1U Zone Extraction Well
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- Approximate Extent of Unsaturated A1 Upper Zone
- Groundwater Elevation Contour (Feet MSL)
- 13.22 Groundwater Elevation (Feet MSL)
- NM Not Measured
- DRY Well Dry When Monitored
- * Data Not Used in Contouring

**Notes**

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screed in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

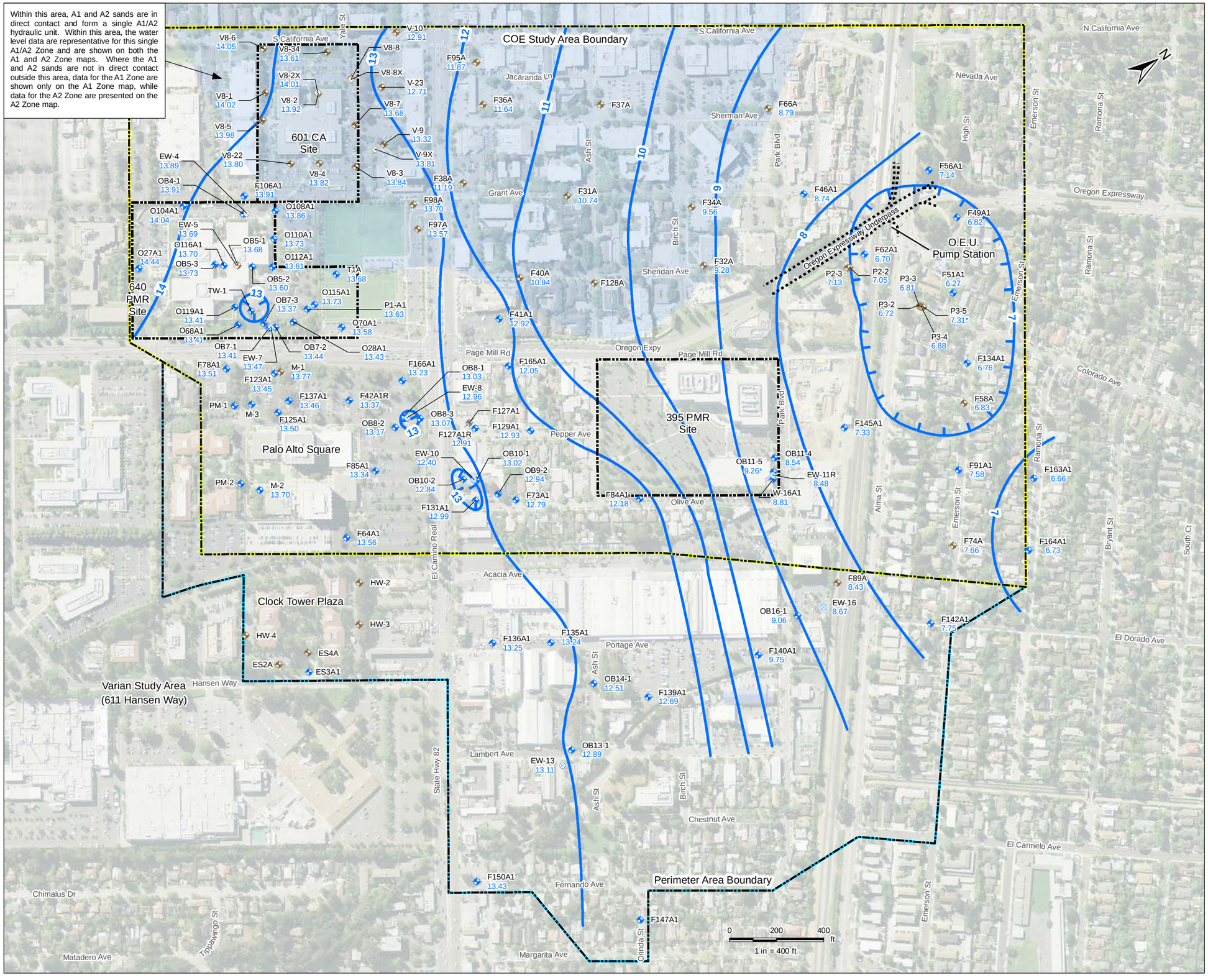
Figure No.

**3**

Title

**Groundwater Elevation Contours First Encountered Groundwater – June 10, 2014**

\\ cd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig03_GrdwElevs.mxd
Reveied: 2014-09-15 By: mkirkpatrick




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- Decommissioned Monitoring or Extraction Well
- 8 Groundwater Elevation Contour (Feet MSL)
- Groundwater Depression
- 9.09 Groundwater Elevation (Feet MSL)
- NM Not Measured
- * Not Used in Contouring

Notes

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

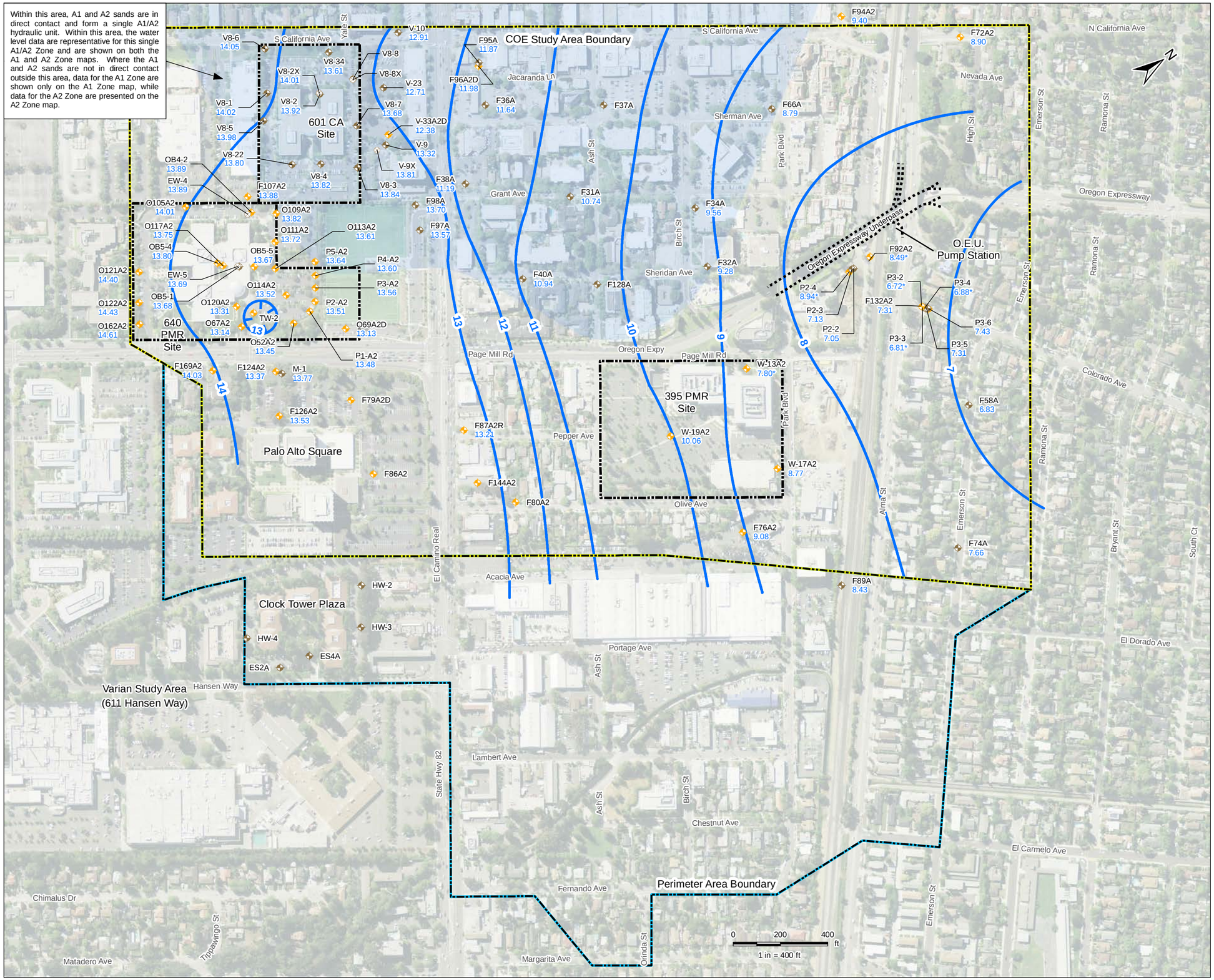
Figure No.

4

Title

Groundwater Elevation Contours
A1 Zone - June 10, 2014

\\cd1004-f01\WorK_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig04_GWElev_A1Zone.mxd
Revised: 2014-09-15 By: mkirkpatrick




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A Zone Monitoring Well
- A Zone Extraction Well
- A2 Zone Monitoring Well
- A2 Zone Extraction Well
- 8 Groundwater Elevation Contour (Feet MSL)
- Groundwater Depression
- 9.09 Groundwater Elevation (Feet MSL)
- NM Not Measured
- * Not Used in Contouring

Notes

1. Coordinate System:
   NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

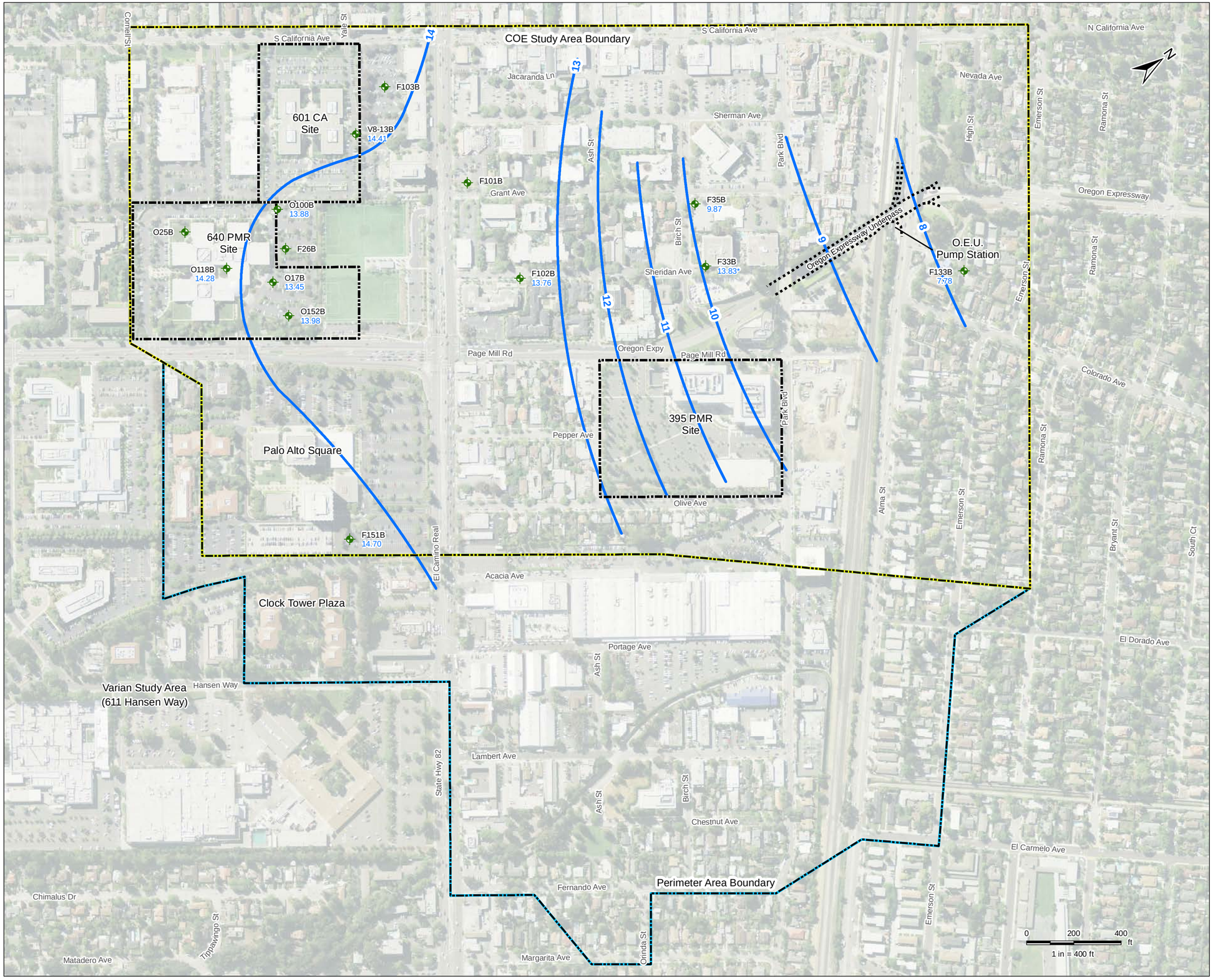
Figure No.

5

Title

Groundwater Elevation Contours
A2 Zone - June 10, 2014

\\cd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig05_GWElev_A2Zone.mxd
Revised: 2014-09-16 By: mkirkpatrick




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- B Zone Monitoring Well
- 8 Groundwater Elevation Contour (Feet MSL)
- 9.09 Groundwater Elevation (Feet MSL)
- NM Not Measured
- * Not Used in Contouring

Notes

1. Coordinate System:
   NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

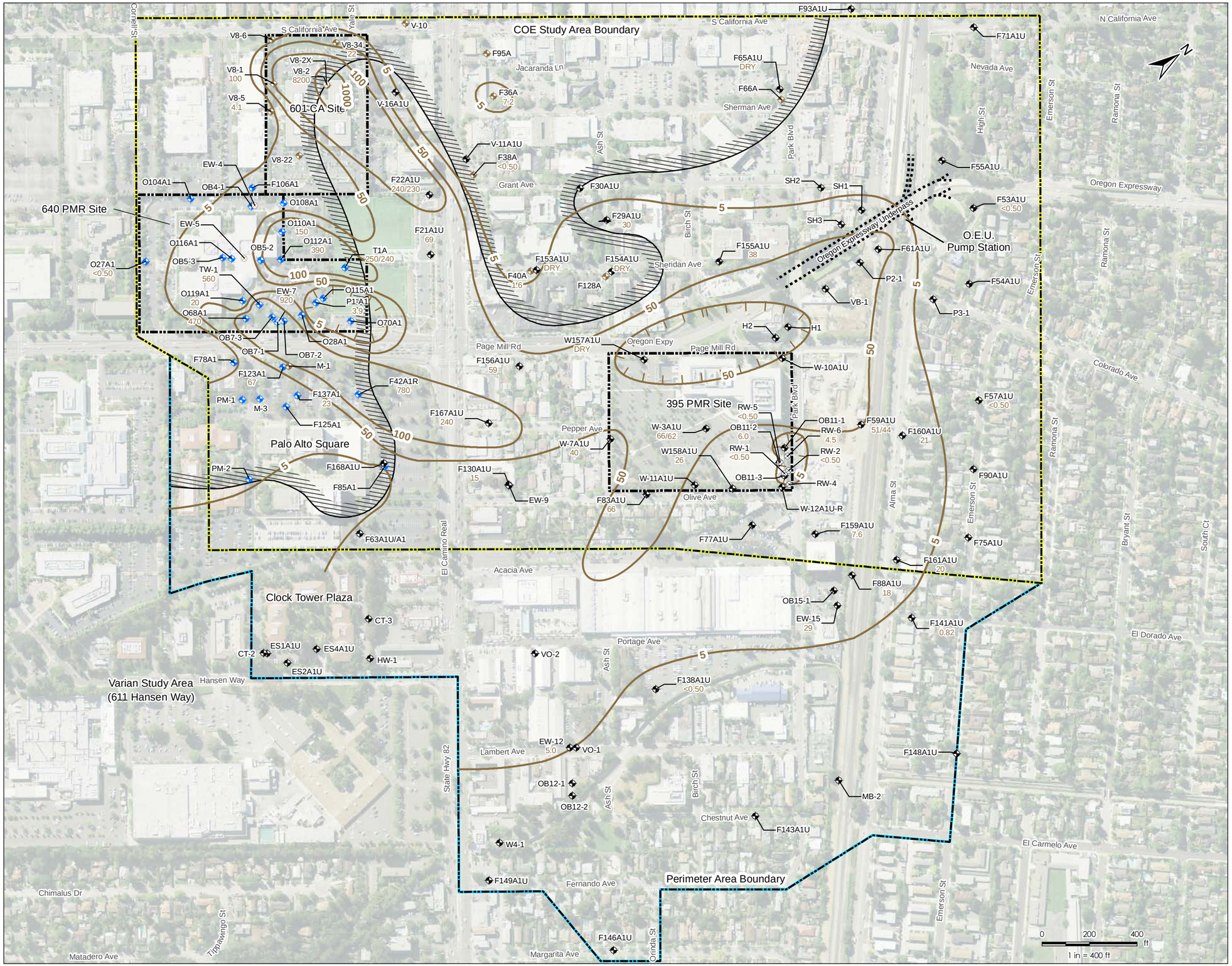
Figure No.

6

Title

Groundwater Elevation Contours
B Zone - June 10, 2014

\\cd1004-f01\WorK_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig06_GWElev_BZone.mxd
Revised: 2014-09-15 By: mkirkpatrick




Stantec

**Legend**

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1U Zone Monitoring Well
- A1U Zone Extraction Well
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- Approximate Extent of Unsaturated A1 Upper Zone
- TCE Isoconcentration Contour (µg/L)
- 25 TCE Concentration (µg/L)
- NM Not Measured
- DRY Well Dry or Insufficient Water to Sample

**Notes**

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screed in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

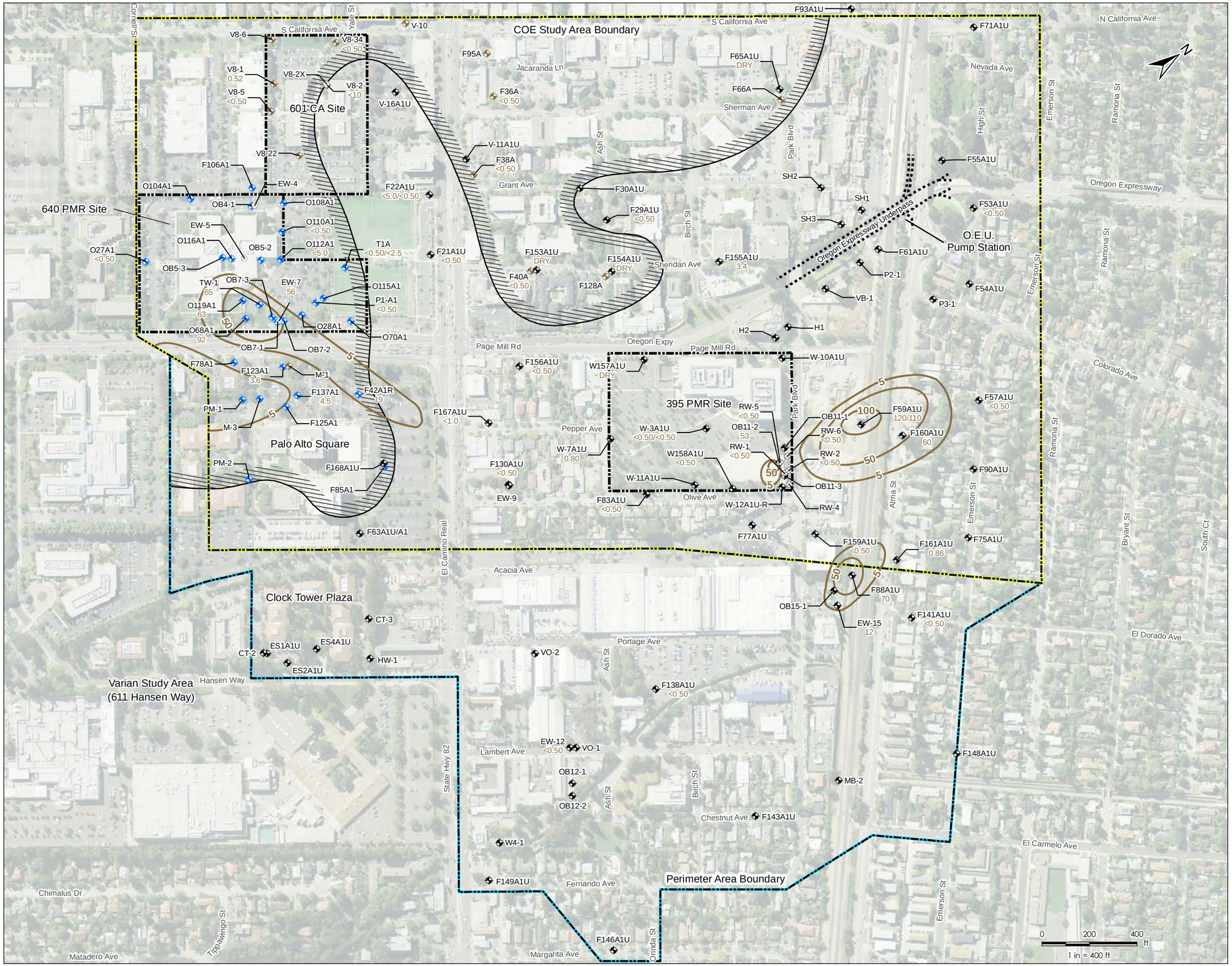
Figure No.

**7**

Title

**TCE Concentration Contours First Encountered Groundwater – Second Quarter 2014**

\\cd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702367\Drawing\MXD\COE\Annual Report 2014\2014091\Edits\185702767_COE2014_Fig07_TCEConcs.mxd
Revised: 2014-09-15 By: mkirkpatrick




Stantec

**Legend**

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1U Zone Monitoring Well
- A1U Zone Extraction Well
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- Approximate Extent of Unsaturated A1 Upper Zone
- PCE Isoconcentration Contour (µg/L)
- 25 PCE Concentration (µg/L)
- NM Not Measured
- DRY Well Dry or Insufficient Water to Sample

**Notes**

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screed in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

Figure No.

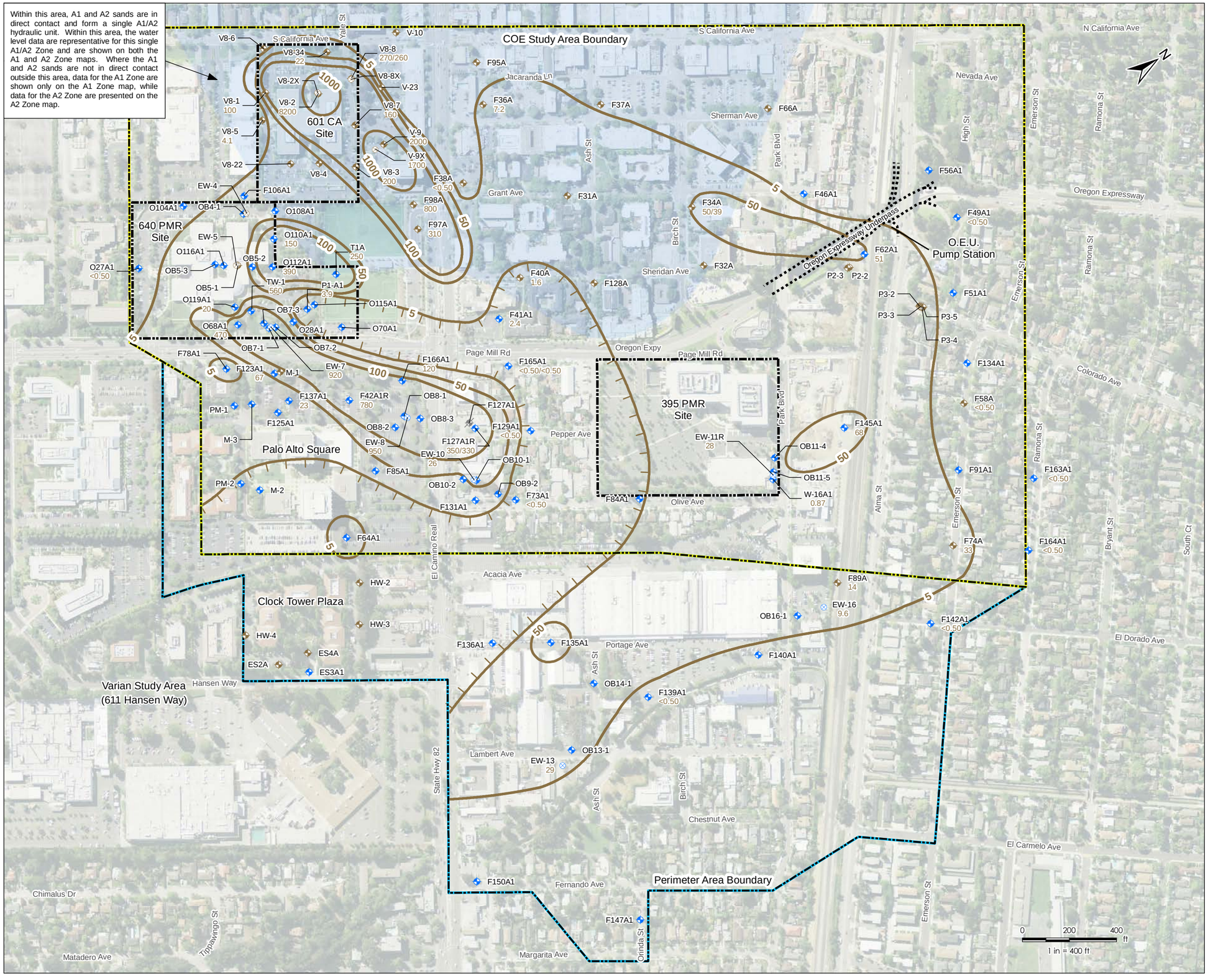
**8**

Title

**PCE Concentration Contours First Encountered Groundwater – Second Quarter 2014**

\\cd1004-01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702367\Drawing\MXD\COE\Annual Report 2014\2014091SEdits\185702767_COE2014_Fig08_PCEConcs.mxd
Revised: 2014-09-26 By: mkirkpatrick

Within this area, A1 and A2 sands are in direct contact and form a single A1/A2 hydraulic unit. Within this area, the water level data are representative for this single A1/A2 Zone and are shown on both the A1 and A2 Zone maps. Where the A1 and A2 sands are not in direct contact outside this area, data for the A1 Zone are shown only on the A1 Zone map, while data for the A2 Zone are presented on the A2 Zone map.




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- Decommissioned Monitoring or Extraction Well
- TCE Isoconcentration Contour (µg/L)
- 9.09 TCE Isoconcentration (µg/L)
- NM Not Measured
- <0.50 Not Detected Above Specified Reporting Limit
- * Not Used in Contouring
- 240/230 Sample Concentration (ug/L) / Duplicate Sample Concentration (ug/L)

Notes

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

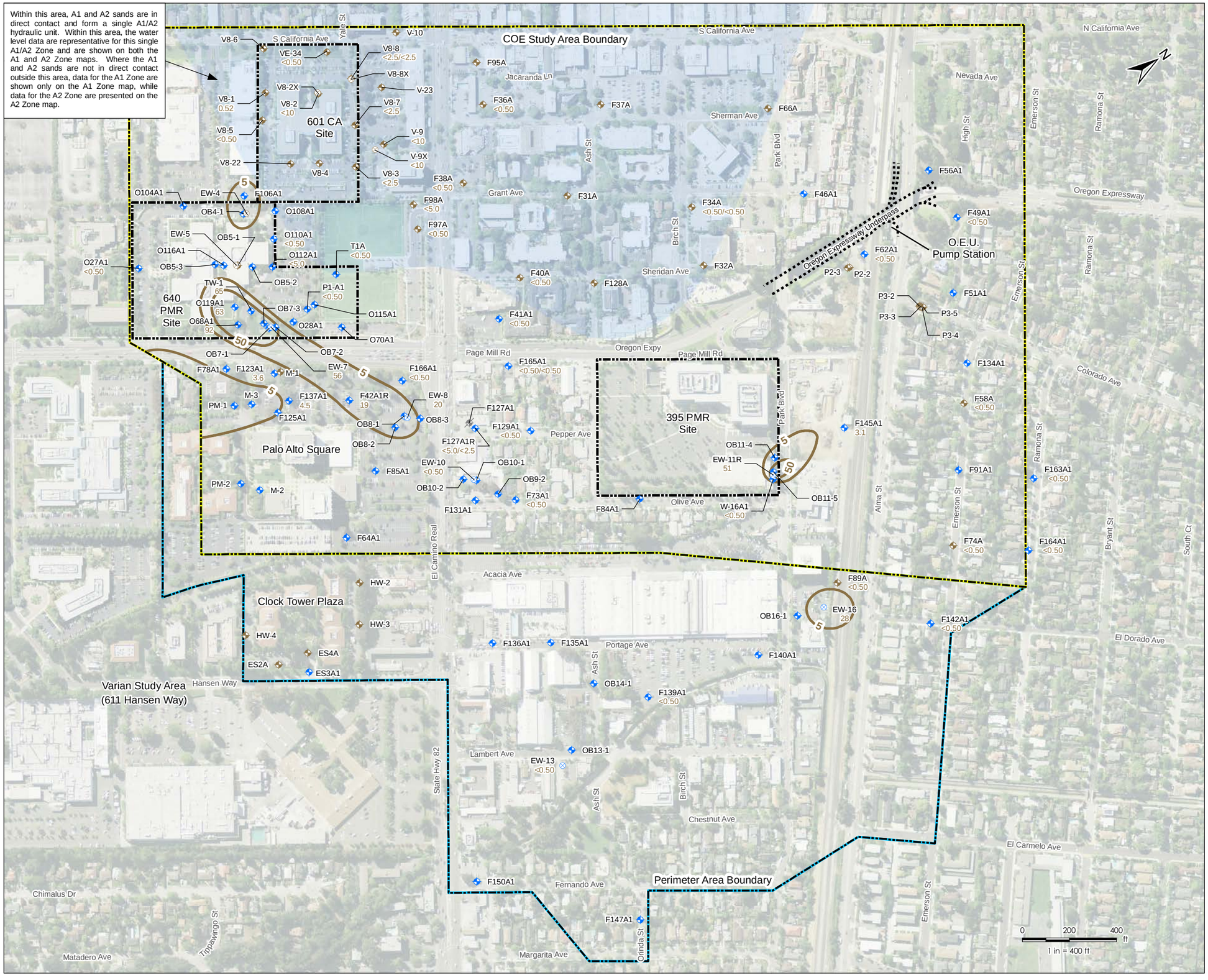
Figure No.

9

Title

TCE Concentration Contours
A1 Zone - Second Quarter 2014

\\cd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig09_TCE_A1Zone.mxd
Revised: 2014-09-22 By: mkirkpatrick




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A1 Zone Monitoring Well
- A1 Zone Extraction Well
- A Zone Monitoring Well
- A Zone Extraction Well
- Decommissioned Monitoring or Extraction Well
- PCE Isoconcentration Contour (µg/L)
- 9.09 PCE Isoconcentration (µg/L)
- NM Not Measured
- <0.50 Not Detected Above Specified Reporting Limit
- * Not Used in Contouring
- 240/230 Sample Concentration (ug/L) / Duplicate Sample Concentration (ug/L)

Notes

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

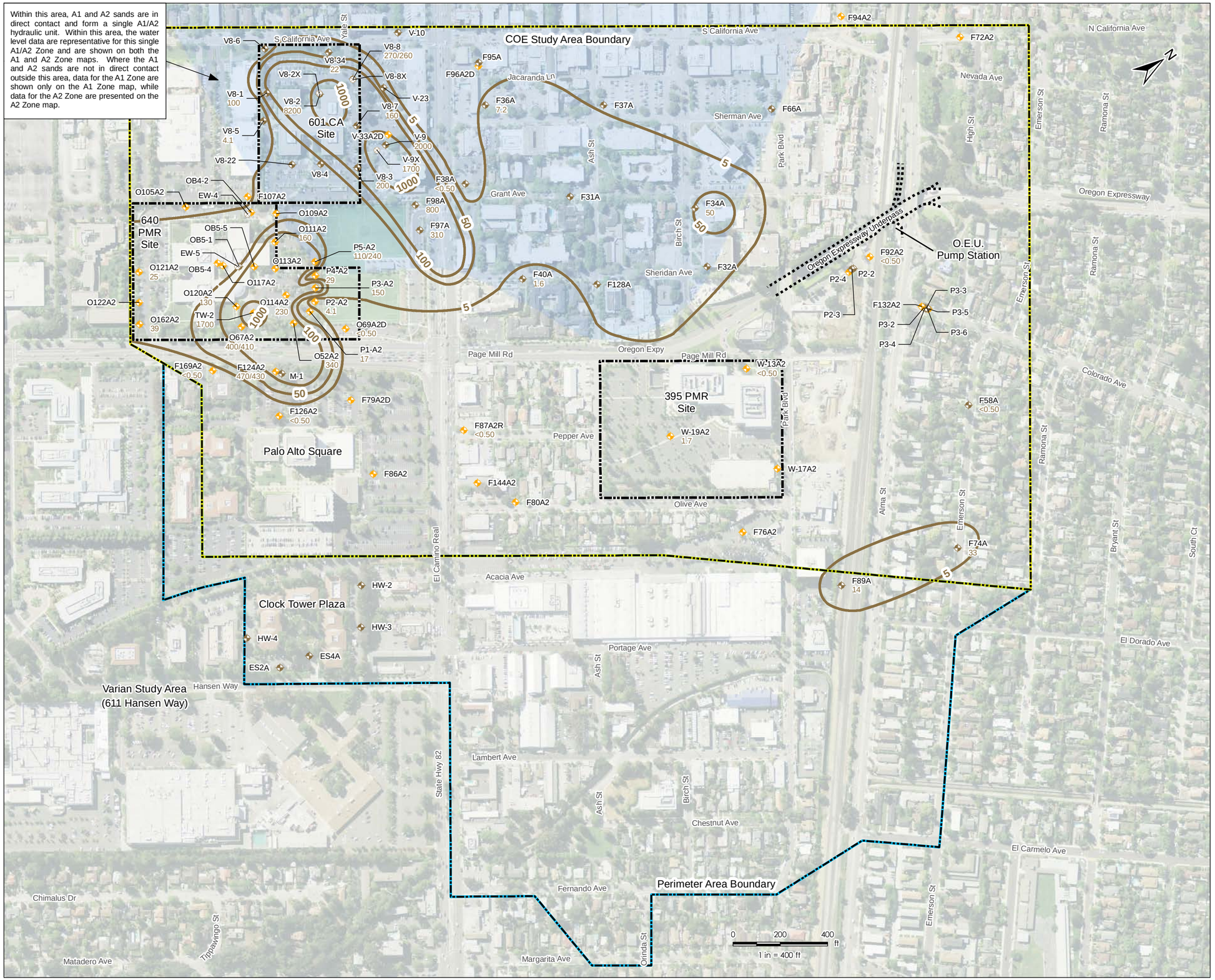
Figure No.

10

Title

PCE Concentration Contours
A1 Zone - Second Quarter 2014

\\ccd1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702367\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig10_PCE_A1Zone.mxd
Revised: 2014-09-26 By: mkirkpatrick




Stantec

Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A Zone Monitoring Well
- A Zone Extraction Well
- A2 Zone Monitoring Well
- A2 Zone Extraction Well
- TCE Isoconcentration Contour (µg/L)
- 9.09 TCE Isoconcentration (µg/L)
- NM Not Measured
- <0.50 Not Detected Above Specified Reporting Limit
- * Not Used in Contouring
- 240/230 Sample Concentration (ug/L) / Duplicate Sample Concentration (ug/L)

Notes

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

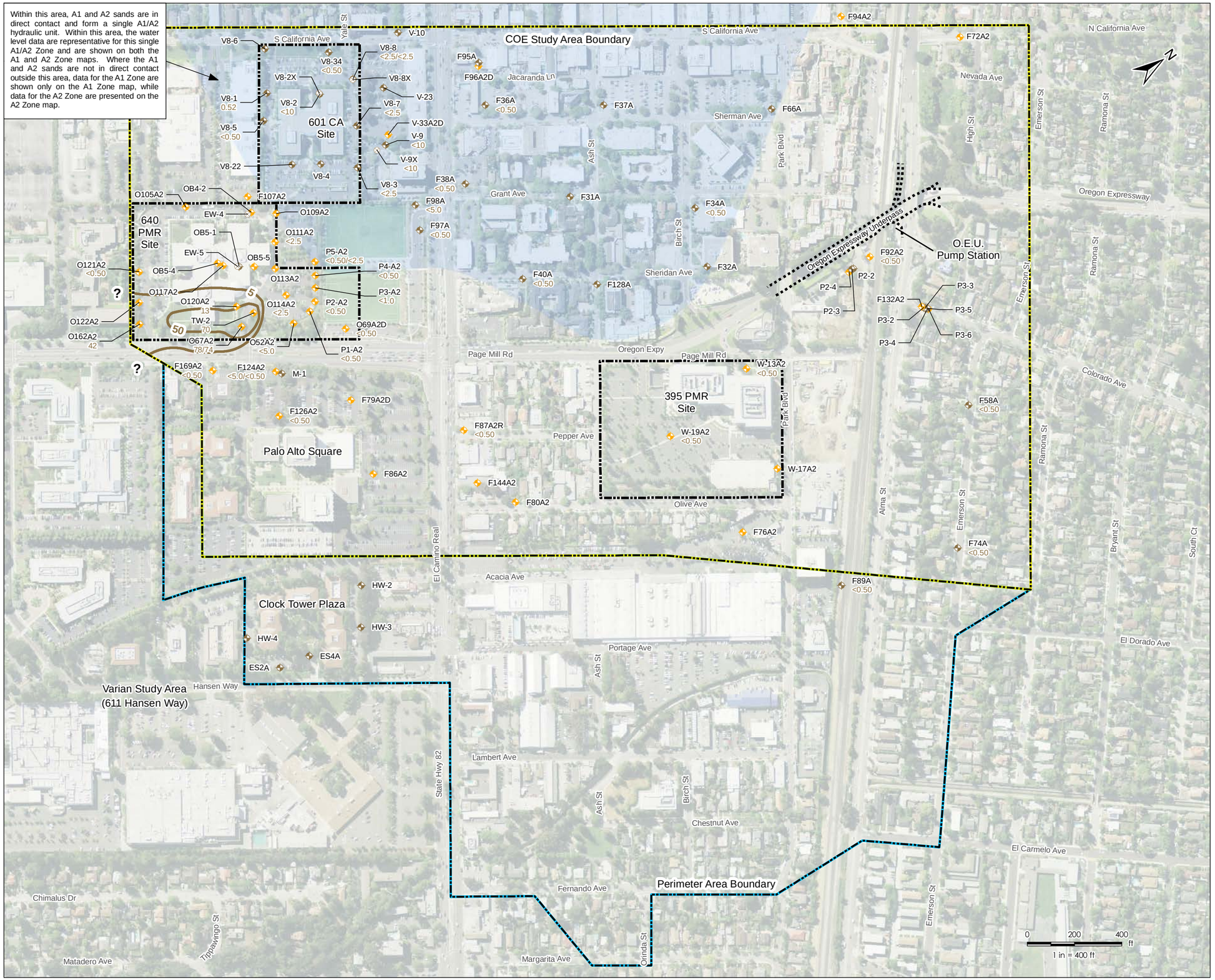
Figure No.

11

Title

TCE Concentration Contours
A2 Zone - Second Quarter 2014

\\ca1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig11_TCE_A2Zone.mxd
Revised: 2014-09-15 By: mkirkpatrick




Stantec

## Legend

- Site Boundary
- COE Study Area Boundary
- Perimeter Area Boundary
- A Zone Monitoring Well
- A Zone Extraction Well
- A2 Zone Monitoring Well
- A2 Zone Extraction Well
- PCE Isoconcentration Contour (µg/L)
- 9.09 PCE Isoconcentration (µg/L)
- NM Not Measured
- <0.50 Not Detected Above Specified Reporting Limit
- * Not Used in Contouring
- 240/230 Sample Concentration (ug/L) / Duplicate Sample Concentration (ug/L)

## Notes

1. Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet
2. Aerial imagery provided by Digital Globe, 2010.
3. "D" suffix indicates well screened in deep subunit.
4. "OB" prefixes indicates observation well for extraction pumping.
5. "P" prefix indicates observation well for Oregon Expressway Subdrain Pumping.
6. Wells without data were not scheduled to be sampled during this event.

September 2014
185702767

Client/Project

Hewlett-Packard Company and Varian Medical Systems, Inc.
COE Study Area and Perimeter Area
Palo Alto, Santa Clara County, California

Figure No.

12

Title

# PCE Concentration Contours A2 Zone - Second Quarter 2014

\\ca1004-f01\Work_group\01221\active\122140012_data_base_mgmt\Databases\185702767\Drawing\MXD\COE\Annual Report 2014\20140915Edits\185702767_COE2014_Fig12_PCE_A2Zone.mxd
Revised: 2014-09-15 By: mkirkpatrick

# APPENDIX A

Annual GWET System VOC Mass Removal by Site
Annual Groundwater Self-Monitoring Report
California-Olive-Emerson (COE) Area
Palo Alto, California
PN: 185702767.200.0034
September 30, 2014

Stantec

# APPENDIX A
## ANNUAL GWET SYSTEM VOC MASS REMOVAL BY SITE
COE Study Area and Perimeter Area, Palo Alto, California

| Year | 640 Page Mill Road | 601 California Avenue | 395 Page Mill Road | EW-12, EW-13, EW-14 | EW-15, EW-16 |
|---|---|---|---|---|---|
| 1999 | 82.06 lbs<br>0.22 lbs/day (1) | 92.27 lbs<br>0.25 lbs/day | 78 lbs<br>0.21 lbs/day | 47.72 lbs<br>0.13 lbs/day | 17.32 lbs<br>0.05 lbs/day |
| 2000 | 64.61 lbs<br>0.18 lbs/day | 79.39 lbs<br>0.22 lbs/day | 22.24 lbs<br>0.06 lbs/day | 21.09 lbs (2)<br>0.06 lbs/day (2) | 12.38 lbs<br>0.03 lbs/day |
| 2001 | 98.45 lbs<br>0.27 lbs/day | 81.80 lbs<br>0.22 lbs/day | 25.17 lbs<br>0.07 lbs/day | 10.64 lbs (2)<br>0.03 lbs/day (2) | 11.27 lbs<br>0.03 lbs/day |
| 2002 | 158.2 lbs<br>0.43 lbs/day | 87.54 lbs<br>0.25 lbs/day | 22.23 lbs<br>0.06 lbs/day | 9.97 lbs (2)<br>0.03 lbs/day (2) | 10.40 lbs<br>0.03 lbs/day |
| 2003 | 122.53 lbs<br>0.33 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 8.15 lbs (2)<br>0.02 lbs/day (2) | 12.97 lbs<br>0.04 lbs/day |
| 2004 | 191.64 lbs<br>0.53 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 7.09 lbs<br>0.02 lbs/day | 11.13 lbs<br>0.03 lbs/day |
| 2005 | 171.91 lbs<br>0.47 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 36.18 lbs<br>0.10 lbs/day | 13.24 lbs<br>0.04 lbs/day |
| 2006 | 38.45 lbs<br>0.10 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 4.42 lbs<br>0.01 lbs/day |
| 2007 | 287.29 lbs<br>0.80 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 8.39 lbs<br>0.02 lbs/day |
| 2008 | 342.43 lbs<br>0.95 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 12.90 lbs<br>0.04 lbs/day |
| 2009 | 487.98 lbs<br>1.34 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 14.03 lbs<br>0.04 lbs/day |
| 2010 | 375.33 lbs<br>1.22 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 7.23 lbs<br>0.02 lbs/day |
| 2011 | 186.96 lbs<br>0.62 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 8.77 lbs<br>0.02 lbs/day |
| 2012 | 260.33 lbs<br>0.78 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 10.85 lbs<br>0.02 lbs/day |
| 2013 | 552.91 lbs<br>1.52 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 0.00 lbs<br>0.00 lbs/day | 2.30 lbs<br>0.03 lbs/day |

**Notes:**

(1) lbs/day was calculated by dividing the mass removal at a site by the number of days in the year.

(2) This estimated mass/removal rate has been revised from that presented in previous monitoring reports in order to correct a calculation error.

**Abbreviations:**

lbs = pounds

lbs/day = pounds per day

GWET = Groundwater Extraction and Treatment

# APPENDIX B

Selected Compounds from Historical Records
Annual Groundwater Self-Monitoring Report
California-Olive-Emerson (COE) Area
Palo Alto, California
PN: 185702767.200.0034
September 30, 2014

Stantec

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BP-3 | | 10/25/1991 | ND (< 0.5) | 19 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 17 | ND (< 0.5) | ND (< 0.5) | 1.6 | |
| BP-3 | | 12/10/1991 | ND (< 5) | 32 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 13 ; Benzene = 28 |
| BP-3 | | 3/12/1992 | ND (< 1) | 23 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 10 | ND (< 1) | ND (< 1) | ND (< 1) | |
| BP-3 | | 6/3/1992 | ND (< 0.5) | 7.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 6.4 | ND (< 0.5) | ND (< 0.5) | 0.5 | |
| BP-3 | | 9/10/1992 | ND (< 0.5) | 9.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| BP-3 | | 12/2/1992 | ND (< 5) | 7.1 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Benzene = 8.9 |
| BP-3 | | 3/2/1993 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| BW-1 | | 7/30/1991 | ND (< 0.5) | 110 | 16 | 12 | ND (< 1) | 0.5 | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| | | | | | | | | | | | | | | |
| BW-4 | | 11/7/1991 | ND (< 2.5) | 420 | 170 | 16 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 160 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| BW-4 | | 12/12/1991 | ND (< 5) | 420 | 160 | 16 | - | ND (< 5) | - | - | - | 7 | ND (< 10) | MC = 24 |
| BW-4 | | 3/4/1992 | ND (< 0.5) | 300 | 100 | 10 | ND (< 2.5) | 0.6 | ND (< 0.5) | 100 | ND (< 0.5) | 4 | ND (< 0.5) | CHLFM = 2.6 |
| BW-4 | | 6/8/1992 | ND (< 0.5) | 300 | 130 | 15 | - | 1 | ND (< 0.5) | 140 | 1.1 | 6.5 | ND (< 0.5) | CHLFM = 5 |
| BW-4 | | 9/18/1992 | ND (< 1) | 330 | 140 | 14 | - | ND (< 1) | ND (< 1) | 140 | 1 | 6.6 | ND (< 1) | CHLFM = 4.8 |
| BW-4 | | 12/14/1992 | ND (< 5) | 330 | 110 | 12 | ND (< 10) | ND (< 5) | - | 150 | ND (< 5) | ND (< 5) | ND (< 10) | |
| BW-4 | | 3/5/1993 | ND (< 1) | 330 | 150 | 15 | ND (< 5) | ND (< 1) | ND (< 1) | 110 | ND (< 1) | 3.4 | ND (< 1) | CHLFM = 5.2 |
| BW-4 | | 6/9/1993 | ND (< 1) | 220 | 100 | 11 | ND (< 5) | ND (< 1) | ND (< 1) | 140 | ND (< 1) | 2.8 | ND (< 1) | |
| BW-4 | | 9/10/1993 | ND (< 1) | 230 | 64 | 5.9 | ND (< 5) | ND (< 1) | ND (< 1) | 86 | ND (< 1) | ND (< 1) | ND (< 1) | |
| BW-4 | Dup | 9/10/1993 | ND (< 1) | 220 | 52 | 6.2 | ND (< 5) | ND (< 1) | ND (< 1) | 68 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.9 |
| BW-4 | | 12/2/1993 | ND (< 5) | 250 | 55 | 7.3 | - | ND (< 5) | - | 77 | ND (< 5) | ND (< 5) | ND (< 10) | |
| BW-4 | | 3/2/1994 | ND (< 1) | 360 | 57 | 9.9 | - | ND (< 1) | ND (< 1) | 85 | ND (< 1) | 2.2 | ND (< 1) | CHLFM = 1.9 |
| BW-4 | Dup | 3/2/1994 | ND (< 1) | 380 | 58 | 9.7 | - | ND (< 1) | ND (< 1) | 85 | ND (< 1) | 2.2 | ND (< 1) | CHLFM = 2 |
| BW-4 | | 6/8/1994 | ND (< 1) | 300 | 57 | 4.9 | - | ND (< 1) | ND (< 1) | 81 | ND (< 1) | 2 | ND (< 1) | CHLFM = 2.6 |
| BW-4 | | 12/5/1994 | ND (< 10) | 260 | 22 | ND (< 10) | ND (< 10) | ND (< 10) | - | 47 | ND (< 10) | ND (< 10) | ND (< 20) | |
| BW-4 | | 6/8/1995 | ND (< 0.5) | 180 | 28 | 2.8 | - | ND (< 0.5) | ND (< 0.5) | 34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| BW-4 | | 12/6/1995 | ND (< 5) | 150 | 11 | ND (< 5) | ND (< 5) | ND (< 5) | - | 22 | ND (< 5) | ND (< 5) | ND (< 10) | |
| BW-4 | | 6/5/1996 | ND (< 2.5) | 150 | 21 | 8.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 37 | 3.5 | ND (< 2.5) | ND (< 2.5) | CBMA = 117 ; CHLFM = 6.2 |
| BW-4 | | 12/12/1996 | ND (< 5) | 130 | 19 | 6.3 | 6.5 | ND (< 5) | - | 39 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 11 |
| BW-4 | | 12/5/1997 | ND (< 2.5) | 73 | 3.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 5.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 101 |
| BW-4 | Dup | 12/5/1997 | ND (< 2.5) | 75 | 3.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 5.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 95 |
| BW-4 | | 12/9/1998 | ND (< 2.5) | 143 | 33.9 | 14.4 | 13.1 | ND (< 2.5) | ND (< 2.5) | 72.2 | ND (< 2.5) | 2.76 | ND (< 2.5) | CBMA = 102 ; CHLFM = 8.74 |
| BW-4 | | 12/8/1999 | ND (< 4.17) | 143 | 28.4 | 11.6 | 12.9 | ND (< 4.17) | ND (< 4.17) | 58.8 | ND (< 4.17) | ND (< 8.33) | ND (< 4.17) | CHLFM = 8.35 |
| BW-4 | | 12/8/2000 | ND (< 1.0) | 100 | 19 | 5.0 | 8.2 | ND (< 1.0) | ND (< 1.0) | 32 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 4.7 |
| BW-4 | | 6/21/2001 | ND (< 2.5) | 160 | 20 | 6.2 | 7.7 | ND (< 2.5) | ND (< 2.5) | 41 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| E-3 | | 11/6/1991 | ND (< 0.5) | 86 | 25 | 4.2 | ND (< 1) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| | | | | | | | | | | | | | | |
| E-5 | | 11/6/1991 | ND (< 1) | 300 | 50 | 4.8 | ND (< 5) | ND (< 1) | ND (< 1) | 4.6 | ND (< 1) | ND (< 1) | ND (< 1) | |
| | | | | | | | | | | | | | | |
| EW-1 | | 6/9/1994 | ND (< 0.5) | 36 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.8 ; CHLFM = 27 |
| EW-1 | | 7/14/1994 | ND (< 0.5) | 45 | 0.98 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.3 ; CHLFM = 37 |
| EW-1 | | 10/17/1994 | ND (< 0.5) | 31 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.9 ; CHLFM = 44 |
| EW-1 | | 12/16/1994 | ND (< 5) | 37 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 40 |
| EW-1 | Dup | 12/16/1994 | ND (< 5) | 32 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 38 |
| EW-1 | | 3/3/1995 | ND (< 0.5) | 26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 1.1 ; CHLFM = 40 |
| EW-1 | | 6/5/1995 | ND (< 0.5) | 22 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 39 |
| EW-1 | | 9/6/1995 | ND (< 0.5) | 24 | 0.78 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 51 |
| EW-1 | | 12/11/1995 | ND (< 5) | 20 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 45 |
| EW-1 | | 3/7/1996 | ND (< 0.5) | 29 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 31 |
| EW-1 | | 8/16/1996 | ND (< 0.5) | 27 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 40 |
| EW-1 | | 9/11/1996 | ND (< 1) | 27 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 110 ; CHLFM = 40 |
| EW-1 | | 12/10/1996 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 59 |
| EW-1 | | 3/5/1997 | ND (< 0.5) | 23 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 ; CHLFM = 35 |
| EW-1 | | 6/4/1997 | ND (< 0.5) | 27 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; CHLFM = 35 ; MC = 1.5 |
| EW-1 | | 9/10/1997 | ND (< 0.5) | 43 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 ; CHLFM = 32 |
| EW-1 | | 12/4/1997 | ND (< 0.5) | 39 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 ; CHLFM = 32 |
| EW-1 | | 6/4/1998 | ND (< 2.5) | 89 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 107 ; CHLFM = 14 |
| EW-1 | | 12/10/1998 | ND (< 2.5) | 111 | 2.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.56 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 ; CHLFM = 11.6 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-1 | | 6/8/1999 | ND (< 10.0) | 160 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | 11.5 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| EW-1 | | 12/15/1999 | ND (< 5) | 210 | 5.8 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 9.1 | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 5.1 |
| EW-1 | | 6/8/2000 | ND (< 2.5) | 130 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-1 | | 12/11/2000 | ND (< 0.50) | 220 | 5.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 6.2 |
| EW-1 | | 6/22/2001 | ND (< 5.0) | 290 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 13 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-1 | | 6/27/2002 | ND (< 5.0) | 130 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-1 | | 6/25/2003 | ND (< 0.50) | 60 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.89 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 3.5 |
| EW-1 | | 6/22/2004 | ND (< 5.0) | 350 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 14 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-1 | | 6/28/2005 | ND (< 5.0) | 480 | 110 | 7.8 | 12 | ND (< 5.0) | ND (< 5.0) | 29 | ND (< 5.0) | 73 | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| EW-2 | | 6/9/1994 | ND (< 1) | 170 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | |
| EW-2 | | 7/14/1994 | ND (< 0.5) | 260 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.56 |
| EW-2 | | 8/16/1994 | ND (< 0.5) | 180 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.76 |
| EW-2 | | 9/14/1994 | 1.3 | 190 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 38 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.91 |
| EW-2 | | 5/31/1995 | 0.63 | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.58 | 0.97 | 47 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1,1,2-TCA = 0.53 ; 1,3-DCB = 0.65 |
| EW-2 | | 6/7/1995 | 2.8 | 85 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 4.6 | ND (< 1) | ND (< 1) | ND (< 1) | |
| EW-2 | | 9/6/1995 | 2.6 | 91 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.92 |
| EW-2 | | 12/11/1995 | ND (< 5) | 200 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-2 | | 3/7/1996 | ND (< 2.5) | 100 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-2 | | 8/16/1996 | ND (< 5) | 200 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 5.4 | ND (< 5) | ND (< 5) | ND (< 5) | |
| EW-2 | | 9/11/1996 | ND (< 5) | 230 | 5.3 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 6.1 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 ; MC = 7.8 |
| EW-2 | | 12/10/1996 | ND (< 5) | 61 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-2 | | 9/10/1997 | ND (< 2.5) | 6.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | 45 | CBMA = 114 |
| EW-2 | | 12/10/1998 | ND (< 5) | 94 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 10.2 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 118 |
| EW-2 | | 6/21/2001 | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 22 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| EW-2 | | 6/24/2005 | ND (< 0.50) | 26 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| EW-4 | | 12/7/1993 | ND (< 1) | 120 | 540 | 71 | - | 2 | ND (< 1) | 530 | 3.8 | 350 | ND (< 1) | CHLFM = 6.9 ; Freon 11 = 12 |
| EW-4 | | 6/9/1994 | 19 | 2,200 | 4,500 | 130 | - | ND (< 10) | ND (< 10) | 1,500 | ND (< 10) | 1,500 | ND (< 10) | |
| EW-4 | | 7/14/1994 | 24 | 2,400 | 3,400 | 73 | 4.9 | 3.1 | - | 1,200 | 4.9 | 1,200 | ND (< 0.5) | 1,1,2-TCA = 0.7 ; CHLFM = 6.4 ; Freon 11 = 22 |
| EW-4 | Dup | 7/14/1994 | 23 | 2,000 | 3,300 | 78 | 4.9 | 3.7 | - | 1,200 | 4.9 | 1,200 | ND (< 0.5) | 1,1,2-TCA = 0.65 ; CHLFM = 6.8 ; Freon 11 = 22 |
| EW-4 | | 8/16/1994 | 15 | 1,200 | 1,800 | 62 | - | ND (< 10) | ND (< 10) | 790 | ND (< 10) | 890 | ND (< 10) | Freon 11 = 12 |
| EW-4 | | 9/14/1994 | 25 | 1,200 | 1,600 | 71 | - | ND (< 5) | ND (< 5) | 460 | ND (< 5) | 1,100 | ND (< 5) | Freon 11 = 19 |
| EW-4 | | 5/31/1995 | 14 | 450 | 500 | 25 | - | ND (< 1) | 4.1 | 200 | ND (< 1) | 370 | ND (< 1) | 1,3-DCB = 1.9 ; CHLFM = 3 ; Freon 11 = 11 |
| EW-4 | | 6/9/1995 | 12 | 590 | 620 | 29 | - | ND (< 5) | ND (< 5) | 240 | ND (< 5) | 380 | ND (< 5) | Freon 11 = 8.8 |
| EW-4 | Dup | 6/9/1995 | 12 | 570 | 600 | 31 | - | ND (< 5) | ND (< 5) | 250 | ND (< 5) | 370 | ND (< 5) | Freon 11 = 8.9 |
| EW-4 | | 9/8/1995 | 14 | 420 | 440 | 32 | - | ND (< 5) | ND (< 5) | 210 | ND (< 5) | 310 | ND (< 5) | CHLFM = 8 ; Freon 11 = 8.4 |
| EW-4 | | 12/11/1995 | 8.4 | 260 | 280 | 22 | - | ND (< 5) | - | 120 | ND (< 5) | 180 | ND (< 10) | |
| EW-4 | Dup | 12/11/1995 | 8.5 | 270 | 280 | 23 | - | ND (< 5) | - | 120 | ND (< 5) | 190 | ND (< 10) | |
| EW-4 | | 3/7/1996 | 18 | 260 | 240 | 28 | 74 | ND (< 5) | 5.7 | 120 | ND (< 5) | 190 | ND (< 5) | CHLFM = 7.1 ; Freon 11 = 12 ; MC = 7.5 |
| EW-4 | | 6/11/1996 | 7.6 | 150 | 140 | 20 | 44 | ND (< 2.5) | ND (< 2.5) | 78 | ND (< 2.5) | 120 | ND (< 2.5) | CBMA = 98 ; CHLFM = 5.8 ; Freon 11 = 8.3 ; MC = 2.8 |
| EW-4 | | 9/13/1996 | 6 | 120 | 120 | 20 | 43 | ND (< 2.5) | 2.7 | 69 | ND (< 2.5) | 65 | ND (< 2.5) | CBMA = 104 ; CHLFM = 4.2 ; Freon 11 = 8.5 |
| EW-4 | | 12/13/1996 | ND (< 5) | 120 | 140 | 17 | 35 | ND (< 5) | - | 68 | ND (< 5) | 140 | ND (< 10) | |
| EW-4 | | 3/6/1997 | ND (< 5) | 110 | 110 | 15 | 33 | ND (< 5) | ND (< 5) | 53 | ND (< 5) | 100 | ND (< 5) | CBMA = 107 ; Freon 11 = 7.9 |
| EW-4 | | 6/5/1997 | 4.6 | 77 | 78 | 14 | 26 | ND (< 2.5) | ND (< 2.5) | 41 | ND (< 2.5) | 70 | ND (< 2.5) | CBMA = 89 ; CHLFM = 3 ; Freon 11 = 8.2 |
| EW-4 | | 9/11/1997 | 3.9 | 80 | 75 | 13 | ND (< 1) | ND (< 1) | 1.2 | 40 | ND (< 1) | 60 | ND (< 1) | CBMA = 111 ; CHLFM = 3.7 ; Freon 11 = 6.4 |
| EW-4 | | 12/3/1997 | 2.2 | 49 | 49 | 8.8 | 19 | ND (< 0.5) | 1.1 | 27 | ND (< 0.5) | 49 | ND (< 0.5) | CBMA = 96 ; CHLFM = 1.4 ; Freon 11 = 5.7 |
| EW-4 | | 6/4/1998 | 1.3 | 34 | 38 | 7.2 | 18 | ND (< 1) | ND (< 1) | 21 | ND (< 1) | 36 | ND (< 1) | CBMA = 111 ; CHLFM = 1.6 ; Freon 11 = 2.7 |
| EW-4 | | 12/11/1998 | ND (< 5) | 199 | 119 | 12.2 | 37.1 | ND (< 5) | 6.76 | 95.2 | ND (< 5) | 59.7 | ND (< 5) | CBMA = 96 |
| EW-4 | | 6/8/1999 | 0.992 | 25.2 | 19.2 | 4.91 | 12.8 | ND (< 0.500) | ND (< 0.500) | 11.5 | ND (< 0.500) | 16.9 | ND (< 0.500) | CHLFM = 0.601 ; Freon 11 = 1.47 |
| EW-4 | | 12/15/1999 | ND (< 1.3) | 22 | 20 | 5.2 | 14 | ND (< 1.3) | ND (< 1.3) | 9.5 | ND (< 1.3) | 10 | ND (< 1.3) | |
| EW-4 | Dup | 12/15/1999 | 0.63 | 22 | 21 | 4.9 | 13 | ND (< 0.5) | ND (< 0.5) | 8.9 | ND (< 0.5) | 8.1 | ND (< 0.5) | Freon 11 = 1.1 |
| EW-4 | | 6/7/2000 | ND (< 0.50) | 11 | 11 | 3.6 | 10 | ND (< 0.50) | ND (< 0.50) | 7.1 | ND (< 0.50) | 6.7 | ND (< 0.50) | Freon 11 = 0.63 |
| EW-4 | | 12/11/2000 | ND (< 0.50) | 16 | 16 | 4.6 | 14 | ND (< 0.50) | ND (< 0.50) | 9.5 | ND (< 0.50) | 9.5 | ND (< 0.50) | CHLFM = 0.70 ; Freon 11 = 1.6 |
| EW-4 | Dup | 12/11/2000 | ND (< 0.50) | 21 | 20 | 4.9 | 19 | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | 13 | ND (< 0.50) | Freon 11 = 1.3 |
| EW-4 | | 6/21/2001 | ND (< 0.50) | 16 | 16 | 3.9 | 18 | ND (< 0.50) | ND (< 0.50) | 10 | ND (< 0.50) | 14 | ND (< 0.50) | CHLFM = 0.61 ; Freon 11 = 1.3 |
| EW-4 | Dup | 6/21/2001 | ND (< 0.50) | 17 | 16 | 3.9 | 18 | ND (< 0.50) | ND (< 0.50) | 10 | ND (< 0.50) | 13 | ND (< 0.50) | CHLFM = 0.62 ; Freon 11 = 1.2 |
| EW-4 | | 6/25/2003 | ND (< 0.50) | 9.3 | 7.3 | 2.8 | 11 | ND (< 0.50) | ND (< 0.50) | 4.5 | ND (< 0.50) | 3.6 | ND (< 0.50) | Freon 11 = 1.2 |
| EW-4 | Dup | 6/25/2003 | ND (< 0.50) | 9.8 | 7.7 | 3.1 | 11 | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | 3.5 | ND (< 0.50) | Freon 11 = 1.2 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-4 | | 6/22/2005 | 3.2 | 17 | 7.9 | 7.5 | 29 | ND (< 0.50) | ND (< 0.50) | 8.1 | ND (< 0.50) | 6.3 | 0.67 | CHLFM = 0.51 |
| EW-4 | | 3/22/2007 | 9.1 | 13 | 4.3 | 5.7 | 14 | ND (< 0.5) | ND (< 0.5) | 6.4 | ND (< 0.5) | 2.2 | ND (< 0.5) | |
| EW-4 | | 3/30/2007 | 8.8 | 15 | 4.2 | 6.7 | 14 | ND (< 0.5) | ND (< 0.5) | 6.5 | ND (< 0.5) | 2.3 | ND (< 0.5) | |
| EW-4 | | 6/12/2007 | 8.4 | 15 | 4.2 | 7.5 | 19 | 0.51 | ND (< 0.50) | 6.3 | ND (< 0.50) | 2.9 | ND (< 0.50) | |
| EW-4 | | 6/9/2009 | 11 | 19 | 3.4 | 4.2 | 25 | ND (< 0.50) | ND (< 0.50) | 8.8 | ND (< 0.50) | 1.7 | 0.87 | |
| EW-4 | | 6/14/2011 | 20 | 26 | 3.2 | 5.9 | 39 | ND (< 0.50) | ND (< 0.50) | 9.4 | ND (< 0.50) | 1.9 | 1.1 | |
| EW-4 | | 6/14/2013 | 20 | 30 | 2.3 | 5.9 | 50 | ND (< 0.50) | ND (< 0.50) | 9.1 | ND (< 0.50) | 1.4 | 0.62 | |
| | | | | | | | | | | | | | | |
| EW-5 | | 3/23/1993 | 63 | 1,600 | 340 | 21 | ND (< 25) | ND (< 5) | ND (< 5) | 150 | ND (< 5) | 200 | ND (< 5) | |
| EW-5 | Dup | 3/23/1993 | 47 | 1,500 | 360 | 20 | ND (< 25) | ND (< 5) | ND (< 5) | 150 | ND (< 5) | 210 | ND (< 5) | |
| EW-5 | | 6/9/1994 | 160 | 8,400 | 5,300 | 58 | - | ND (< 50) | 160 | 490 | ND (< 50) | 1,900 | ND (< 50) | Ethylbenzene = 70 ; Toluene = 51 ; Xylenes = 330 |
| EW-5 | Dup | 6/9/1994 | 150 | 8,000 | 5,200 | 55 | - | ND (< 50) | 160 | 490 | ND (< 50) | 1,700 | ND (< 50) | Ethylbenzene = 59 ; Xylenes = 310 |
| EW-5 | | 7/14/1994 | 180 | 9,600 | 6,000 | 62 | - | ND (< 50) | - | 630 | ND (< 50) | 2,300 | ND (< 50) | Ethylbenzene = 93 ; MC = 50 ; Toluene = 59 ; Xylenes = 470 |
| EW-5 | | 8/18/1994 | 200 | 8,800 | 9,700 | 160 | - | ND (< 50) | - | 1,100 | ND (< 50) | 3,400 | ND (< 50) | Ethylbenzene = 150 ; MC = 56 ; Toluene = 120 ; Xylenes = 690 |
| EW-5 | | 9/14/1994 | 270 | 5,700 | 5,400 | 180 | - | ND (< 10) | - | 750 | ND (< 10) | 2,900 | ND (< 10) | Ethylbenzene = 160 ; MC = 44 ; Toluene = 100 ; Xylenes = 720 |
| EW-5 | Dup | 9/14/1994 | 270 | 5,600 | 5,300 | 180 | - | ND (< 10) | - | 750 | ND (< 10) | 2,900 | ND (< 10) | Ethylbenzene = 160 ; Freon 11 = 18 ; MC = 44 ; Toluene = 100 ; Xylenes = 710 |
| EW-5 | | 12/16/1994 | 210 | 6,200 | 4,100 | 110 | - | ND (< 50) | - | 580 | ND (< 50) | 1,900 | ND (< 100) | Ethylbenzene = 140 ; Toluene = 72 ; Xylenes = 680 |
| EW-5 | | 3/6/1995 | 230 | 10,000 | 6,500 | 76 | - | ND (< 50) | 270 | 620 | ND (< 50) | 2,800 | ND (< 50) | |
| EW-5 | | 6/9/1995 | 180 | 6,300 | 5,500 | 98 | - | ND (< 50) | 230 | 770 | ND (< 50) | 2,200 | ND (< 50) | |
| EW-5 | | 9/8/1995 | 820 | 5,800 | 5,400 | 140 | - | ND (< 120) | 460 | 970 | ND (< 120) | 2,300 | ND (< 120) | MC = 120 |
| EW-5 | Dup | 9/8/1995 | 320 | 5,600 | 5,100 | ND (< 120) | - | ND (< 120) | 440 | 810 | ND (< 120) | 1,900 | ND (< 120) | |
| EW-5 | | 12/8/1995 | 180 | 5,400 | 5,100 | 100 | ND (< 250) | ND (< 5) | - | 660 | ND (< 5) | 1,900 | ND (< 10) | Ethylbenzene = 120 ; MC = 22 ; Toluene = 81 ; Xylenes = 500 |
| EW-5 | | 3/6/1996 | 420 | 5,800 | 6,400 | 300 | 420 | ND (< 100) | 520 | 1,800 | ND (< 100) | 2,800 | ND (< 100) | MC = 220 |
| EW-5 | | 6/10/1996 | 170 | 4,100 | 3,100 | 91 | 160 | ND (< 50) | 280 | 560 | ND (< 50) | 1,400 | ND (< 50) | CBMA = 118 |
| EW-5 | | 9/13/1996 | 180 | 3,400 | 3,400 | 130 | 220 | ND (< 50) | 330 | 640 | ND (< 50) | 1,000 | ND (< 50) | CBMA = 104 ; MC = 69 |
| EW-5 | | 12/13/1996 | ND (< 120) | 3,600 | 3,500 | ND (< 120) | ND (< 120) | ND (< 120) | - | 430 | ND (< 120) | 1,600 | ND (< 250) | Xylenes = 230 |
| EW-5 | | 3/7/1997 | 140 | 2,300 | 1,900 | 81 | 130 | ND (< 25) | 240 | 380 | ND (< 25) | 1,300 | ND (< 25) | CBMA = 102 ; MC = 28 |
| EW-5 | | 6/6/1997 | 120 | 1,800 | 1,700 | 85 | 120 | ND (< 25) | 190 | 380 | ND (< 25) | 980 | ND (< 25) | CBMA = 96 ; Freon 11 = 28 |
| EW-5 | | 9/11/1997 | 140 | 2,000 | 1,700 | 64 | 160 | ND (< 25) | 230 | 340 | ND (< 25) | 880 | ND (< 25) | CBMA = 100 |
| EW-5 | | 12/4/1997 | 74 | 1,300 | 760 | 29 | 64 | ND (< 25) | 180 | 200 | ND (< 25) | 580 | ND (< 25) | CBMA = 95 |
| EW-5 | | 6/3/1998 | 33 | 440 | 160 | ND (< 25) | ND (< 25) | ND (< 25) | 130 | 95 | ND (< 25) | 200 | ND (< 25) | CBMA = 115 |
| EW-5 | | 12/11/1998 | 28.4 | 285 | 134 | ND (< 25) | 25.7 | ND (< 25) | 98.5 | 52.3 | ND (< 25) | 38.4 | ND (< 25) | CBMA = 97.3 |
| EW-5 | | 6/9/1999 | 22.2 | 150 | 47.1 | 11.6 | 22.7 | ND (< 10.0) | 92.9 | 36.0 | ND (< 10.0) | 58.1 | ND (< 10.0) | |
| EW-5 | | 12/15/1999 | 19 | 150 | 46 | 14 | 30 | ND (< 2.5) | - | 40 | ND (< 2.5) | 37 | ND (< 2.5) | Freon 11 = 6.5 |
| EW-5 | | 6/13/2000 | 21 | 130 | 40 | ND (< 2.5) | 28 | ND (< 2.5) | 92 | 34 | ND (< 2.5) | 56 | ND (< 2.5) | |
| EW-5 | | 12/5/2000 | 14 | 140 | 28 | 10 | 30 | ND (< 2.5) | 75 | 26 | ND (< 2.5) | 39 | ND (< 2.5) | Freon 11 = 5.2 |
| EW-5 | | 6/22/2001 | 22 | 130 | 41 | 12 | 28 | ND (< 2.5) | 94 | 39 | ND (< 2.5) | 41 | ND (< 2.5) | Freon 11 = 8.2 |
| EW-5 | | 6/25/2003 | 10 | 82 | 18 | 8.4 | 13 | ND (< 0.50) | 48 | 47 | ND (< 0.50) | 27 | 1.5 | CHLFM = 0.94 ; Freon 11 = 4.7 |
| EW-5 | | 6/20/2005 | 11 | 52 | 18 | 6.0 | 13 | ND (< 0.50) | 47 | 22 | ND (< 0.50) | 23 | 0.81 | 1,4-DCB = 0.64 ; CHLFM = 0.74 ; Freon 11 = 5.6 |
| EW-5 | | 3/22/2007 | 4.4 | 29 | 15 | 4.5 | 11 | ND (< 0.5) | 22 | 3.9 | ND (< 0.5) | 8.4 | ND (< 0.5) | 1,2,3-TCB = 2.1 ; 1,2,4-TCB = 10 ; Freon 11 = 5.5 |
| EW-5 | | 3/30/2007 | 3.8 | 34 | 14 | 5.2 | 14 | ND (< 0.5) | 24 | 11 | ND (< 0.5) | 11 | ND (< 0.5) | 1,2,4-TCB = 17 ; Freon 11 = 5 |
| EW-5 | | 6/12/2007 | 3.8 | 35 | 13 | 5.2 | 18 | ND (< 0.50) | 27 | 11 | ND (< 0.50) | 12 | ND (< 0.50) | 1,2,4-TCB = 22 ; Freon 11 = 5.2 |
| EW-5 | | 2/11/2008 | 3.5 | 48 | 34 | 4.6 | 11 | ND (< 0.50) | 24 | 14 | ND (< 0.50) | 29 | ND (< 0.50) | 1,2,3-TCB = 4.7 ; 1,2,4-TCB = 26 ; 1,4-DCB = 0.52 ; Freon 11 = 4.2 |
| EW-5 | | 2/19/2008 | 3.7 | 58 | 39 | 4.6 | 12 | ND (< 0.50) | 26 | 17 | ND (< 0.50) | 38 | ND (< 0.50) | 1,2,3-TCB = 5.7 ; 1,2,4-TCB = 32 ; Freon 11 = 4.1 |
| EW-5 | | 6/9/2009 | 1.9 | 27 | 9.5 | 3.4 | 8.3 | ND (< 0.50) | 13 | 5.4 | ND (< 0.50) | 5.4 | ND (< 0.50) | 1,2,4-TCB = 9.1 ; Freon 11 = 3.8 |
| EW-5 | | 6/14/2011 | 2.4 | 35 | 13 | 4.4 | 12 | ND (< 0.50) | 12 | 7.1 | ND (< 0.50) | 7.6 | ND (< 0.50) | 1,2,4-TCB = 7.3 ; CHLFM = 1.1 ; Freon 11 = 4.2 |
| EW-5 | | 6/18/2013 | 1.8 | 22 | 9.2 | 3.2 | 7.1 | ND (< 0.50) | 7.9 | 1.7 | ND (< 0.50) | 3.8 | ND (< 0.50) | 1,2,4-TCB = 4.1, Freon 11 = 3.5 |
| | | | | | | | | | | | | | | |
| EW-6 | | 2/2/1993 | ND (< 0.5) | 210 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-6 | | 10/17/1994 | ND (< 2.5) | 1,200 | ND (< 2.5) | 4.8 | - | ND (< 2.5) | ND (< 2.5) | 21 | 3.5 | ND (< 2.5) | ND (< 2.5) | |
| EW-6 | | 12/16/1994 | ND (< 5) | 700 | ND (< 5) | 9.1 | ND (< 5) | ND (< 5) | - | 9.9 | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-6 | | 5/31/1995 | 1.4 | 3,000 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 81 | 4.3 | ND (< 0.5) | ND (< 0.5) | |
| EW-6 | | 6/7/1995 | ND (< 0.5) | 470 | 3.7 | 8.4 | - | ND (< 0.5) | ND (< 0.5) | 8.2 | 1.5 | ND (< 0.5) | ND (< 0.5) | |
| EW-6 | | 9/7/1995 | ND (< 50) | 320 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | MC = 120 |
| EW-6 | | 11/17/1995 | ND (< 5) | 160 | 31 | 28 | - | ND (< 5) | ND (< 5) | 310 | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 11 ; MC = 5.8 |
| EW-6 | | 12/8/1995 | ND (< 5) | 2,600 | ND (< 5) | ND (< 5) | ND (< 100) | ND (< 5) | - | 170 | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-6 | | 3/7/1996 | ND (< 12) | 910 | 33 | 12 | ND (< 12) | ND (< 12) | ND (< 12) | 13 | ND (< 12) | ND (< 12) | ND (< 12) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-6 | | 6/6/1996 | ND (< 2.5) | 160 | 32 | 32 | 22 | ND (< 2.5) | ND (< 2.5) | 5.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 118 |
| EW-6 | Dup | 6/6/1996 | ND (< 2.5) | 150 | 32 | 32 | 22 | ND (< 2.5) | ND (< 2.5) | 5.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 119 |
| EW-6 | | 9/12/1996 | ND (< 2.5) | 130 | 42 | 40 | 34 | ND (< 2.5) | ND (< 2.5) | 17 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 ; MC = 7.4 |
| EW-6 | | 12/16/1996 | ND (< 5) | 110 | 34 | 35 | 27 | ND (< 5) | - | 23 | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-6 | | 3/6/1997 | ND (< 2.5) | 110 | 53 | 46 | 40 | 2.7 | ND (< 2.5) | 47 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 98 ; CHLFM = 3 ; Freon 11 = 3.5 ; MC = 3 |
| EW-6 | | 6/5/1997 | ND (< 2.5) | 100 | 97 | 53 | 58 | ND (< 2.5) | ND (< 2.5) | 100 | ND (< 2.5) | 3.9 | ND (< 2.5) | CBMA = 101 ; CHLFM = 3.7 ; Freon 11 = 7.9 |
| EW-6 | | 9/9/1997 | ND (< 2.5) | 100 | 160 | 56 | 72 | 2.7 | ND (< 2.5) | 170 | ND (< 2.5) | 2.8 | ND (< 2.5) | CBMA = 107 ; CHLFM = 5.6 ; Freon 11 = 9.5 |
| EW-6 | | 12/5/1997 | ND (< 2.5) | 100 | 180 | 51 | 80 | 2.7 | ND (< 2.5) | 180 | ND (< 2.5) | 7.1 | ND (< 2.5) | CBMA = 96 ; CHLFM = 6.5 ; Freon 11 = 9.9 |
| EW-6 | | 6/2/1998 | ND (< 12) | 86 | 380 | 46 | 110 | ND (< 12) | ND (< 12) | 310 | ND (< 12) | 18 | ND (< 12) | CBMA = 112 |
| EW-6 | | 12/8/1998 | ND (< 25) | 101 | 482 | ND (< 25) | 108 | ND (< 25) | ND (< 25) | 328 | ND (< 25) | 43.7 | ND (< 25) | CBMA = 114 |
| EW-6 | | 6/8/1999 | ND (< 12.5) | 112 | 406 | 33.4 | 86.0 | ND (< 12.5) | ND (< 12.5) | 258 | ND (< 12.5) | 69.1 | ND (< 12.5) | |
| EW-6 | | 12/15/1999 | ND (< 5) | 100 | 410 | 24 | 74 | ND (< 5) | ND (< 5) | 220 | ND (< 5) | 67 | ND (< 5) | MC = 5.4 |
| EW-6 | | 6/8/2000 | ND (< 10) | 120 | 350 | 21 | 69 | ND (< 10) | ND (< 10) | 210 | ND (< 10) | 67 | ND (< 10) | |
| EW-6 | | 12/11/2000 | ND (< 10) | 120 | 270 | 18 | 53 | ND (< 10) | ND (< 10) | 170 | ND (< 10) | 130 | ND (< 10) | |
| EW-6 | Dup | 12/11/2000 | 180 | 180 | 25 | ND (< 10) | 11 | ND (< 10) | ND (< 10) | 29 | ND (< 10) | ND (< 40) | ND (< 10) | |
| EW-6 | | 6/21/2001 | ND (< 10) | 160 | 290 | 21 | 80 | ND (< 10) | ND (< 10) | 180 | ND (< 10) | 170 | ND (< 10) | |
| EW-6 | | 6/25/2003 | ND (< 1.0) | 120 | 100 | 11 | 34 | ND (< 1.0) | ND (< 1.0) | 74 | 1.1 | 91 | ND (< 1.0) | |
| EW-6 | | 6/24/2005 | ND (< 5.0) | 290 | 160 | 11 | 19 | ND (< 5.0) | ND (< 5.0) | 41 | ND (< 5.0) | 67 | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| EW-7 | | 8/16/1994 | ND (< 10) | 740 | 190 | ND (< 10) | - | ND (< 10) | ND (< 10) | 98 | ND (< 10) | 240 | ND (< 10) | MC = 14 |
| EW-7 | Dup | 8/16/1994 | ND (< 10) | 810 | 170 | ND (< 10) | - | ND (< 10) | ND (< 10) | 84 | ND (< 10) | 190 | ND (< 10) | |
| EW-7 | | 9/14/1994 | 9.6 | 570 | 210 | 9.7 | - | ND (< 1) | - | 75 | ND (< 1) | 230 | ND (< 1) | CHLFM = 4.1 ; Xylenes = 2.2 |
| EW-7 | | 10/17/1994 | 10 | 730 | 200 | 8.4 | - | ND (< 5) | ND (< 5) | 90 | ND (< 5) | 200 | ND (< 5) | |
| EW-7 | | 12/16/1994 | 8.8 | 670 | 160 | 7.5 | - | ND (< 5) | - | 76 | ND (< 5) | 150 | ND (< 10) | Acetone = 12 |
| EW-7 | | 3/6/1995 | 8.5 | 700 | 140 | ND (< 5) | - | ND (< 5) | ND (< 5) | 65 | ND (< 5) | 150 | ND (< 5) | |
| EW-7 | | 6/9/1995 | 5.9 | 560 | 130 | ND (< 5) | - | ND (< 5) | ND (< 5) | 54 | ND (< 5) | 150 | ND (< 5) | |
| EW-7 | | 9/7/1995 | ND (< 25) | 640 | 160 | ND (< 25) | - | ND (< 25) | ND (< 25) | 63 | ND (< 25) | 130 | ND (< 25) | |
| EW-7 | | 11/17/1995 | 12 | 500 | 130 | ND (< 12) | - | ND (< 12) | ND (< 12) | 50 | ND (< 12) | 140 | ND (< 12) | CHLFM = 14 ; MC = 14 |
| EW-7 | | 12/11/1995 | 6.8 | 440 | 70 | ND (< 5) | - | ND (< 5) | - | 35 | ND (< 5) | 83 | ND (< 10) | |
| EW-7 | | 3/7/1996 | 16 | 360 | 74 | 5.7 | 32 | ND (< 5) | ND (< 5) | 38 | ND (< 5) | 76 | ND (< 5) | MC = 6.7 |
| EW-7 | | 6/6/1996 | 10 | 480 | 82 | 5.4 | 29 | ND (< 5) | ND (< 5) | 40 | ND (< 5) | 110 | ND (< 5) | CBMA = 118 ; MC = 5 |
| EW-7 | | 9/12/1996 | 12 | 330 | 66 | 6.8 | 29 | ND (< 5) | ND (< 5) | 37 | ND (< 5) | 60 | ND (< 5) | CBMA = 105 ; MC = 15 |
| EW-7 | | 12/11/1996 | ND (< 10) | 360 | 52 | ND (< 10) | 21 | ND (< 10) | - | 31 | ND (< 10) | 120 | ND (< 20) | |
| EW-7 | | 3/6/1997 | 12 | 350 | 76 | 8.3 | 30 | ND (< 5) | ND (< 5) | 40 | ND (< 5) | 120 | ND (< 5) | CBMA = 108 |
| EW-7 | | 6/5/1997 | 10 | 240 | 62 | 7.6 | 23 | ND (< 5) | ND (< 5) | 34 | ND (< 5) | 91 | ND (< 5) | CBMA = 96 ; Freon 11 = 5.9 |
| EW-7 | | 9/12/1997 | 16 | 410 | 110 | 9.9 | 42 | ND (< 5) | ND (< 5) | 53 | ND (< 5) | 140 | ND (< 5) | CBMA = 106 ; Freon 11 = 5.5 |
| EW-7 | | 12/3/1997 | 13 | 300 | 92 | 12 | 34 | ND (< 5) | ND (< 5) | 51 | ND (< 5) | 140 | ND (< 5) | CBMA = 90 ; Freon 11 = 8.2 |
| EW-7 | | 6/2/1998 | ND (< 25) | 620 | 910 | 37 | 88 | ND (< 25) | ND (< 25) | 150 | ND (< 25) | 270 | ND (< 25) | CBMA = 111 |
| EW-7 | | 12/10/1998 | ND (< 25) | 837 | 381 | ND (< 25) | 46.4 | ND (< 25) | ND (< 25) | 83.7 | ND (< 25) | 252 | ND (< 25) | CBMA = 129 |
| EW-7 | | 6/8/1999 | ND (< 50.0) | 1,050 | 276 | ND (< 50.0) | 51.5 | ND (< 50.0) | ND (< 50.0) | 81.1 | ND (< 50.0) | 220 | ND (< 50.0) | |
| EW-7 | | 12/15/1999 | ND (< 25) | 1,400 | 260 | ND (< 25) | 55 | ND (< 25) | ND (< 25) | 85 | ND (< 25) | 210 | ND (< 25) | |
| EW-7 | Dup | 12/15/1999 | ND (< 25) | 1,300 | 280 | ND (< 25) | 55 | ND (< 25) | ND (< 25) | 80 | ND (< 25) | 220 | ND (< 25) | |
| EW-7 | | 6/7/2000 | ND (< 25) | 1,200 | 230 | ND (< 25) | 31 | ND (< 25) | ND (< 25) | 48 | ND (< 25) | 340 | ND (< 25) | |
| EW-7 | | 12/5/2000 | ND (< 25) | 2,200 | 500 | ND (< 25) | 91 | ND (< 25) | ND (< 25) | 91 | ND (< 25) | 650 | ND (< 25) | |
| EW-7 | | 6/22/2001 | ND (< 25) | 1,800 | 300 | ND (< 25) | 62 | ND (< 25) | ND (< 25) | 65 | ND (< 25) | 420 | ND (< 25) | |
| EW-7 | | 6/26/2003 | 77 | 6,500 | 4,800 | 220 | 380 | ND (< 50) | ND (< 50) | 570 | ND (< 50) | 2,200 | ND (< 50) | |
| EW-7 | | 6/22/2005 | 16 | 620 | 69 | ND (< 10) | 41 | ND (< 10) | ND (< 10) | 20 | ND (< 10) | 240 | ND (< 10) | |
| EW-7 | | 6/29/2006 | 5.8 | 550 | 64 | 8.0 | 24 | ND (< 5.0) | ND (< 5.0) | 36 | ND (< 5.0) | 140 | ND (< 5.0) | |
| EW-7 | | 3/22/2007 | 5.4 | 410 | 45 | 6.3 | 26 | ND (< 5) | ND (< 5) | 27 | ND (< 5) | 150 | ND (< 5) | |
| EW-7 | | 3/30/2007 | 3.9 | 250 | 28 | 4.1 | 20 | ND (< 2) | ND (< 2) | 18 | ND (< 2) | 84 | ND (< 2) | |
| EW-7 | | 6/12/2007 | 5.5 | 370 | 41 | 6.5 | 28 | ND (< 5.0) | ND (< 5.0) | 24 | ND (< 5.0) | 150 | ND (< 5.0) | |
| EW-7 | Dup | 6/12/2007 | 5.1 | 350 | 39 | 6.3 | 26 | ND (< 5.0) | ND (< 5.0) | 23 | ND (< 5.0) | 120 | ND (< 5.0) | |
| EW-7 | | 1/15/2008 | 14 | 760 | 320 | 43 | 26 | ND (< 5.0) | 10 | 290 | ND (< 5.0) | 190 | ND (< 5.0) | |
| EW-7 | | 1/16/2008 | 26 | 1,100 | 560 | 64 | 47 | ND (< 10) | 13 | 410 | ND (< 10) | 340 | ND (< 10) | |
| EW-7 | | 2/11/2008 | 36 | 1,500 | 1,000 | 81 | 73 | ND (< 20) | ND (< 20) | 420 | ND (< 20) | 1,100 | ND (< 20) | |
| EW-7 | | 2/19/2008 | 42 | 1,700 | 1,300 | 70 | 81 | ND (< 20) | 27 | 460 | ND (< 20) | 1,300 | ND (< 20) | |
| EW-7 | | 4/22/2008 | 68 | 2,200 | 1,600 | 54 | 79 | ND (< 20) | 53 | 390 | ND (< 20) | 1,500 | ND (< 20) | |
| EW-7 | | 6/11/2008 | 80 | 2,400 | 1,500 | 55 | 75 | ND (< 25) | 69 | 390 | ND (< 25) | 1,600 | ND (< 25) | |
| EW-7 | | 12/10/2008 | 72 | 1,900 | 1,200 | 50 | 70 | ND (< 20) | 100 | 440 | ND (< 20) | 1,700 | ND (< 20) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-7 | | 6/9/2009 | 57 | 1,500 | 950 | 37 | 81 | ND (< 0.50) | 95 | 340 | 1.0 | 890 | 1.4 | 1,2,4-TCB = 1.6 ; 1,4-DCB = 1.2 ; CHLBZ = 0.60 ; Freon 11 = 1.7 |
| EW-7 | | 4/5/2010 | 64 | 1,400 | 870 | 37 | 87 | ND (< 25) | 110 | 370 | ND (< 25) | 900 | ND (< 25) | |
| EW-7 | | 6/9/2010 | 56 | 1,300 | 610 | 26 | 77 | ND (< 25) | 87 | 250 | ND (< 25) | 760 | ND (< 25) | |
| EW-7 | | 6/14/2011 | 70 | 1,100 | 690 | 39 | 62 | ND (< 25) | 100 | 330 | ND (< 25) | 900 | ND (< 25) | |
| EW-7 | | 8/26/2011 | 16 | 290 | 44 | 6.1 | 18 | ND (< 0.50) | 31 | 27 | ND (< 0.50) | 110 | ND (< 0.50) | 1,2,4-TCB = 3.3 |
| EW-7 | | 9/29/2011 | 46 | 810 | 230 | 17 | 31 | ND (< 10) | 76 | 170 | ND (< 10) | 370 | ND (< 10) | |
| EW-7 | | 10/17/2011 | 41 | 750 | 220 | 15 | 30 | ND (< 10) | 74 | 170 | ND (< 10) | 390 | ND (< 10) | |
| EW-7 | | 3/5/2012 | 33 | 600 | 89 | 12 | 32 | ND (< 10) | 70 | 100 | ND (< 10) | 280 | ND (< 10) | |
| EW-7 | | 6/13/2012 | 32 | 580 | 110 | 16 | 23 | ND (< 10) | 74 | 180 | ND (< 10) | 240 | ND (< 10) | |
| EW-7 | Dup | 6/13/2012 | 28 | 580 | 130 | 17 | 21 | ND (< 0.50) | 72 | 190 | ND (< 0.50) | 240 | 0.54 | 1,2,3-TCB = 6.8 ; 1,4-DCB = 0.91 ; Freon 11 = 1.4 |
| EW-7 | | 6/20/2013 | 31 | 570 | 230 | 22 | 30 | ND (< 10) | 63 | 250 | ND (< 10) | 320 | ND (< 10) | |
| EW-7 | | 6/16/2014 | 56 | 920 | 600 | 57 | 62 | ND (< 10) | 120 | 530 | ND (< 10) | 780 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| EW-8 | | 5/6/1993 | ND (< 0.5) | 190 | 26 | 11 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 36 | ND (< 0.5) | 0.5 | ND (< 0.5) | CHLFM = 1.9 ; Toluene = 0.6 |
| EW-8 | | 7/14/1994 | ND (< 10) | 1,500 | 570 | 26 | - | ND (< 10) | ND (< 10) | 380 | ND (< 10) | 160 | ND (< 10) | |
| EW-8 | | 8/16/1994 | ND (< 10) | 1,300 | 470 | ND (< 10) | - | ND (< 10) | ND (< 10) | 310 | ND (< 10) | 160 | ND (< 10) | |
| EW-8 | | 9/14/1994 | ND (< 0.5) | 1,200 | 400 | 23 | 1.1 | 0.66 | ND (< 0.5) | 260 | 1.1 | 260 | ND (< 0.5) | CHLFM = 3.7 ; Freon 11 = 2.2 |
| EW-8 | | 12/16/1994 | ND (< 10) | 1,500 | 460 | 24 | - | ND (< 10) | - | 310 | ND (< 10) | 220 | ND (< 20) | |
| EW-8 | | 3/3/1995 | ND (< 12) | 1,200 | 450 | 14 | - | ND (< 12) | ND (< 12) | 280 | ND (< 12) | 210 | ND (< 12) | |
| EW-8 | Dup | 3/3/1995 | ND (< 12) | 1,200 | 480 | 15 | - | ND (< 12) | ND (< 12) | 300 | ND (< 12) | 240 | ND (< 12) | |
| EW-8 | | 6/5/1995 | ND (< 12) | 800 | 260 | ND (< 12) | - | ND (< 12) | ND (< 12) | 180 | ND (< 12) | 170 | ND (< 12) | MC = 20 |
| EW-8 | | 9/7/1995 | ND (< 25) | 1,100 | 390 | ND (< 25) | - | ND (< 25) | ND (< 25) | 210 | ND (< 25) | 270 | ND (< 25) | MC = 58 |
| EW-8 | | 11/17/1995 | ND (< 12) | 720 | 250 | 15 | - | ND (< 12) | ND (< 12) | 160 | ND (< 12) | 180 | ND (< 12) | CHLFM = 20 ; MC = 14 |
| EW-8 | | 12/11/1995 | ND (< 5) | 820 | 190 | 12 | - | ND (< 5) | - | 130 | ND (< 5) | 150 | ND (< 10) | |
| EW-8 | | 3/7/1996 | ND (< 12) | 990 | 280 | 15 | 72 | ND (< 12) | ND (< 12) | 160 | ND (< 12) | 230 | ND (< 12) | MC = 16 |
| EW-8 | Dup | 3/7/1996 | ND (< 12) | 960 | 240 | ND (< 12) | 56 | ND (< 12) | ND (< 12) | 150 | ND (< 12) | 170 | ND (< 12) | |
| EW-8 | | 7/17/1996 | ND (< 25) | 990 | 290 | ND (< 25) | 62 | ND (< 25) | ND (< 25) | 150 | ND (< 25) | 150 | ND (< 25) | CBMA = 93 ; MC = 26 |
| EW-8 | | 9/13/1996 | ND (< 12) | 650 | 200 | 14 | 62 | ND (< 12) | ND (< 12) | 140 | ND (< 12) | 130 | ND (< 12) | CBMA = 106 |
| EW-8 | | 12/16/1996 | ND (< 25) | 500 | 150 | ND (< 25) | 39 | ND (< 25) | - | 110 | ND (< 25) | 180 | ND (< 50) | |
| EW-8 | | 3/6/1997 | ND (< 12) | 540 | 160 | ND (< 12) | 49 | ND (< 12) | ND (< 12) | 120 | ND (< 12) | 170 | ND (< 12) | CBMA = 104 |
| EW-8 | | 6/5/1997 | ND (< 10) | 380 | 110 | ND (< 10) | 35 | ND (< 10) | ND (< 10) | 80 | ND (< 10) | 120 | ND (< 10) | CBMA = 92 |
| EW-8 | | 9/9/1997 | ND (< 10) | 370 | 96 | ND (< 10) | 30 | ND (< 10) | ND (< 10) | 69 | ND (< 10) | 110 | ND (< 10) | CBMA = 98 |
| EW-8 | | 12/5/1997 | ND (< 10) | 320 | 87 | ND (< 10) | 28 | ND (< 10) | ND (< 10) | 64 | ND (< 10) | 100 | ND (< 10) | CBMA = 92 |
| EW-8 | | 6/3/1998 | ND (< 10) | 330 | 68 | ND (< 10) | 24 | ND (< 10) | ND (< 10) | 68 | ND (< 10) | 110 | ND (< 10) | CBMA = 115 |
| EW-8 | | 12/10/1998 | ND (< 10) | 262 | 58.5 | ND (< 10) | 19.3 | ND (< 10) | ND (< 10) | 53.7 | ND (< 10) | 88.5 | ND (< 10) | CBMA = 120 |
| EW-8 | | 6/8/1999 | ND (< 10.0) | 331 | 52.5 | ND (< 10.0) | 19.8 | ND (< 10.0) | ND (< 10.0) | 44.2 | ND (< 10.0) | 82.7 | ND (< 10.0) | |
| EW-8 | | 12/15/1999 | ND (< 5) | 300 | 200 | 33 | 50 | ND (< 5) | ND (< 5) | 74 | ND (< 5) | 63 | ND (< 5) | |
| EW-8 | | 6/8/2000 | ND (< 5.0) | 280 | 530 | 28 | 82 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 130 | ND (< 5.0) | |
| EW-8 | | 12/5/2000 | ND (< 25) | 630 | 1,400 | 47 | 170 | ND (< 25) | ND (< 25) | 220 | ND (< 25) | 300 | ND (< 25) | |
| EW-8 | | 6/22/2001 | ND (< 13) | 910 | 1,200 | 38 | 150 | ND (< 13) | ND (< 13) | 170 | ND (< 13) | 380 | ND (< 13) | |
| EW-8 | | 6/26/2003 | ND (< 5.0) | 750 | 610 | 30 | 79 | ND (< 5.0) | ND (< 5.0) | 100 | ND (< 5.0) | 170 | ND (< 5.0) | |
| EW-8 | | 6/22/2005 | ND (< 50) | 1,500 | 1,100 | 63 | 320 | ND (< 50) | ND (< 50) | 190 | ND (< 50) | 800 | ND (< 50) | |
| EW-8 | | 3/22/2007 | ND (< 50) | 3,500 | 1,300 | ND (< 50) | 120 | ND (< 50) | ND (< 50) | 220 | ND (< 50) | 1,600 | ND (< 50) | |
| EW-8 | | 3/30/2007 | ND (< 50) | 2,800 | 1,200 | ND (< 50) | 100 | ND (< 50) | ND (< 50) | 190 | ND (< 50) | 1,100 | ND (< 50) | |
| EW-8 | | 6/13/2007 | ND (< 25) | 3,300 | 1,600 | 33 | 150 | ND (< 25) | ND (< 25) | 230 | ND (< 25) | 1,700 | ND (< 25) | |
| EW-8 | Dup | 6/13/2007 | ND (< 25) | 3,200 | 1,600 | 33 | 150 | ND (< 25) | ND (< 25) | 240 | ND (< 25) | 1,600 | ND (< 25) | |
| EW-8 | | 2/11/2008 | ND (< 20) | 1,500 | 530 | ND (< 20) | 53 | ND (< 20) | ND (< 20) | 83 | ND (< 20) | 830 | ND (< 20) | |
| EW-8 | | 2/19/2008 | ND (< 20) | 2,000 | 750 | ND (< 20) | 76 | ND (< 20) | ND (< 20) | 120 | ND (< 20) | 1,100 | ND (< 20) | |
| EW-8 | | 4/22/2008 | ND (< 20) | 2,500 | 1,100 | 38 | 120 | ND (< 20) | ND (< 20) | 230 | ND (< 20) | 1,300 | ND (< 20) | |
| EW-8 | | 6/12/2008 | ND (< 25) | 2,500 | 1,200 | 51 | 160 | ND (< 25) | ND (< 25) | 290 | ND (< 25) | 1,400 | ND (< 25) | |
| EW-8 | Dup | 6/12/2008 | ND (< 25) | 2,200 | 1,200 | 47 | 140 | ND (< 25) | ND (< 25) | 290 | ND (< 25) | 1,200 | ND (< 25) | |
| EW-8 | | 12/10/2008 | ND (< 20) | 1,900 | 1,100 | 47 | 160 | ND (< 20) | ND (< 20) | 380 | ND (< 20) | 1,300 | ND (< 20) | |
| EW-8 | | 6/10/2009 | ND (< 50) | 1,700 | 1,200 | ND (< 50) | 140 | ND (< 50) | ND (< 50) | 240 | ND (< 50) | 860 | ND (< 50) | |
| EW-8 | | 4/5/2010 | ND (< 25) | 930 | 530 | ND (< 25) | 83 | ND (< 25) | ND (< 25) | 110 | ND (< 25) | 420 | ND (< 25) | |
| EW-8 | | 6/9/2010 | ND (< 10) | 1,100 | 510 | ND (< 10) | 99 | ND (< 10) | ND (< 10) | 90 | ND (< 10) | 490 | ND (< 10) | |
| EW-8 | | 6/15/2011 | 7.4 | 730 | 240 | 11 | 38 | ND (< 5.0) | ND (< 5.0) | 52 | ND (< 5.0) | 390 | ND (< 5.0) | |
| EW-8 | | 8/26/2011 | 8.5 | 710 | 230 | 14 | 40 | ND (< 5.0) | ND (< 5.0) | 69 | ND (< 5.0) | 390 | ND (< 5.0) | |
| EW-8 | | 9/29/2011 | 9 | 740 | 270 | 16 | 46 | ND (< 5.0) | ND (< 5.0) | 95 | ND (< 5.0) | 410 | ND (< 5.0) | |
| EW-8 | | 10/17/2011 | 10 | 820 | 340 | 17 | 53 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 390 | ND (< 5.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-8 | Dup | 10/17/2011 | 8.2 | 720 | 310 | 15 | 45 | ND (< 5.0) | ND (< 5.0) | 98 | ND (< 5.0) | 360 | ND (< 5.0) | |
| EW-8 | | 3/5/2012 | 7.9 | 620 | 330 | 17 | 64 | ND (< 5.0) | ND (< 5.0) | 110 | ND (< 5.0) | 350 | ND (< 5.0) | |
| EW-8 | | 6/13/2012 | 6.6 | 540 | 350 | 20 | 41 | ND (< 5.0) | ND (< 5.0) | 140 | ND (< 5.0) | 290 | ND (< 5.0) | |
| EW-8 | | 6/20/2013 | 17 | 920 | 870 | 36 | 79 | ND (< 5.0) | ND (< 5.0) | 360 | ND (< 5.0) | 660 | ND (< 5.0) | |
| EW-8 | | 1/16/2014 | 29 | 1,500 | 1,700 | 69 | 170 | ND (< 5.0) | ND (< 5.0) | 740 | ND (< 5.0) | 1,400 | ND (< 5.0) | |
| EW-8 | | 6/10/2014 | 20 | 950 | 660 | 36 | 68 | ND (< 10) | ND (< 10) | 350 | ND (< 10) | 810 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| EW-9 | | 5/31/1995 | ND (< 0.5) | 85 | 44 | 6.5 | - | ND (< 0.5) | ND (< 0.5) | 45 | ND (< 0.5) | 4.1 | ND (< 0.5) | CHLFM = 4.7 ; Freon 11 = 0.52 |
| EW-9 | Dup | 5/31/1995 | ND (< 0.5) | 86 | 44 | 6.8 | - | ND (< 0.5) | ND (< 0.5) | 44 | ND (< 0.5) | 4.4 | ND (< 0.5) | CHLFM = 4.8 ; Freon 11 = 0.57 |
| EW-9 | | 6/6/1995 | ND (< 0.5) | 92 | 42 | 7.4 | - | ND (< 0.5) | ND (< 0.5) | 51 | ND (< 0.5) | 4.3 | ND (< 0.5) | CHLFM = 5.5 ; Freon 11 = 0.51 |
| EW-9 | | 3/7/1996 | ND (< 0.5) | 22 | 13 | 3.2 | 3.6 | ND (< 0.5) | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.9 |
| EW-9 | | 7/17/1996 | ND (< 1) | 47 | 24 | 4.9 | 8.1 | ND (< 1) | ND (< 1) | 27 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 93 ; CHLFM = 3.9 |
| EW-9 | | 9/11/1996 | ND (< 1) | 42 | 23 | 4.2 | 10 | ND (< 1) | ND (< 1) | 26 | ND (< 1) | 1.9 | ND (< 1) | CBMA = 109 ; CHLFM = 2.6 ; MC = 1.1 |
| EW-9 | | 3/6/1997 | ND (< 0.5) | 32 | 15 | 2.7 | 6 | ND (< 0.5) | ND (< 0.5) | 15 | ND (< 0.5) | 2.1 | ND (< 0.5) | CBMA = 108 ; CHLFM = 2.1 |
| EW-9 | | 9/10/1997 | ND (< 0.5) | 24 | 4.9 | 12 | 5.2 | ND (< 0.5) | ND (< 0.5) | 35 | 0.54 | 0.54 | ND (< 0.5) | CBMA = 105 ; CHLFM = 1.5 |
| EW-9 | | 6/4/1998 | ND (< 0.5) | 20 | 7.2 | 1.6 | 4.1 | ND (< 0.5) | ND (< 0.5) | 7.1 | ND (< 0.5) | 1.5 | ND (< 0.5) | CBMA = 107 ; CHLFM = 0.69 |
| EW-9 | | 12/8/1998 | ND (< 5) | 21.8 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 10.9 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 107 |
| EW-9 | | 6/10/1999 | ND (< 0.500) | 2.89 | ND (< 0.500) | 2.34 | 0.674 | ND (< 0.500) | ND (< 0.500) | 17.0 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | CHLEA = 1.38 |
| EW-9 | | 6/22/2005 | ND (< 0.50) | 23 | 1.8 | 0.53 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| EW-10 | | 2/3/1993 | ND (< 0.5) | 190 | 43 | 7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 55 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Benzene = 0.6 ; Toluene = 0.9 |
| EW-10 | Dup | 2/3/1993 | ND (< 0.5) | 180 | 42 | 6.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 55 | ND (< 0.5) | 0.8 | ND (< 0.5) | Benzene = 0.6 ; Toluene = 0.9 |
| EW-10 | | 9/14/1994 | ND (< 5) | 1,700 | 590 | 42 | - | ND (< 5) | ND (< 5) | 500 | ND (< 5) | 320 | ND (< 5) | CHLFM = 7.4 |
| EW-10 | | 10/17/1994 | ND (< 10) | 1,500 | 560 | 27 | - | ND (< 10) | ND (< 10) | 410 | ND (< 10) | 300 | ND (< 10) | |
| EW-10 | Dup | 10/17/1994 | ND (< 10) | 1,600 | 580 | 27 | - | ND (< 10) | ND (< 10) | 410 | ND (< 10) | 320 | ND (< 10) | |
| EW-10 | | 12/16/1994 | ND (< 10) | 1,600 | 530 | 32 | - | ND (< 10) | - | 430 | ND (< 10) | 230 | ND (< 20) | |
| EW-10 | | 3/3/1995 | ND (< 0.5) | 1,300 | 540 | 29 | 1.6 | 1.6 | ND (< 0.5) | 420 | 1.6 | 250 | ND (< 0.5) | 1,1,2-TCA = 0.58 ; CHLFM = 6.8 ; Freon 11 = 2.9 |
| EW-10 | | 6/6/1995 | ND (< 5) | 650 | 230 | 6.9 | - | ND (< 5) | ND (< 5) | 180 | ND (< 5) | 200 | ND (< 5) | |
| EW-10 | | 11/17/1995 | ND (< 5) | 370 | 150 | 9.2 | - | ND (< 5) | ND (< 5) | 110 | ND (< 5) | 100 | ND (< 5) | CHLFM = 9.3 ; MC = 5.1 |
| EW-10 | Dup | 11/17/1995 | ND (< 5) | 390 | 160 | 9.8 | - | ND (< 5) | ND (< 5) | 110 | ND (< 5) | 110 | ND (< 5) | CHLFM = 10 ; MC = 5.4 |
| EW-10 | | 12/7/1995 | ND (< 5) | 420 | 130 | 7.1 | ND (< 25) | ND (< 5) | - | 92 | ND (< 5) | 100 | ND (< 10) | |
| EW-10 | | 3/7/1996 | ND (< 12) | 760 | 270 | ND (< 12) | 64 | ND (< 12) | ND (< 12) | 150 | ND (< 12) | 180 | ND (< 12) | |
| EW-10 | | 7/17/1996 | ND (< 5) | 330 | 110 | 6.1 | 31 | ND (< 5) | ND (< 5) | 63 | ND (< 5) | 60 | ND (< 5) | CBMA = 88 ; CHLFM = 7.2 |
| EW-10 | | 9/11/1996 | ND (< 5) | 240 | 84 | 5.6 | 29 | ND (< 5) | ND (< 5) | 58 | ND (< 5) | 55 | ND (< 5) | CBMA = 106 ; MC = 7.8 |
| EW-10 | | 12/10/1996 | ND (< 5) | 180 | 52 | ND (< 5) | 15 | ND (< 5) | - | 39 | ND (< 5) | 65 | ND (< 10) | |
| EW-10 | | 3/6/1997 | ND (< 2.5) | 170 | 60 | 6 | 27 | ND (< 2.5) | ND (< 2.5) | 50 | ND (< 2.5) | 66 | ND (< 2.5) | CBMA = 98 ; MC = 3.2 |
| EW-10 | | 6/6/1997 | ND (< 2.5) | 120 | 46 | 4.4 | 18 | ND (< 2.5) | ND (< 2.5) | 38 | ND (< 2.5) | 46 | ND (< 2.5) | CBMA = 93 ; CHLFM = 2.5 |
| EW-10 | | 9/10/1997 | ND (< 2.5) | 130 | 49 | 5.2 | 21 | 4.2 | ND (< 2.5) | 34 | ND (< 2.5) | 33 | ND (< 2.5) | CBMA = 87 ; CHLFM = 4 ; MC = 4.5 |
| EW-10 | | 12/5/1997 | ND (< 2.5) | 99 | 37 | 3.1 | 15 | ND (< 2.5) | ND (< 2.5) | 30 | ND (< 2.5) | 36 | ND (< 2.5) | CBMA = 103 |
| EW-10 | | 6/4/1998 | ND (< 2.5) | 83 | 30 | ND (< 2.5) | 8.22 | ND (< 2.5) | ND (< 2.5) | 29 | ND (< 2.5) | 29 | ND (< 2.5) | CBMA = 110 |
| EW-10 | | 12/8/1998 | ND (< 5) | 60.5 | 19 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | 19.6 | ND (< 5) | 15.9 | ND (< 5) | CBMA = 108 |
| EW-10 | | 6/8/1999 | ND (< 1.00) | 54.9 | 15.0 | 1.66 | 7.51 | ND (< 1.00) | ND (< 1.00) | 15.0 | ND (< 1.00) | 13.4 | ND (< 1.00) | |
| EW-10 | | 12/15/1999 | ND (< 1.3) | 50 | 11 | ND (< 1.3) | 6 | ND (< 1.3) | ND (< 1.3) | 10 | ND (< 1.3) | 9.3 | ND (< 1.3) | |
| EW-10 | Dup | 12/15/1999 | ND (< 1.3) | 50 | 10 | ND (< 1.3) | 6 | ND (< 1.3) | ND (< 1.3) | 9 | ND (< 1.3) | 9.8 | ND (< 1.3) | |
| EW-10 | | 6/8/2000 | ND (< 0.50) | 51 | 14 | 1.3 | 7.8 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | 15 | ND (< 0.50) | |
| EW-10 | Dup | 6/8/2000 | ND (< 0.50) | 49 | 14 | 1.3 | 8.0 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | 15 | ND (< 0.50) | |
| EW-10 | | 12/5/2000 | ND (< 1.0) | 47 | 12 | 1.3 | 6.0 | ND (< 1.0) | ND (< 1.0) | 13 | ND (< 1.0) | 13 | ND (< 1.0) | |
| EW-10 | | 6/22/2001 | ND (< 1.0) | 52 | 11 | 1.4 | 6.3 | ND (< 1.0) | ND (< 1.0) | 13 | ND (< 1.0) | 9.0 | ND (< 1.0) | |
| EW-10 | Dup | 6/22/2001 | ND (< 2.5) | 45 | 8.3 | ND (< 2.5) | 3.0 | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| EW-10 | | 6/26/2003 | ND (< 0.50) | 34 | 5.3 | 1.0 | 3.9 | ND (< 0.50) | ND (< 0.50) | 7.5 | ND (< 0.50) | 5.8 | ND (< 0.50) | |
| EW-10 | Dup | 6/26/2003 | ND (< 0.50) | 36 | 5.8 | 1.4 | 4.0 | ND (< 0.50) | ND (< 0.50) | 8.1 | ND (< 0.50) | 4.0 | ND (< 0.50) | |
| EW-10 | | 6/22/2005 | ND (< 0.50) | 39 | 7.5 | 1.6 | 7.9 | ND (< 0.50) | ND (< 0.50) | 8.4 | ND (< 0.50) | 11 | ND (< 0.50) | CHLFM = 0.59 |
| EW-10 | | 6/13/2007 | ND (< 5.0) | 85 | 540 | 42 | 91 | ND (< 5.0) | ND (< 5.0) | 160 | ND (< 5.0) | 110 | ND (< 5.0) | |
| EW-10 | Dup | 6/13/2007 | ND (< 5.0) | 77 | 460 | 37 | 78 | ND (< 5.0) | ND (< 5.0) | 130 | ND (< 5.0) | 98 | ND (< 5.0) | |
| EW-10 | | 6/12/2008 | ND (< 5.0) | 140 | 370 | 26 | 53 | ND (< 5.0) | ND (< 5.0) | 92 | ND (< 5.0) | 110 | ND (< 5.0) | |
| EW-10 | Dup | 6/12/2008 | ND (< 10) | 160 | 420 | 30 | 62 | ND (< 10) | ND (< 10) | 110 | ND (< 10) | 130 | ND (< 10) | |
| EW-10 | | 12/10/2008 | ND (< 1.0) | 55 | 180 | 24 | 12 | ND (< 1.0) | ND (< 1.0) | 66 | ND (< 1.0) | 56 | ND (< 1.0) | |
| EW-10 | | 6/11/2009 | ND (< 5.0) | 100 | 210 | 13 | 28 | ND (< 5.0) | ND (< 5.0) | 47 | ND (< 5.0) | 58 | ND (< 5.0) | |
| EW-10 | | 6/16/2011 | ND (< 0.50) | 19 | 11 | 1.3 | 4.5 | ND (< 0.50) | ND (< 0.50) | 5.0 | ND (< 0.50) | 5.8 | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-10 | | 3/5/2012 | ND (< 0.50) | 16 | 6.6 | 0.99 | 4.3 | ND (< 0.50) | ND (< 0.50) | 4.0 | ND (< 0.50) | 4.3 | ND (< 0.50) | |
| EW-10 | | 6/20/2013 | ND (< 0.50) | 22 | 8.8 | 1.2 | 4.6 | ND (< 0.50) | ND (< 0.50) | 6.7 | ND (< 0.50) | 5.4 | ND (< 0.50) | |
| EW-10 | | 1/16/2014 | ND (< 0.50) | 18 | 6.5 | 0.96 | 3.4 | ND (< 0.50) | ND (< 0.50) | 4.5 | ND (< 0.50) | 4.4 | ND (< 0.50) | |
| EW-10 | | 6/11/2014 | ND (< 0.50) | 26 | 8.6 | 1.4 | 5.0 | ND (< 0.50) | ND (< 0.50) | 6.7 | ND (< 0.50) | 6.8 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| EW-11 | | 2/1/1993 | 3,300 | 160 | 160 | ND (< 10) | ND (< 50) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| EW-11 | | 9/8/1994 | 3,000 | 200 | 230 | 4.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 6.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1,1,2-TCA = 0.61 ; CHLBZ = 20 ; CHLFM = 0.97 |
| EW-11 | | 12/6/1994 | 2,000 | 180 | 120 | ND (< 100) | ND (< 100) | ND (< 100) | - | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 200) | |
| EW-11 | | 3/7/1995 | 3,000 | 180 | 160 | ND (< 5) | - | ND (< 5) | ND (< 5) | 9.8 | ND (< 5) | ND (< 5) | ND (< 5) | |
| EW-11 | | 6/8/1995 | 3,300 | 170 | 170 | ND (< 5) | - | ND (< 5) | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | CHLBZ = 20 |
| EW-11 | | 9/8/1995 | 3,000 | 280 | 320 | ND (< 50) | - | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | |
| EW-11 | | 12/11/1995 | 1,600 | 150 | 100 | ND (< 5) | - | ND (< 5) | - | 5.6 | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| EW-11R | | 11/17/1995 | 1,000 | 170 | 120 | ND (< 12) | - | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | BDCHLMA = 12 ; CHLFM = 13 ; MC = 14 |
| EW-11R | | 3/7/1996 | 650 | 360 | 76 | ND (< 12) | 31 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | |
| EW-11R | | 6/7/1996 | 370 | 200 | 30 | 5.1 | 15 | ND (< 5) | ND (< 5) | 7.4 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 111 |
| EW-11R | | 9/12/1996 | 1,100 | 340 | 67 | ND (< 12) | 74 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 97 ; MC = 17 |
| EW-11R | | 12/13/1996 | 1,000 | 260 | 49 | ND (< 25) | 47 | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| EW-11R | | 3/7/1997 | 660 | 290 | 56 | 10 | 45 | ND (< 10) | ND (< 10) | 38 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 99 |
| EW-11R | | 6/6/1997 | 520 | 270 | 53 | 11 | 39 | ND (< 10) | ND (< 10) | 55 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 100 |
| EW-11R | | 9/12/1997 | 500 | 310 | 75 | ND (< 10) | 30 | 10 | ND (< 10) | 54 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 100 |
| EW-11R | | 12/4/1997 | 340 | 210 | 42 | ND (< 10) | 24 | ND (< 10) | ND (< 10) | 41 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 91 |
| EW-11R | | 6/3/1998 | 280 | 170 | 27 | ND (< 10) | 18 | ND (< 10) | ND (< 10) | 38 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 111 |
| EW-11R | | 12/11/1998 | 208 | 171 | 34.9 | 6.45 | 14.1 | ND (< 5) | ND (< 5) | 44.2 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 95.7 |
| EW-11R | | 6/10/1999 | 211 | 150 | 25.1 | ND (< 10.0) | 16.4 | ND (< 10.0) | ND (< 10.0) | 34.1 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| EW-11R | Dup | 6/10/1999 | 222 | 156 | 27.7 | ND (< 12.5) | 17.6 | ND (< 12.5) | ND (< 12.5) | 35.7 | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | |
| EW-11R | | 12/15/1999 | 230 | 220 | 33 | 5.5 | 21 | ND (< 2.5) | ND (< 2.5) | 43 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | | 6/9/2000 | 230 | 200 | 25 | ND (< 5.0) | 14 | ND (< 5.0) | ND (< 5.0) | 25 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-11R | Dup | 6/9/2000 | 280 | 260 | 35 | ND (< 5.0) | 22 | ND (< 5.0) | ND (< 5.0) | 35 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-11R | | 12/12/2000 | 170 | 180 | 26 | ND (< 10) | 13 | ND (< 10) | ND (< 10) | 30 | ND (< 10) | ND (< 40) | ND (< 10) | |
| EW-11R | | 6/22/2001 | 27 | 230 | ND (< 5.0) | ND (< 5.0) | 6.1 | ND (< 5.0) | ND (< 5.0) | 5.7 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-11R | | 6/27/2002 | 250 | 140 | 29 | 3.1 | 21 | ND (< 2.0) | ND (< 2.0) | 20 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| EW-11R | Dup | 6/27/2002 | 230 | 140 | 28 | 3.1 | 20 | ND (< 2.0) | ND (< 2.0) | 20 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| EW-11R | | 6/26/2003 | 260 | 130 | 29 | ND (< 2.5) | 13 | ND (< 2.5) | ND (< 2.5) | 11 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | | 6/22/2004 | 230 | 160 | 19 | ND (< 2.5) | 15 | ND (< 2.5) | ND (< 2.5) | 13 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | Dup | 6/22/2004 | 250 | 180 | 25 | 3.0 | 19 | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | | 6/29/2005 | 250 | 150 | 21 | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 2.5) | 13 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | Dup | 6/29/2005 | 210 | 160 | 20 | ND (< 2.5) | 21 | ND (< 2.5) | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | | 6/29/2006 | 300 | 150 | 18 | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-11R | | 6/19/2007 | 380 | 170 | 20 | ND (< 2.0) | 19 | ND (< 2.0) | ND (< 2.0) | 10 | ND (< 2.0) | 2.1 | ND (< 2.0) | |
| EW-11R | Dup | 6/19/2007 | 390 | 160 | 19 | ND (< 2.0) | 20 | ND (< 2.0) | ND (< 2.0) | 11 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| EW-11R | | 6/10/2008 | 360 | 140 | 15 | ND (< 5.0) | 16 | ND (< 5.0) | ND (< 5.0) | 8.8 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-11R | | 6/10/2009 | 360 | 150 | 16 | 2.1 | 16 | ND (< 0.50) | ND (< 0.50) | 8.2 | ND (< 0.50) | 1.4 | ND (< 0.50) | |
| EW-11R | | 6/8/2010 | 500 | 170 | 13 | ND (< 5.0) | 17 | ND (< 5.0) | ND (< 5.0) | 7.7 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-11R | | 6/14/2011 | 470 | 150 | 12 | ND (< 5.0) | 19 | ND (< 5.0) | ND (< 5.0) | 8.8 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-11R | | 6/12/2012 | 480 | 150 | 12 | ND (< 5.0) | 12 | ND (< 5.0) | ND (< 5.0) | 13 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-11R | | 4/4/2013 | 450 | 120 | 8.4 | 2.5 | 11 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 1.2 | ND (< 0.50) | |
| EW-11R | | 6/18/2013 | 250 | 80 | 5.6 | 8.0 | 14 | ND (< 5.0) | ND (< 5.0) | 840 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | Carbon = 88 |
| EW-11R | | 8/23/2013 | 55 | 19 | 3.5 | 5.8 | 11 | ND (< 2.5) | ND (< 2.5) | 1,700 | 7.2 | ND (< 2.5) | 170 | |
| EW-11R | Dup | 8/23/2013 | 27 | 12 | 2.7 | 5.1 | 7.9 | ND (< 2.5) | ND (< 2.5) | 1,600 | 5.5 | ND (< 2.5) | 140 | |
| EW-11R | | 11/22/2013 | 42 | 13 | ND (< 2.5) | 3.9 | 3.1 | ND (< 2.5) | ND (< 2.5) | 280 | 5.3 | ND (< 2.5) | 200 | |
| EW-11R | | 5/22/2014 | 46 | 22 | 2.6 | 3.0 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | 130 | |
| EW-11R | Dup | 5/22/2014 | 48 | 23 | 2.6 | 3.1 | 2.6 | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | 140 | |
| EW-11R | | 6/11/2014 | 51 | 28 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 170 | ND (< 5.0) | ND (< 5.0) | 200 | |
| | | | | | | | | | | | | | | |
| EW-12 | | 9/12/1996 | ND (< 0.5) | 30 | 3.4 | 1.3 | 2.8 | ND (< 0.5) | ND (< 0.5) | 0.84 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 2.2 |
| EW-12 | | 11/19/1996 | ND (< 1) | 70 | 9.2 | 3.1 | 7.1 | ND (< 1) | ND (< 1) | 2 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 106 ; CHLFM = 5.4 ; MC = 1.1 |
| EW-12 | | 12/16/1996 | ND (< 5) | 63 | 5.6 | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-12 | | 3/6/1997 | ND (< 0.5) | 41 | 5.6 | 1.3 | 3 | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-12 | | 6/4/1997 | ND (< 0.5) | 38 | 5.6 | 1.2 | 2.7 | ND (< 0.5) | ND (< 0.5) | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| EW-12 | | 9/9/1997 | ND (< 0.5) | 31 | 3.8 | 0.9 | 1.9 | ND (< 0.5) | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| EW-12 | | 12/5/1997 | ND (< 0.5) | 25 | 3 | 0.76 | 1.6 | ND (< 0.5) | ND (< 0.5) | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| EW-12 | | 6/4/1998 | ND (< 0.5) | 17 | 1.4 | ND (< 0.5) | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| EW-12 | | 12/9/1998 | ND (< 0.5) | 18.3 | 2.23 | ND (< 0.5) | 0.954 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| EW-12 | | 6/9/1999 | ND (< 0.500) | 13.7 | 1.12 | ND (< 0.500) | 0.871 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| EW-12 | | 12/15/1999 | ND (< 0.5) | 15 | 0.88 | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-12 | | 6/8/2000 | ND (< 0.50) | 15 | 0.88 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 12/11/2000 | ND (< 0.50) | 14 | 0.85 | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| EW-12 | | 6/22/2001 | ND (< 0.50) | 17 | 1.1 | ND (< 0.50) | 0.78 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| EW-12 | | 6/27/2002 | ND (< 0.50) | 13 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/26/2003 | ND (< 0.50) | 8.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/25/2004 | ND (< 0.50) | 10 | ND (< 0.50) | ND (< 0.50) | 0.71 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/21/2005 | ND (< 0.50) | 11 | 0.61 | ND (< 0.50) | 0.74 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 7/7/2006 | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/20/2007 | ND (< 0.50) | 5.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/12/2008 | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/16/2009 | ND (< 0.50) | 13 | 0.70 | 1.2 | 1.6 | ND (< 0.50) | ND (< 0.50) | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/9/2010 | ND (< 0.50) | 5.9 | ND (< 0.50) | ND (< 0.50) | 0.87 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/16/2011 | ND (< 0.50) | 7.1 | 0.51 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/14/2012 | ND (< 0.50) | 12 | 0.54 | 0.77 | 1.5 | ND (< 0.50) | ND (< 0.50) | 0.52 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/20/2013 | ND (< 0.50) | 5.4 | ND (< 0.50) | ND (< 0.50) | 0.56 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | Dup | 6/20/2013 | ND (< 0.50) | 4.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-12 | | 6/11/2014 | ND (< 0.50) | 5.0 | ND (< 0.50) | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| EW-13 | | 4/30/1993 | ND (< 0.5) | 46 | 4.4 | 3.9 | - | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Toluene = 0.5 |
| EW-13 | | 6/11/1993 | ND (< 0.5) | 55 | 4.1 | 4.2 | - | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-13 | | 9/8/1993 | ND (< 0.5) | 71 | 9.3 | 6.3 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-13 | | 12/13/1993 | ND (< 5) | 62 | 5.9 | 5.4 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-13 | | 3/3/1994 | ND (< 0.5) | 73 | 6.2 | 5 | - | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-13 | | 6/3/1994 | ND (< 0.5) | 36 | 3.4 | 3.2 | - | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-13 | | 2/8/1995 | ND (< 5) | 150 | 22 | 7.3 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-13 | | 3/6/1995 | ND (< 0.5) | 190 | 29 | 6.6 | - | ND (< 0.5) | ND (< 0.5) | 3.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-13 | | 8/16/1995 | ND (< 5) | 160 | 23 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | |
| EW-13 | | 9/8/1995 | ND (< 2.5) | 130 | 25 | 4.5 | - | ND (< 2.5) | ND (< 2.5) | 3.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | MC = 5.2 |
| EW-13 | | 3/5/1997 | ND (< 0.5) | 85 | 9.4 | 3.3 | 7.7 | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| EW-13 | | 6/4/1997 | ND (< 1) | 85 | 13 | 4 | 9.8 | ND (< 1) | ND (< 1) | 2.7 | ND (< 1) | 1.1 | ND (< 1) | CBMA = 106 |
| EW-13 | | 9/9/1997 | ND (< 0.5) | 33 | 5 | 1.5 | 3.5 | ND (< 0.5) | ND (< 0.5) | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| EW-13 | | 12/5/1997 | ND (< 0.5) | 52 | 7.6 | 2.6 | 6.5 | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | 0.54 | ND (< 0.5) | CBMA = 97 |
| EW-13 | | 6/4/1998 | ND (< 2.5) | 51 | 5.2 | ND (< 2.5) | 4.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 113 |
| EW-13 | | 12/9/1998 | ND (< 2.5) | 60.1 | 8.76 | ND (< 2.5) | 5.05 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 95 |
| EW-13 | | 6/9/1999 | ND (< 1.00) | 39.6 | 3.95 | 1.59 | 4.14 | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | |
| EW-13 | | 12/15/1999 | ND (< 1.3) | 45 | 2.8 | ND (< 1.3) | 3.2 | ND (< 1.3) | ND (< 1.3) | ND (< 1.3) | ND (< 1.3) | ND (< 1.3) | ND (< 1.3) | |
| EW-13 | | 6/8/2000 | ND (< 1.0) | 43 | 3.5 | 1.0 | 3.6 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| EW-13 | | 12/11/2000 | ND (< 1.0) | 35 | 3.0 | ND (< 1.0) | 2.9 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| EW-13 | | 6/22/2001 | ND (< 1.0) | 38 | 2.9 | ND (< 1.0) | 3.6 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| EW-13 | | 6/26/2003 | ND (< 0.50) | 22 | 1.8 | 0.81 | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/21/2005 | ND (< 0.50) | 23 | 1.8 | 1.2 | 3.0 | ND (< 0.50) | ND (< 0.50) | 0.90 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/12/2007 | ND (< 0.50) | 22 | 1.2 | 2.9 | 6.3 | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/15/2009 | ND (< 0.50) | 22 | 1.3 | 3.9 | 7.3 | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/9/2010 | ND (< 0.50) | 0.53 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | Dup | 6/9/2010 | ND (< 0.50) | 0.59 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/16/2011 | ND (< 0.50) | 0.69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | Dup | 6/16/2011 | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/14/2012 | ND (< 0.50) | 24 | 1.1 | 4.4 | 7.2 | ND (< 0.50) | ND (< 0.50) | 4.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/20/2013 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-13 | | 6/11/2014 | ND (< 0.50) | 29 | 1.3 | 4.8 | 10 | ND (< 0.50) | ND (< 0.50) | 4.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| EW-14 | | 10/16/1995 | ND (< 0.5) | 24 | 6.9 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.2 ; CHLFM = 39 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-14 | | 12/8/1995 | ND (< 5) | 33 | 7.7 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 24 |
| EW-14 | | 3/6/1996 | ND (< 5) | 260 | 52 | ND (< 5) | 36 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 8.3 |
| EW-14 | | 6/11/1996 | ND (< 5) | 200 | 32 | ND (< 5) | 25 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 116 ; CHLFM = 8 |
| EW-14 | | 9/12/1996 | ND (< 2.5) | 170 | 32 | 4.4 | 28 | ND (< 2.5) | ND (< 2.5) | 4.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 ; CHLFM = 5.9 ; MC = 6.9 |
| EW-14 | | 11/19/1996 | ND (< 5) | 560 | 100 | 16 | 83 | ND (< 5) | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 105 |
| EW-14 | | 12/16/1996 | ND (< 10) | 320 | 52 | ND (< 10) | 38 | ND (< 10) | - | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 20) | |
| EW-14 | | 3/5/1997 | ND (< 5) | 250 | 41 | ND (< 5) | 27 | ND (< 5) | ND (< 5) | 6.2 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 91 |
| EW-14 | | 6/4/1997 | ND (< 2.5) | 230 | 41 | 6.5 | 27 | ND (< 2.5) | ND (< 2.5) | 7.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 98 ; MC = 2.9 |
| EW-14 | | 9/11/1997 | ND (< 5) | 270 | 47 | ND (< 5) | 25 | ND (< 5) | ND (< 5) | 7 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 104 |
| EW-14 | | 12/2/1997 | ND (< 2.5) | 220 | 27 | 3.4 | 21 | ND (< 2.5) | ND (< 2.5) | 4.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 93 |
| EW-14 | | 6/4/1998 | ND (< 5) | 200 | 22 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 124 |
| EW-14 | | 12/9/1998 | ND (< 5) | 186 | 23.8 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 98.3 |
| EW-14 | | 6/9/1999 | ND (< 10.0) | 160 | 16.7 | ND (< 10.0) | 13.8 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| EW-14 | Dup | 6/9/1999 | ND (< 10.0) | 145 | 14.7 | ND (< 10.0) | 12.4 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| EW-14 | | 12/15/1999 | ND (< 2.5) | 160 | 7.5 | ND (< 2.5) | 6.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-14 | | 6/9/2000 | ND (< 2.5) | 190 | 11 | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-14 | | 12/11/2000 | ND (< 2.5) | 140 | 9.8 | ND (< 2.5) | 8.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| EW-14 | | 6/22/2001 | ND (< 2.5) | 200 | 46 | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 2.5) | 4.3 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| EW-14 | | 6/27/2002 | ND (< 2.5) | 120 | 7.2 | ND (< 2.5) | 6.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-14 | | 6/26/2003 | ND (< 0.50) | 85 | 4.8 | 1.2 | 5.6 | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-14 | | 6/25/2004 | ND (< 0.50) | 99 | 5.2 | 1.4 | 5.5 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-14 | | 6/21/2005 | ND (< 0.50) | 87 | 5.0 | 1.3 | 6.3 | ND (< 0.50) | ND (< 0.50) | 2.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-14 | | 6/28/2006 | ND (< 0.50) | 75 | 2.0 | 0.84 | 2.5 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| EW-14 | Dup | 6/28/2006 | ND (< 0.50) | 80 | 2.2 | 0.94 | 2.7 | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| EW-15 | | 10/16/1995 | 5 | 63 | ND (< 0.5) | 0.94 | - | ND (< 0.5) | ND (< 0.5) | 12 | 11 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 |
| EW-15 | | 12/6/1995 | ND (< 5) | 62 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 13 | 8.2 | ND (< 5) | ND (< 10) | |
| EW-15 | | 3/6/1996 | 13 | 100 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.8 | 14 | ND (< 2.5) | ND (< 2.5) | |
| EW-15 | | 6/11/1996 | 9 | 85 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 8 | 9.6 | ND (< 2.5) | ND (< 2.5) | CBMA = 104 |
| EW-15 | | 6/24/1996 | 9.4 | 85 | ND (< 1) | 1.2 | ND (< 1) | ND (< 1) | ND (< 1) | 16 | 11 | ND (< 1) | ND (< 1) | |
| EW-15 | | 9/10/1996 | 230 | 33 | 12 | ND (< 2.5) | 15 | ND (< 2.5) | ND (< 2.5) | 9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 99 |
| EW-15 | | 12/11/1996 | 170 | 25 | 6.4 | ND (< 5) | 9.1 | ND (< 5) | - | 14 | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-15 | | 3/5/1997 | 130 | 21 | 7.5 | ND (< 1.2) | 10 | ND (< 1.2) | ND (< 1.2) | 9 | 1.7 | ND (< 1.2) | ND (< 1.2) | CBMA = 89 |
| EW-15 | | 6/3/1997 | 36 | 3.5 | 2 | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| EW-15 | | 9/9/1997 | 160 | 17 | 10 | 2.5 | 11 | ND (< 2.5) | ND (< 2.5) | 5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 95 |
| EW-15 | | 12/3/1997 | 120 | 15 | 7.8 | ND (< 2.5) | 8.4 | ND (< 2.5) | ND (< 2.5) | 4.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 85 |
| EW-15 | | 6/3/1998 | 110 | 15 | 5.2 | ND (< 2.5) | 7.8 | ND (< 2.5) | ND (< 2.5) | 8.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 111 |
| EW-15 | | 12/8/1998 | 186 | 13.1 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 103 |
| EW-15 | | 6/9/1999 | 152 | 11.1 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| EW-15 | | 12/15/1999 | 290 | 92 | ND (< 5) | ND (< 5) | 8.6 | ND (< 5) | ND (< 5) | 40 | ND (< 5) | ND (< 5) | ND (< 5) | MC = 6.4 |
| EW-15 | | 6/9/2000 | 61 | 7.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| EW-15 | | 12/11/2000 | 160 | 12 | ND (< 5.0) | ND (< 5.0) | 6.2 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-15 | | 6/22/2001 | 180 | 18 | ND (< 5.0) | ND (< 5.0) | 6.1 | ND (< 5.0) | ND (< 5.0) | 6.7 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-15 | | 6/26/2003 | 140 | 13 | 2.8 | ND (< 2.5) | 4.0 | ND (< 2.5) | ND (< 2.5) | 4.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-15 | | 6/20/2005 | 150 | 12 | 2.7 | ND (< 1.0) | 5.7 | ND (< 1.0) | ND (< 1.0) | 7.8 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| EW-15 | | 6/18/2007 | 9.4 | 16 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.4 | 2.8 | ND (< 0.50) | ND (< 0.50) | |
| EW-15 | Dup | 6/18/2007 | 13 | 21 | ND (< 0.50) | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.3 | 4.3 | ND (< 0.50) | ND (< 0.50) | |
| EW-15 | | 6/10/2009 | 140 | 35 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 16 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| EW-15 | | 6/15/2011 | 73 | 12 | 0.93 | 0.73 | 2.1 | ND (< 0.50) | ND (< 0.50) | 9.2 | 1.2 | ND (< 0.50) | ND (< 0.50) | |
| EW-15 | | 6/18/2013 | 100 | 8.5 | 0.63 | 0.54 | 1.6 | ND (< 0.50) | ND (< 0.50) | 9.5 | 0.61 | ND (< 0.50) | ND (< 0.50) | |
| EW-15 | | 11/13/2013 | 230 | 18 | 2.8 | 1.0 | 5.4 | ND (< 0.50) | ND (< 0.50) | 9.4 | 1.1 | ND (< 0.50) | ND (< 0.50) | |
| EW-15 | | 2/25/2014 | 15 | 17 | ND (< 0.50) | 0.81 | 1.2 | ND (< 0.50) | ND (< 0.50) | 75 | 5.3 | ND (< 0.50) | 0.62 | |
| EW-15 | | 5/13/2014 | 12 | 29 | ND (< 0.50) | 1.2 | 1.2 | ND (< 0.50) | ND (< 0.50) | 11 | 4.4 | ND (< 0.50) | 0.98 | |
| EW-15 | | 8/13/2014 | 13 | 31 | ND (< 0.50) | 1.3 | 1.9 | ND (< 0.50) | ND (< 0.50) | 16 | 3.5 | ND (< 0.50) | 1.7 | |
| | | | | | | | | | | | | | | |
| EW-16 | | 10/16/1995 | ND (< 0.5) | 0.86 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.86 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-16 | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| EW-16 | | 3/5/1996 | ND (< 0.5) | 0.73 | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.91 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| EW-16 | | 6/7/1996 | ND (< 0.5) | 1.2 | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.98 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 119 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EW-16 | | 6/24/1996 | ND (< 0.5) | 1.2 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.0 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| EW-16 | | 9/10/1996 | 340 | 140 | 8 | 3.3 | 12 | ND (< 2.5) | ND (< 2.5) | 42 | 5.9 | ND (< 2.5) | ND (< 2.5) | |
| EW-16 | | 10/11/1996 | 340 | 74 | 4.6 | 3 | 8.2 | ND (< 0.5) | ND (< 1) | 32 | 5.7 | ND (< 0.5) | ND (< 0.5) | |
| EW-16 | | 3/5/1997 | 270 | 110 | ND (< 5) | ND (< 5) | 11 | ND (< 5) | ND (< 5) | 23 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 106 |
| EW-16 | | 6/3/1997 | 290 | 110 | 6.9 | ND (< 5) | 5.7 | ND (< 5) | ND (< 5) | 42 | 6.7 | ND (< 5) | ND (< 5) | CBMA = 91 |
| EW-16 | | 9/9/1997 | 270 | 91 | 8.9 | ND (< 5) | 9.1 | ND (< 5) | ND (< 5) | 40 | 5.2 | ND (< 5) | ND (< 5) | CBMA = 104 |
| EW-16 | | 12/3/1997 | 250 | 84 | 8.4 | ND (< 5) | 9.1 | ND (< 5) | ND (< 5) | 36 | 5.2 | ND (< 5) | ND (< 5) | CBMA = 95 |
| EW-16 | | 6/3/1998 | 300 | 93 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 21 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 110 |
| EW-16 | | 12/8/1998 | 299 | 84.1 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 45.9 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 124 |
| EW-16 | | 6/9/1999 | 218 | 57.5 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | 62.3 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| EW-16 | | 12/15/1999 | 120 | 11 | 3.2 | ND (< 2.5) | 6.5 | ND (< 2.5) | ND (< 2.5) | 2.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| EW-16 | | 6/9/2000 | 220 | 54 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 20 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-16 | | 12/11/2000 | 310 | 80 | ND (< 5.0) | ND (< 5.0) | 6.3 | ND (< 5.0) | ND (< 5.0) | 36 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-16 | | 6/22/2001 | 270 | 74 | ND (< 5.0) | ND (< 5.0) | 6.0 | ND (< 5.0) | ND (< 5.0) | 59 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| EW-16 | | 7/7/2003 | 140 | 58 | ND (< 1.0) | 1.9 | 1.3 | ND (< 1.0) | ND (< 1.0) | 12 | 2.8 | ND (< 1.0) | ND (< 1.0) | |
| EW-16 | | 6/20/2005 | 270 | 49 | 2.8 | 3.0 | 8.8 | ND (< 2.0) | ND (< 2.0) | 33 | 2.6 | ND (< 2.0) | ND (< 2.0) | |
| EW-16 | | 6/19/2007 | 100 | 41 | ND (< 2.0) | ND (< 2.0) | 4.3 | ND (< 2.0) | ND (< 2.0) | 6.3 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| EW-16 | | 6/10/2009 | 110 | 32 | 1.4 | 1.3 | 3.0 | ND (< 1.0) | ND (< 1.0) | 13 | 1.7 | ND (< 1.0) | ND (< 1.0) | |
| EW-16 | | 6/15/2011 | 140 | 45 | 1.5 | 1.8 | 5.2 | ND (< 0.50) | ND (< 0.50) | 14 | 2.0 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | Dup | 6/15/2011 | 120 | 44 | 1.5 | 1.9 | 4.9 | ND (< 0.50) | ND (< 0.50) | 14 | 2.0 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | | 6/18/2013 | 170 | 45 | 1.4 | 1.7 | 3.6 | ND (< 0.50) | ND (< 0.50) | 10 | 1.2 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | | 11/13/2013 | 270 | 56 | 2.2 | 2.2 | 5.5 | ND (< 0.50) | ND (< 0.50) | 10 | 1.2 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | Dup | 11/13/2013 | 180 | 46 | 1.7 | 1.8 | 3.8 | ND (< 0.50) | ND (< 0.50) | 9.5 | 1.1 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | | 2/25/2014 | 130 | 40 | 1.6 | 1.6 | 3.4 | ND (< 0.50) | ND (< 0.50) | 34 | 2.1 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | | 5/13/2014 | 28 | 9.6 | 0.50 | 1.1 | 1.9 | ND (< 0.50) | ND (< 0.50) | 190 | 1.9 | ND (< 0.50) | ND (< 0.50) | |
| EW-16 | | 8/13/2014 | 22 | 9.0 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 200 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| EW-3 | | 1/7/1991 | 0.2 | 3.4 | 7.2 | 1.9 | 2 | 0.3 | 0.5 | - | - | 2.5 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 3.5 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| EW-3 | | 2/5/1991 | 0.2 | 3.3 | 12 | 1.3 | 4.8 | 0.3 | 0.5 | - | - | 2.2 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 2.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.8 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| | | | | | | | | | | | | | | |
| F20A | | 12/17/1990 | 2 | 5 | 29 | 15 | 20 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 3.4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 10 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F20A | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | 38 | 26 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 4 ; Freon 11 = 13 |
| F20A | | 8/2/1991 | ND (< 0.5) | 1.3 | 51 | 30 | - | 0.5 | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5.5 ; Freon 11 = 12 |
| F20A | | 10/14/1991 | ND (< 0.5) | ND (< 0.5) | 44 | 25 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3 ; Freon 11 = 8.8 |
| F20A | | 12/4/1991 | ND (< 5) | ND (< 5) | 56 | 25 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 5.9 |
| F20A | | 2/24/1992 | ND (< 0.5) | ND (< 0.5) | 31 | 21 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.4 ; Freon 11 = 6.4 |
| | | | | | | | | | | | | | | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F21A1U | | 12/18/1990 | 2 | 81 | 3 | 4 | 3 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 3.4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F21A1U | | 5/3/1991 | ND (< 1) | 370 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 3 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F21A1U | Dup | 5/3/1991 | ND (< 1) | 340 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 3 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F21A1U | | 7/26/1991 | ND (< 0.5) | 270 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F21A1U | | 10/3/1991 | ND (< 0.5) | 200 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F21A1U | | 12/10/1991 | ND (< 5) | 250 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F21A1U | | 3/11/1992 | ND (< 0.5) | 290 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F21A1U | | 6/11/1992 | ND (< 1) | 410 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 2 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F21A1U | | 9/15/1992 | ND (< 0.5) | 260 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F21A1U | | 12/7/1992 | ND (< 5) | 210 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F21A1U | | 3/8/1993 | ND (< 2.5) | 560 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F21A1U | | 6/2/1993 | ND (< 1) | 360 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.8 |
| F21A1U | | 9/8/1993 | ND (< 0.5) | 190 | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 1.7 ; CHLFM = 17 |
| F21A1U | | 12/7/1993 | ND (< 5) | 140 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 42 |
| F21A1U | | 3/2/1994 | ND (< 0.5) | 110 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 40 |
| F21A1U | | 6/7/1994 | ND (< 0.5) | 52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 5.7 ; CHLFM = 49 ; DBCM = 0.56 |
| F21A1U | | 9/2/1994 | ND (< 0.5) | 33 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 5.8 ; CHLFM = 53 |
| F21A1U | | 12/7/1994 | ND (< 5) | 29 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 51 |
| F21A1U | | 3/2/1995 | ND (< 0.5) | 21 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.6 ; CHLFM = 43 |
| F21A1U | | 6/8/1995 | ND (< 1) | 19 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 81 |
| F21A1U | | 11/9/1995 | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 35 |
| F21A1U | | 12/8/1995 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 57 |
| F21A1U | Dup | 12/8/1995 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 57 |
| F21A1U | | 3/6/1996 | ND (< 0.5) | 46 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 32 |
| F21A1U | | 6/6/1996 | ND (< 0.5) | 36 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 121 ; CHLFM = 38 |
| F21A1U | | 9/12/1996 | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 ; CHLFM = 55 |
| F21A1U | | 12/12/1996 | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 66 |
| F21A1U | | 3/5/1997 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 ; CHLFM = 39 |
| F21A1U | | 6/5/1997 | ND (< 0.5) | 22 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 ; CHLFM = 48 |
| F21A1U | | 9/11/1997 | ND (< 0.5) | 31 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; CHLFM = 37 |
| F21A1U | | 12/4/1997 | ND (< 0.5) | 44 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 ; CHLFM = 21 |
| F21A1U | | 12/10/1998 | ND (< 2.5) | 95.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 102 ; CHLFM = 24.8 |
| F21A1U | | 12/13/1999 | ND (< 5) | 81.2 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| F21A1U | | 12/7/2000 | ND (< 2.5) | 150 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | CHLFM = 8.6 |
| F21A1U | | 6/20/2001 | ND (< 1.0) | 94 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 1.4 |
| F21A1U | Dup | 6/20/2001 | ND (< 1.0) | 90 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 2.3 |
| F21A1U | | 6/24/2003 | ND (< 1.0) | 100 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 5.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | CHLFM = 4.4 |
| F21A1U | Dup | 6/24/2003 | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 6.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLFM = 4.9 |
| F21A1U | | 6/21/2005 | ND (< 0.50) | 67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 7/5/2007 | ND (< 0.50) | 24 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/26/2008 | ND (< 0.50) | 70 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/11/2009 | ND (< 0.50) | 88 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.6 | 0.56 | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/9/2010 | ND (< 0.50) | 81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.6 | 0.53 | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/15/2011 | ND (< 0.50) | 77 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.1 | 0.66 | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/13/2012 | ND (< 0.50) | 74 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.1 | 0.65 | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/19/2013 | ND (< 0.50) | 79 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.1 | 0.82 | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | Dup | 6/19/2013 | ND (< 0.50) | 69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.6 | 0.60 | ND (< 0.50) | ND (< 0.50) | |
| F21A1U | | 6/11/2014 | ND (< 0.50) | 69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.7 | 0.81 | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F22A1U | | 12/7/1990 | 2 | 92 | 3 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2.2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F22A1U | | 4/17/1991 | ND (< 1) | 91 | 1.4 | ND (< 1) | - | ND (< 1) | ND (< 1) | 4.6 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F22A1U | Dup | 4/17/1991 | 0.2 | - | 1.4 | 0.8 | 2.7 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F22A1U | Dup | 4/17/1991 | 0.2 | 120 | 1.4 | 0.8 | 2.7 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F22A1U | | 7/25/1991 | ND (< 0.5) | 190 | 2.2 | 0.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 7.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F22A1U | Dup | 7/25/1991 | ND (< 0.5) | 210 | 2.2 | 0.9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 7.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F22A1U | | 10/3/1991 | ND (< 0.5) | 230 | 4.9 | 1.2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 9.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F22A1U | | 12/5/1991 | ND (< 5) | 320 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F22A1U | | 3/9/1992 | ND (< 0.5) | 220 | 3 | 1.3 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F22A1U | | 6/5/1992 | ND (< 0.5) | 350 | 2.3 | 0.8 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F22A1U | | 9/23/1992 | ND (< 1) | 520 | 4.4 | ND (< 1) | ND (< 5) | ND (< 1) | ND (< 1) | 6.8 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F22A1U | | 12/4/1992 | ND (< 5) | 430 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F22A1U | | 3/10/1993 | ND (< 1) | 420 | 2.4 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 5 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.2 |
| F22A1U | | 6/2/1993 | ND (< 0.5) | 110 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| F22A1U | | 9/8/1993 | ND (< 0.5) | 110 | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 6.3 |
| F22A1U | | 12/7/1993 | ND (< 5) | 130 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 18 |
| F22A1U | | 3/7/1994 | ND (< 0.5) | 67 | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 24 |
| F22A1U | | 6/13/1994 | ND (< 0.5) | 47 | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.6 ; CHLFM = 32 |
| F22A1U | | 9/2/1994 | ND (< 0.5) | 36 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 6 ; CHLFM = 47 ; DBCM = 0.8 |
| F22A1U | | 12/13/1994 | ND (< 5) | 32 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 75 |
| F22A1U | | 3/6/1995 | ND (< 0.5) | 29 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2 ; CHLFM = 45 |
| F22A1U | | 6/7/1995 | ND (< 0.5) | 26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.74 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.94 ; CHLFM = 50 |
| F22A1U | | 9/6/1995 | ND (< 2.5) | 26 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLFM = 64 ; MC = 5.8 |
| F22A1U | | 12/7/1995 | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 39 |
| F22A1U | | 3/6/1996 | ND (< 0.5) | 41 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 1 ; CHLFM = 28 |
| F22A1U | | 6/6/1996 | ND (< 0.5) | 32 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.98 ; CBMA = 113 ; CHLFM = 30 |
| F22A1U | | 9/11/1996 | ND (< 0.5) | 26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 33 |
| F22A1U | | 12/12/1996 | ND (< 5) | 19 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 51 |
| F22A1U | | 3/5/1997 | ND (< 0.5) | 23 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.74 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; CHLFM = 24 |
| F22A1U | Dup | 3/5/1997 | ND (< 0.5) | 22 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 23 |
| F22A1U | | 6/5/1997 | ND (< 0.5) | 33 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; CHLFM = 33 ; MC = 1.3 |
| F22A1U | | 9/11/1997 | ND (< 1) | 120 | 3.6 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 2.5 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 101 ; CHLFM = 28 |
| F22A1U | Dup | 9/11/1997 | ND (< 1) | 120 | 1.8 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 2.5 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 97 ; CHLFM = 28 |
| F22A1U | | 12/9/1997 | ND (< 0.5) | 120 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 ; CHLFM = 24 |
| F22A1U | | 12/11/1998 | ND (< 5) | 156 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 5.67 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 ; CHLFM = 14.7 |
| F22A1U | | 12/13/1999 | ND (< 10) | 191 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CHLFM = 36.3 |
| F22A1U | | 12/7/2000 | ND (< 2.5) | 180 | 3.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 8.6 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | CHLFM = 9.2 |
| F22A1U | | 6/20/2001 | ND (< 5.0) | 220 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 9.7 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F22A1U | | 6/25/2003 | ND (< 5.0) | 160 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F22A1U | | 6/21/2005 | ND (< 2.0) | 200 | 4.7 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 9.9 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| F22A1U | | 7/5/2007 | ND (< 5.0) | 280 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 12 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F22A1U | | 6/26/2008 | ND (< 2.0) | 240 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 8.7 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| F22A1U | | 6/11/2009 | ND (< 2.5) | 240 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 6.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F22A1U | | 6/9/2010 | ND (< 2.5) | 210 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 6.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F22A1U | | 6/15/2011 | ND (< 2.5) | 180 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F22A1U | | 6/13/2012 | ND (< 2.5) | 160 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F22A1U | | 6/18/2013 | ND (< 2.5) | 120 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F22A1U | | 6/11/2014 | ND (< 5.0) | 240 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 24 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F22A1U | Dup | 6/11/2014 | ND (< 0.50) | 230 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 27 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F23A | | 12/7/1990 | 0.2 | 0.5 | 20 | 22 | 10 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.8 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F23A | | 4/9/1991 | ND (< 0.5) | ND (< 0.5) | 11 | 16 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | 13 | 12 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 10/3/1991 | ND (< 0.5) | ND (< 0.5) | 15 | 13 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 12/4/1991 | ND (< 5) | ND (< 5) | ND (< 5) | 18 | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F23A | | 3/9/1992 | ND (< 0.5) | 2.3 | 8.5 | 15 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 6/3/1992 | ND (< 0.5) | 4.4 | 7.5 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 9/18/1992 | ND (< 0.5) | 0.9 | 5.2 | 6.4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 12/4/1992 | ND (< 5) | 15 | ND (< 5) | 9 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F23A | | 3/4/1993 | ND (< 0.5) | 8.4 | 8.5 | 14 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 6/2/1993 | ND (< 0.5) | 38 | 1.7 | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 9/7/1993 | ND (< 0.5) | 46 | 1.3 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.2 |
| F23A | | 12/2/1993 | ND (< 5) | 20 | ND (< 5) | 7.7 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F23A | | 3/8/1994 | ND (< 0.5) | 34 | 3.9 | 5.5 | - | ND (< 0.5) | ND (< 0.5) | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 6/13/1994 | ND (< 0.5) | 64 | 1.3 | 2.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 9/8/1994 | ND (< 0.5) | 91 | 0.95 | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 12/12/1994 | ND (< 5) | 19 | 5.2 | 12 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F23A | | 3/6/1995 | ND (< 0.5) | 22 | 2.9 | 5.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 6/7/1995 | ND (< 0.5) | 190 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 11/9/1995 | ND (< 0.5) | 59 | 2 | 4.3 | - | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 12/8/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F23A | | 3/6/1996 | ND (< 0.5) | 13 | 1.7 | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F23A | | 6/11/1996 | ND (< 2.5) | 110 | 2.6 | 6.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 115 |
| F23A | | 9/12/1996 | ND (< 1.2) | 110 | 2 | 4.4 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | 2.1 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 100 |
| F23A | | 12/12/1996 | ND (< 5) | 22 | ND (< 5) | 7.7 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F23A | | 3/6/1997 | ND (< 0.5) | 56 | 1.1 | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F23A | Dup | 3/6/1997 | ND (< 0.5) | 58 | 1.2 | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F23A | | 6/5/1997 | ND (< 0.5) | 140 | 1.3 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F23A | | 9/11/1997 | ND (< 0.5) | 62 | 2.1 | 3.4 | 0.76 | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 90 |
| F23A | | 12/4/1997 | ND (< 1) | 77 | 1.7 | 2.4 | ND (< 1) | ND (< 1) | ND (< 1) | 2.3 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 98 |
| F23A | | 6/2/1998 | ND (< 10) | 97 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 104 |
| F23A | | 12/11/1998 | ND (< 5) | 139 | 11.8 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 96.3 |
| F23A | Dup | 12/11/1998 | ND (< 2.5) | 122 | ND (< 2.5) | 2.51 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 2.67 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 90.3 |
| F23A | | 6/10/1999 | ND (< 5.00) | 97.4 | 6.59 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | 5.12 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| F23A | | 12/13/1999 | ND (< 0.5) | 17.8 | 30.4 | 10.8 | 13.7 | ND (< 0.5) | ND (< 0.5) | 26.6 | ND (< 0.5) | 2.32 | ND (< 0.5) | CHLFM = 1.7 |
| F23A | | 6/6/2000 | ND (< 1.0) | 97 | 6.9 | 1.6 | 1.5 | ND (< 1.0) | ND (< 1.0) | 4.9 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F23A | Dup | 6/6/2000 | ND (< 5.0) | 110 | 5.0 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F23A | | 12/7/2000 | ND (< 1.0) | 45 | 9.0 | 3.7 | 2.5 | ND (< 1.0) | ND (< 1.0) | 7.9 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F23A | | 6/20/2001 | ND (< 1.0) | 57 | 49 | 8.6 | 15 | ND (< 1.0) | ND (< 1.0) | 30 | ND (< 1.0) | 8.4 | ND (< 1.0) | |
| F23A | | 6/24/2003 | ND (< 0.50) | 43 | 14 | 2.4 | 3.1 | ND (< 0.50) | ND (< 0.50) | 5.7 | ND (< 0.50) | 3.6 | ND (< 0.50) | |
| F23A | | 6/23/2005 | ND (< 0.50) | 48 | 58 | 8.8 | 21 | ND (< 0.50) | ND (< 0.50) | 37 | ND (< 0.50) | 30 | ND (< 0.50) | MC = 5.3 |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F29A1U | | 12/17/1990 | 2 | 94 | 29 | 5.5 | 17 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2.8 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F29A1U | | 4/9/1991 | ND (< 0.5) | 160 | 32 | 9 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 50 | 5 | ND (< 0.5) | ND (< 0.5) | CHLFM = 4 |
| F29A1U | | 7/30/1991 | ND (< 0.5) | 67 | 11 | 1.3 | - | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F29A1U | | 12/10/1991 | ND (< 5) | 23 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | | 6/9/1992 | ND (< 0.5) | 16 | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F29A1U | | 12/15/1992 | ND (< 5) | 5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | | 6/2/1993 | ND (< 0.5) | 2.7 | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F29A1U | | 12/2/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | | 6/6/1994 | ND (< 0.5) | 5.2 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F29A1U | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | | 6/6/1995 | ND (< 0.5) | 13 | 4.3 | 1.1 | - | ND (< 0.5) | ND (< 0.5) | 12 | 0.56 | ND (< 0.5) | ND (< 0.5) | |
| F29A1U | | 12/7/1995 | ND (< 5) | 8.9 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 9.3 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | | 6/10/1996 | ND (< 0.5) | 7.1 | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 ; MC = 0.16 |
| F29A1U | Dup | 6/10/1996 | ND (< 0.5) | 6.7 | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | 0.57 | ND (< 0.5) | ND (< 0.5) | CBMA = 113 ; MC = 0.15 |
| F29A1U | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | Dup | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F29A1U | | 12/2/1997 | ND (< 0.5) | 4.3 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| F29A1U | | 12/8/1999 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F29A1U | | 6/21/2007 | ND (< 0.50) | 26 | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/26/2008 | ND (< 0.50) | 24 | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.52 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/11/2009 | ND (< 0.50) | 18 | 0.54 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/9/2010 | ND (< 0.50) | 17 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/16/2011 | ND (< 0.50) | 21 | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/13/2012 | ND (< 0.50) | 18 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | Dup | 6/13/2012 | ND (< 0.50) | 17 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/20/2013 | ND (< 0.50) | 25 | 0.53 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F29A1U | | 6/11/2014 | ND (< 0.50) | 30 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F30A1U | | 12/14/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; Xylenes = 0.9 |
| F30A1U | | 2/7/1991 | 0.2 | 40 | 3.1 | 0.4 | 3.1 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F30A1U | | 4/19/1991 | ND (< 1) | 50 | 5 | ND (< 1) | 1 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | |
| F30A1U | | 7/30/1991 | ND (< 0.5) | 50 | 4.6 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | Dup | 7/30/1991 | ND (< 0.5) | 52 | 4.7 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 11/5/1991 | ND (< 0.5) | 48 | 5.4 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 12/13/1991 | ND (< 5) | 55 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F30A1U | | 3/10/1992 | ND (< 0.5) | 44 | 3.6 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 6/11/1992 | ND (< 0.5) | 48 | 3.3 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 9/22/1992 | ND (< 0.5) | 37 | 2.2 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 12/9/1992 | ND (< 5) | 46 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 29 |
| F30A1U | | 3/4/1993 | ND (< 0.5) | 24 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 6/15/1993 | ND (< 0.5) | 27 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | Dup | 6/15/1993 | ND (< 0.5) | 27 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 9/14/1993 | ND (< 0.5) | 25 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 12/13/1993 | ND (< 5) | 29 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F30A1U | | 3/9/1994 | ND (< 0.5) | 12 | 0.72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 6/7/1994 | ND (< 0.5) | 23 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 12/9/1994 | ND (< 5) | 16 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F30A1U | | 3/6/1995 | ND (< 0.5) | 9.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F30A1U | | 6/6/1995 | ND (< 0.5) | 3.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 9/6/1995 | ND (< 0.5) | 6.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 12/6/1995 | ND (< 5) | 7.6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F30A1U | | 3/5/1996 | ND (< 0.5) | 8.7 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F30A1U | | 6/6/1996 | ND (< 0.5) | 5.2 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F30A1U | | 9/10/1996 | ND (< 0.5) | 6.1 | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F30A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F30A1U | | 6/16/2011 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F31A | | 12/14/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; Xylenes = 0.9 |
| F31A | | 2/7/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F31A | | 4/19/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 7/23/1991 | ND (< 0.5) | 42 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 11/5/1991 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 12/13/1991 | ND (< 5) | 6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F31A | | 3/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| F31A | | 6/11/1992 | ND (< 0.5) | 27 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 9/22/1992 | ND (< 0.5) | 25 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 12/9/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F31A | | 3/4/1993 | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 9/14/1993 | ND (< 0.5) | 0.83 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | Dup | 9/14/1993 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F31A | | 3/9/1994 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 6/7/1994 | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F31A | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F31A | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 0.72 |
| | | | | | | | | | | | | | | |
| F32A | | 12/12/1990 | 2 | 14 | 20 | 5 | 6.5 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 75 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 1.2 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F32A | | 4/9/1991 | ND (< 0.5) | 53 | 43 | 10 | - | ND (< 0.5) | ND (< 0.5) | 61 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F32A | Dup | 4/9/1991 | ND (< 0.5) | 83 | 60 | 13 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F32A | | 7/30/1991 | ND (< 0.5) | 93 | 69 | 13 | ND (< 1) | 0.7 | ND (< 0.5) | 99 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F32A | | 11/12/1991 | ND (< 0.5) | 130 | 100 | 12 | ND (< 2.5) | 0.5 | ND (< 0.5) | 110 | ND (< 0.5) | 0.6 | ND (< 0.5) | CHLFM = 1.5 |
| F32A | | 12/13/1991 | ND (< 5) | 130 | 100 | 15 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F32A | | 3/11/1992 | ND (< 0.5) | 86 | 74 | 9.8 | ND (< 2.5) | 0.6 | ND (< 0.5) | 84 | ND (< 0.5) | 1.1 | ND (< 0.5) | CHLFM = 3.7 |
| F32A | | 6/3/1992 | ND (< 0.5) | 120 | 84 | 10 | ND (< 2.5) | 1 | ND (< 0.5) | 90 | ND (< 0.5) | 1.1 | ND (< 0.5) | CHLFM = 6.1 |
| F32A | | 9/15/1992 | ND (< 0.5) | 160 | 99 | 8.1 | ND (< 2.5) | 1 | ND (< 0.5) | 85 | ND (< 0.5) | 1.8 | ND (< 0.5) | BDCHLMA = 1.6 ; CHLFM = 7.8 |
| F32A | | 12/11/1992 | ND (< 5) | 170 | 88 | 8.1 | - | ND (< 5) | - | 95 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 6.9 |
| F32A | | 3/5/1993 | ND (< 0.5) | 66 | 55 | 7.6 | ND (< 2.5) | 0.6 | ND (< 0.5) | 50 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5.3 |
| F32A | | 6/11/1993 | ND (< 0.5) | 80 | 40 | 5.6 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3.8 |
| F32A | | 9/10/1993 | ND (< 0.5) | 58 | 31 | 6.1 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 40 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 4 |
| F32A | | 12/8/1993 | ND (< 5) | 59 | 24 | 5.5 | - | ND (< 5) | - | 42 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F32A | | 3/4/1994 | ND (< 0.5) | 68 | 36 | 7.6 | - | ND (< 0.5) | ND (< 0.5) | 47 | ND (< 0.5) | 0.8 | ND (< 0.5) | CHLFM = 4.9 |
| F32A | | 6/6/1994 | ND (< 0.5) | 97 | 42 | 8 | - | 0.52 | ND (< 0.5) | 57 | ND (< 0.5) | 0.92 | ND (< 0.5) | CHLFM = 4.7 |
| F32A | | 12/6/1994 | ND (< 5) | 170 | 40 | 7.3 | - | ND (< 5) | - | 54 | ND (< 5) | ND (< 5) | ND (< 10) | Benzene = 12 ; Ethylbenzene = 6.5 ; Toluene = 51 ; Xylenes = 26 |
| F32A | | 4/10/1995 | - | - | - | - | - | - | ND (< 0.5) | - | - | - | - | |
| F32A | | 6/8/1995 | ND (< 0.5) | 130 | 31 | 5 | - | ND (< 0.5) | ND (< 0.5) | 38 | ND (< 0.5) | 1 | ND (< 0.5) | CHLFM = 1.7 |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F32A | | 12/7/1995 | ND (< 5) | 130 | 25 | 5.6 | - | ND (< 5) | - | 39 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F32A | | 6/11/1996 | ND (< 2.5) | 77 | 14 | 2.6 | 3.7 | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 113 |
| F32A | | 12/12/1996 | ND (< 5) | 51 | 8.1 | ND (< 5) | ND (< 5) | ND (< 5) | - | 16 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F32A | | 12/2/1997 | ND (< 0.5) | 37 | 4.7 | 2 | 1.5 | ND (< 0.5) | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F32A | | 12/8/1998 | ND (< 0.5) | 23.2 | 1.61 | 1.15 | 0.939 | ND (< 0.5) | ND (< 0.5) | 6.97 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98.7 |
| F32A | | 12/8/1999 | ND (< 0.5) | 16 | ND (< 0.5) | 0.501 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.46 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F32A | | 12/7/2000 | ND (< 2.5) | 130 | 5.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.9 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | CHLFM = 4.7 |
| F32A | Dup | 12/7/2000 | ND (< 2.5) | 120 | 4.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.1 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | CHLFM = 4.8 |
| F32A | | 6/21/2001 | ND (< 0.50) | 55 | 2.4 | 1.6 | 0.54 | ND (< 0.50) | ND (< 0.50) | 6.9 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 1.4 |
| F32A | | 6/27/2003 | ND (< 0.50) | 28 | 0.83 | 0.90 | 0.52 | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F32A | | 6/21/2005 | ND (< 0.50) | 7.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F32A | | 6/14/2007 | ND (< 1.0) | 130 | 4.8 | 1.2 | 2.0 | ND (< 1.0) | ND (< 1.0) | 7.9 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F32A | | 6/15/2009 | ND (< 0.50) | 33 | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F32A | | 6/15/2011 | ND (< 0.50) | 7.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.83 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F32A | | 8/26/2011 | ND (< 0.50) | 83 | 3.4 | 1.8 | 2.7 | ND (< 0.50) | ND (< 0.50) | 6.9 | ND (< 0.50) | 0.73 | ND (< 0.50) | |
| F32A | | 6/19/2013 | ND (< 0.50) | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F33B | | 12/12/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F33B | | 4/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 7/30/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 10/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 12/13/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | | 3/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 6/3/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 9/15/1992 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 12/14/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | Dup | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F33B | | 12/6/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Toluene = 7.3 ; Xylenes = 18 |
| F33B | | 2/1/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F33B | | 12/2/1997 | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F33B | | 12/8/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F33B | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F33B | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F33B | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F33B | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F33B | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F33B | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F33B | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F34A | | 12/17/1990 | 0.2 | 16 | 0.5 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.9 |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F34A | Dup | 12/17/1990 | 0.2 | 19 | 0.6 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.9 |
| F34A | | 4/9/1991 | ND (< 0.5) | 9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 7/31/1991 | ND (< 0.5) | 29 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 11/12/1991 | ND (< 0.5) | 120 | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 12/13/1991 | ND (< 5) | 73 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | | 3/6/1992 | ND (< 0.5) | 71 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 6/5/1992 | ND (< 0.5) | 59 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | Dup | 6/5/1992 | ND (< 0.5) | 67 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 9/15/1992 | ND (< 0.5) | 54 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 12/8/1992 | ND (< 5) | 130 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | | 3/4/1993 | ND (< 0.5) | 70 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 6/14/1993 | 4.2 | 110 | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 9/10/1993 | ND (< 0.5) | 110 | 2.5 | 0.55 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 12/2/1993 | ND (< 5) | 24 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | | 3/3/1994 | ND (< 0.5) | 90 | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 6/9/1994 | ND (< 0.5) | 70 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 9/6/1994 | ND (< 0.5) | 58 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 12/8/1994 | ND (< 5) | 81 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | Dup | 12/8/1994 | ND (< 5) | 78 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | | 3/6/1995 | ND (< 0.5) | 59 | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 6/8/1995 | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | Dup | 6/8/1995 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 9/6/1995 | ND (< 0.5) | 22 | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 12/7/1995 | ND (< 5) | 35 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | | 3/5/1996 | ND (< 0.5) | 6.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F34A | | 6/5/1996 | ND (< 0.5) | 7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F34A | | 9/11/1996 | ND (< 0.5) | 20 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F34A | | 12/11/1996 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | Dup | 12/11/1996 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F34A | | 6/4/1997 | ND (< 0.5) | 6.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| F34A | | 12/2/1997 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 |
| F34A | Dup | 12/2/1997 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F34A | | 12/8/1998 | ND (< 0.5) | 7.64 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99.3 |
| F34A | | 12/8/1999 | ND (< 1.25) | 62.9 | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 2.5) | ND (< 1.25) | |
| F34A | | 12/7/2000 | ND (< 1.0) | 27 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F34A | | 6/21/2001 | ND (< 1.0) | 56 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F34A | | 6/27/2002 | ND (< 0.50) | 10 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/27/2003 | ND (< 0.50) | 16 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/23/2004 | ND (< 0.50) | 48 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | Dup | 6/23/2004 | ND (< 0.50) | 50 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/21/2005 | ND (< 0.50) | 58 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/27/2006 | ND (< 0.50) | 47 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/18/2007 | ND (< 0.50) | 51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.54 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/11/2008 | ND (< 0.50) | 47 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.56 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/15/2009 | ND (< 0.50) | 41 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/15/2010 | ND (< 0.50) | 49 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/15/2011 | ND (< 0.50) | 49 | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/17/2013 | ND (< 0.50) | 41 | ND (< 0.50) | 0.95 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | | 6/10/2014 | ND (< 0.50) | 50 | ND (< 0.50) | 0.92 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F34A | Dup | 6/10/2014 | ND (< 0.50) | 39 | ND (< 0.50) | 0.69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F35B | | 12/17/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; Xylenes = 0.9 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F35B | | 2/8/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F35B | | 4/9/1991 | ND (< 0.5) | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | Dup | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 10/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 12/13/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F35B | | 3/6/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 6/5/1992 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 9/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 12/8/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 17 |
| F35B | | 3/4/1993 | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 9/10/1993 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 12/2/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F35B | | 3/3/1994 | ND (< 0.5) | 0.69 | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 6/9/1994 | ND (< 0.5) | 0.97 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | Dup | 6/9/1994 | ND (< 0.5) | 1 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F35B | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F35B | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F35B | | 6/4/1996 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F35B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F36A | | 12/14/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; Xylenes = 0.9 |
| F36A | | 2/7/1991 | 0.8 | 5.9 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F36A | | 4/17/1991 | ND (< 0.5) | 13 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | Dup | 4/17/1991 | ND (< 0.5) | 13 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 7/29/1991 | ND (< 0.5) | 17 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 10/14/1991 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F36A | | 12/11/1991 | ND (< 5) | 19 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | | 3/6/1992 | ND (< 0.5) | 17 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F36A | | 6/10/1992 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | Dup | 6/10/1992 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 10/13/1992 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 12/4/1992 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | | 3/5/1993 | ND (< 0.5) | 17 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 6/10/1993 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 9/9/1993 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 12/9/1993 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | | 3/3/1994 | ND (< 0.5) | 17 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 6/8/1994 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 9/6/1994 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 12/5/1994 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | Dup | 12/5/1994 | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | | 3/2/1995 | ND (< 0.5) | 9.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F36A | | 6/7/1995 | ND (< 0.5) | 17 | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.58 |
| F36A | | 9/6/1995 | ND (< 0.5) | 21 | ND (< 0.5) | 1.6 | - | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F36A | | 12/7/1995 | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | | 3/5/1996 | ND (< 0.5) | 17 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.59 |
| F36A | | 6/5/1996 | ND (< 0.5) | 11 | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 0.59 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F36A | | 9/11/1996 | ND (< 0.5) | 15 | 0.91 | 2.6 | 1.5 | ND (< 0.5) | ND (< 0.5) | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 0.77 |
| F36A | | 12/11/1996 | ND (< 5) | 10 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F36A | | 3/5/1997 | ND (< 0.5) | 11 | 0.54 | 1.9 | 0.58 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 89 |
| F36A | | 6/4/1997 | ND (< 0.5) | 14 | 0.72 | 2.5 | 0.96 | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| F36A | | 9/10/1997 | ND (< 0.5) | 13 | 0.7 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F36A | | 12/5/1997 | ND (< 0.5) | 11 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| F36A | | 12/8/1998 | ND (< 0.5) | 7.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F36A | | 12/8/1999 | ND (< 0.5) | 5.44 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F36A | | 12/7/2000 | ND (< 0.50) | 7.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F36A | | 6/20/2001 | ND (< 0.50) | 6.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F36A | | 6/24/2003 | ND (< 0.50) | 4.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 7/23/2003 | ND (< 0.50) | 5.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/21/2005 | ND (< 0.50) | 6.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/20/2007 | ND (< 0.50) | 5.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/16/2011 | ND (< 0.50) | 5.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/20/2013 | ND (< 0.50) | 7.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F36A | | 6/11/2014 | ND (< 0.50) | 7.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F37A | | 12/11/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F37A | Dup | 12/11/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | 5 | 2 | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 5 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 2 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F37A | | 4/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 8/1/1991 | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 10/31/1991 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 12/11/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F37A | | 3/11/1992 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 9/18/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 12/8/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F37A | | 6/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F37A | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F37A | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F37A | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F37A | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F37A | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F37A | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F37A | | 12/8/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| F38A | | 12/17/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; Xylenes = 0.9 |
| F38A | | 2/6/1991 | 0.2 | 19 | 0.7 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F38A | | 4/22/1991 | ND (< 0.5) | 81 | 6 | 2 | ND (< 3) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 7/23/1991 | ND (< 0.5) | 83 | 2.1 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 11/4/1991 | ND (< 0.5) | 7.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 12/5/1991 | ND (< 5) | 67 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | | 3/12/1992 | ND (< 0.5) | 5.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 6/12/1992 | ND (< 0.5) | 33 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | Dup | 6/12/1992 | ND (< 0.5) | 31 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 10/12/1992 | ND (< 0.5) | 59 | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 12/9/1992 | ND (< 5) | 74 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | | 3/5/1993 | ND (< 0.5) | 58 | 2 | 0.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 6/2/1993 | ND (< 0.5) | 23 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | |
| F38A | | 9/10/1993 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 12/3/1993 | ND (< 5) | 9.3 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | Dup | 12/3/1993 | ND (< 5) | 9.1 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | | 3/8/1994 | ND (< 0.5) | 22 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 6/6/1994 | ND (< 0.5) | 8.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 12/7/1994 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | | 6/6/1995 | ND (< 0.5) | 56 | 0.55 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F38A | | 12/8/1995 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | | 6/6/1996 | ND (< 2.5) | 160 | 4.9 | ND (< 2.5) | 3.4 | ND (< 2.5) | ND (< 2.5) | 2.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 ; CHLFM = 6 ; MC = 2.8 |
| F38A | | 12/11/1996 | ND (< 5) | 31 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F38A | | 6/5/1997 | ND (< 2.5) | 36 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 105 |
| F38A | Dup | 6/5/1997 | ND (< 2.5) | 33 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 105 |
| F38A | | 12/8/1997 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F38A | | 6/4/1998 | ND (< 0.5) | 24 | ND (< 0.5) | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F38A | | 12/10/1998 | ND (< 0.5) | 15.8 | ND (< 0.5) | ND (< 0.5) | 0.644 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F38A | | 6/10/1999 | ND (< 0.500) | 6.02 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F38A | | 12/8/1999 | ND (< 0.5) | 2.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F38A | | 6/8/2000 | ND (< 0.50) | 19 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F38A | | 12/7/2000 | ND (< 0.50) | 32 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F38A | | 6/20/2001 | ND (< 0.50) | 5.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F38A | | 6/26/2002 | ND (< 0.50) | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/24/2003 | ND (< 0.50) | 23 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/23/2004 | ND (< 0.50) | 34 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/21/2005 | ND (< 0.50) | 0.65 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/27/2006 | ND (< 0.50) | 0.68 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/20/2007 | ND (< 0.50) | 4.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/20/2007 | ND (< 0.50) | 6.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | Dup | 6/20/2007 | ND (< 0.50) | 4.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/11/2008 | ND (< 0.50) | 0.52 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | Dup | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/16/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/13/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/17/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F38A | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F39A | | 12/14/1990 | 2 | 82 | 32 | 4 | 3.5 | 3 | 10 | - | - | 3.8 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 3.6 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F39A | | 4/9/1991 | ND (< 0.5) | 40 | 8 | 2 | - | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 7/30/1991 | ND (< 0.5) | 54 | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 11/4/1991 | ND (< 0.5) | 12 | 2.6 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | Dup | 11/4/1991 | ND (< 0.5) | 11 | 2.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F39A | | 12/5/1991 | ND (< 5) | 220 | 74 | 8.9 | ND (< 10) | ND (< 5) | - | - | ND (< 5) | 8.3 | ND (< 10) | |
| F39A | | 12/16/1991 | ND (< 5) | 180 | 63 | 7.9 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F39A | | 3/4/1992 | ND (< 0.5) | 10 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 6/3/1992 | ND (< 0.5) | 180 | 41 | 9.5 | - | 0.5 | ND (< 0.5) | 58 | 0.6 | 3.7 | ND (< 0.5) | CHLFM = 2.8 |
| F39A | | 9/22/1992 | ND (< 0.5) | 37 | 9.8 | 2.5 | - | ND (< 0.5) | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F39A | | 12/4/1992 | ND (< 5) | 10 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F39A | | 3/10/1993 | ND (< 0.5) | 9 | 3 | 0.5 | - | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | Dup | 3/10/1993 | ND (< 0.5) | 9.3 | 3.1 | 0.5 | - | ND (< 0.5) | ND (< 0.5) | 2.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 6/2/1993 | ND (< 0.5) | 3.8 | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 9/8/1993 | ND (< 0.5) | 8 | 3.1 | 0.64 | - | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F39A | | 3/7/1994 | ND (< 0.5) | 10 | 2.8 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 6/6/1994 | ND (< 0.5) | 22 | 4 | 0.69 | - | ND (< 0.5) | ND (< 0.5) | 4.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 9/6/1994 | ND (< 0.5) | 2.8 | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 12/6/1994 | ND (< 5) | 66 | 8.5 | ND (< 5) | ND (< 5) | ND (< 5) | - | 12 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F39A | | 3/2/1995 | ND (< 0.5) | 3.8 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 6/7/1995 | ND (< 0.5) | 5.6 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 9/5/1995 | ND (< 0.5) | 48 | 5.2 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 6.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.55 |
| F39A | Dup | 9/5/1995 | ND (< 0.5) | 47 | 5.1 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 6.52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.52 |
| F39A | | 12/6/1995 | ND (< 5) | 22 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F39A | | 4/4/1996 | ND (< 0.5) | 5.7 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F39A | | 6/5/1996 | ND (< 1) | 75 | 8.4 | 1.3 | ND (< 1) | ND (< 1) | ND (< 1) | 7.7 | ND (< 1) | 1 | ND (< 1) | CBMA = 103 ; CHLFM = 1.1 |
| F39A | Dup | 6/5/1996 | ND (< 2.5) | 92 | 11 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 8.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 |
| F39A | | 9/11/1996 | ND (< 2.5) | 58 | 2.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 104 ; CHLFM = 3.4 |
| F39A | Dup | 9/11/1996 | ND (< 2.5) | 56 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 5.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 102 ; CHLFM = 2.8 |
| F39A | | 12/11/1996 | ND (< 5) | 28 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F40A | | 12/11/1990 | 2 | 35 | 6.3 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F40A | | 4/9/1991 | ND (< 0.5) | 790 | 15 | ND (< 0.5) | ND (< 10) | ND (< 0.5) | ND (< 0.5) | 9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 7/29/1991 | ND (< 0.5) | 13 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 11/12/1991 | ND (< 0.5) | 200 | 5.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | Dup | 11/12/1991 | ND (< 0.5) | 200 | 6.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 12/13/1991 | ND (< 5) | 19 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F40A | | 3/10/1992 | ND (< 0.5) | 22 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 6/11/1992 | ND (< 0.5) | 5.2 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 9/17/1992 | ND (< 5) | 870 | 17 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F40A | | 12/9/1992 | ND (< 5) | 960 | 17 | ND (< 5) | ND (< 25) | ND (< 5) | - | 21 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F40A | | 3/5/1993 | ND (< 0.5) | 36 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 6/10/1993 | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 9/10/1993 | ND (< 1) | 410 | 9.3 | ND (< 1) | ND (< 5) | ND (< 1) | ND (< 1) | 16 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F40A | Dup | 9/10/1993 | ND (< 1) | 410 | 8.2 | ND (< 1) | ND (< 5) | ND (< 1) | ND (< 1) | 15 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F40A | | 12/3/1993 | ND (< 5) | 70 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F40A | | 3/9/1994 | ND (< 0.5) | 24 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 6/9/1994 | ND (< 0.5) | 45 | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.78 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | Dup | 6/9/1994 | ND (< 0.5) | 47 | 0.64 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 9/7/1994 | ND (< 0.5) | 20 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 12/7/1994 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F40A | Dup | 12/7/1994 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F40A | | 3/7/1995 | ND (< 0.5) | 48 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | Dup | 3/7/1995 | ND (< 0.5) | 45 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.55 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 6/7/1995 | ND (< 0.5) | 56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F40A | | 9/6/1995 | ND (< 0.5) | 60 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 4.1 | 0.64 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.51 |
| F40A | | 12/8/1995 | ND (< 5) | 43 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F40A | | 3/6/1996 | ND (< 0.5) | 52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.85 |
| F40A | | 6/5/1996 | ND (< 2.5) | 88 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 105 ; CHLFM = 12 |
| F40A | | 9/11/1996 | ND (< 2.5) | 67 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 2.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 ; CHLFM = 11 |
| F40A | | 12/12/1996 | ND (< 5) | 44 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 7.2 |
| F40A | | 6/4/1997 | ND (< 1) | 12 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 1.8 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 93 ; CHLFM = 3.7 ; MC = 3.2 |
| F40A | | 12/3/1997 | ND (< 0.5) | 24 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 ; CHLFM = 5.6 |
| F40A | | 12/8/1998 | ND (< 0.5) | 29 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 ; CHLFM = 4.58 |
| F40A | | 12/8/1999 | ND (< 1.25) | 53.7 | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | 1.82 | ND (< 1.25) | ND (< 2.5) | ND (< 1.25) | CHLFM = 7.05 |
| F40A | | 12/7/2000 | ND (< 0.50) | 5.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F40A | | 6/20/2001 | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F40A | | 6/27/2002 | ND (< 0.50) | 5.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/24/2003 | ND (< 0.50) | 13 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 9/1/2004 | ND (< 0.50) | 29 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.86 |
| F40A | | 9/1/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/29/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | Dup | 6/29/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/30/2006 | 7.9 | 8.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/20/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 9/13/2007 | ND (< 0.50) | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/11/2008 | ND (< 0.50) | 7.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/8/2010 | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/16/2011 | ND (< 0.50) | 21 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.58 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | Dup | 6/16/2011 | ND (< 0.50) | 21 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.70 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/13/2012 | ND (< 0.50) | 45 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/20/2013 | ND (< 0.50) | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F40A | | 6/11/2014 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F41A1 | | 12/14/1992 | ND (< 5) | 7.9 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 34 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F41A1 | | 1/17/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F41A1 | | 6/16/2011 | ND (< 0.50) | 0.72 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F41A1 | | 6/13/2012 | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F41A1 | | 6/19/2013 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F41A1 | | 6/11/2014 | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F42A1 | | 12/10/1990 | 2 | 850 | 760 | 24 | 54 | 3.6 | 0.5 | - | - | 460 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 75 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F42A1 | Dup | 12/10/1990 | 2 | 870 | 800 | 4 | 65 | 3 | 0.5 | - | - | 600 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 75 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F42A1 | | 4/9/1991 | ND (< 5) | 1,300 | 740 | 24 | ND (< 5) | ND (< 5) | ND (< 3) | 300 | ND (< 5) | 780 | ND (< 5) | |
| F42A1 | | 7/25/1991 | ND (< 5) | 1,100 | 680 | 29 | ND (< 5) | ND (< 5) | ND (< 5) | 370 | ND (< 5) | 240 | ND (< 5) | |
| F42A1 | | 10/8/1991 | ND (< 25) | 1,100 | 640 | ND (< 25) | - | ND (< 25) | ND (< 25) | 310 | ND (< 25) | 320 | ND (< 25) | |
| F42A1 | | 12/10/1991 | ND (< 5) | 1,400 | 670 | 30 | ND (< 50) | ND (< 5) | - | - | ND (< 5) | 560 | ND (< 10) | |
| F42A1 | | 3/11/1992 | ND (< 0.5) | 210 | 92 | 7.1 | ND (< 2.5) | 1 | ND (< 0.5) | 100 | ND (< 0.5) | 39 | ND (< 0.5) | |
| F42A1 | | 6/10/1992 | ND (< 2.5) | 1,200 | 690 | 20 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 340 | ND (< 2.5) | 480 | ND (< 2.5) | |
| F42A1 | | 9/14/1992 | ND (< 5) | 1,300 | 670 | 30 | ND (< 25) | ND (< 5) | ND (< 5) | 400 | ND (< 5) | 580 | ND (< 5) | |
| F42A1 | | 12/11/1992 | ND (< 5) | 1,100 | 470 | 32 | ND (< 50) | ND (< 5) | - | 420 | ND (< 5) | 260 | ND (< 10) | |
| F42A1 | | 3/9/1993 | ND (< 5) | 1,200 | 720 | 35 | ND (< 25) | ND (< 5) | ND (< 5) | 350 | ND (< 5) | 370 | ND (< 5) | |
| F42A1 | | 6/8/1993 | ND (< 2.5) | 750 | 300 | 14 | ND (< 25) | ND (< 2.5) | ND (< 2.5) | 240 | ND (< 2.5) | 370 | ND (< 2.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F42A1 | | 9/14/1993 | ND (< 5) | 680 | 360 | 13 | ND (< 25) | ND (< 5) | ND (< 5) | 180 | ND (< 5) | 390 | ND (< 5) | |
| F42A1 | | 12/9/1993 | ND (< 5) | 610 | 220 | 17 | - | ND (< 5) | - | 190 | ND (< 5) | 140 | ND (< 10) | |
| F42A1 | | 3/7/1994 | ND (< 2.5) | 450 | 300 | 16 | - | ND (< 2.5) | ND (< 2.5) | 170 | 12 | 150 | ND (< 2.5) | CHLFM = 4.6 |
| F42A1 | | 6/6/1994 | 3.4 | 560 | 200 | 9.4 | - | ND (< 2.5) | ND (< 2.5) | 130 | ND (< 2.5) | 280 | ND (< 2.5) | CHLFM = 7.2 |
| F42A1 | | 9/2/1994 | 2.5 | 440 | 170 | 8.1 | - | ND (< 1) | ND (< 1) | 97 | ND (< 1) | 270 | ND (< 1) | CHLFM = 6.2 |
| F42A1 | Dup | 9/2/1994 | 2.4 | 420 | 160 | 7.8 | - | ND (< 1) | ND (< 1) | 94 | ND (< 1) | 250 | ND (< 1) | CHLFM = 5.9 ; Freon 11 = 1.1 |
| F42A1 | | 12/9/1994 | ND (< 10) | 300 | 110 | ND (< 10) | - | ND (< 10) | - | 73 | ND (< 10) | 200 | ND (< 20) | |
| F42A1 | | 3/3/1995 | 1 | 250 | 61 | 5.1 | - | ND (< 1) | ND (< 1) | 60 | ND (< 1) | 24 | ND (< 1) | CHLFM = 4.6 |
| F42A1 | | 6/8/1995 | 3 | 260 | 76 | 4.4 | - | ND (< 2) | ND (< 2) | 50 | ND (< 2) | 140 | ND (< 2) | CHLFM = 5.5 ; MC = 11 |
| F42A1 | | 9/7/1995 | ND (< 5) | 270 | 78 | 7.1 | - | ND (< 5) | ND (< 5) | 70 | ND (< 5) | 110 | ND (< 5) | CHLFM = 8 |
| F42A1 | | 12/8/1995 | ND (< 5) | 150 | 47 | 5.2 | - | ND (< 5) | - | 41 | ND (< 5) | 75 | ND (< 10) | |
| F42A1 | | 3/7/1996 | ND (< 5) | 230 | 82 | 9.8 | 38 | ND (< 5) | ND (< 5) | 75 | ND (< 5) | 90 | ND (< 5) | CHLFM = 6.4 |
| F42A1 | | 6/11/1996 | ND (< 2.5) | 120 | 48 | 8.2 | 24 | ND (< 2.5) | ND (< 2.5) | 61 | ND (< 2.5) | 39 | ND (< 2.5) | CBMA = 103 ; CHLFM = 4 |
| F42A1 | | 9/13/1996 | 3.8 | 160 | 60 | 11 | 42 | 1.9 | ND (< 1.2) | 74 | ND (< 1.2) | 54 | ND (< 1.2) | CBMA = 107 ; CHLFM = 5.1 ; Freon 11 = 2.6 ; MC = 1.8 |
| F42A1 | | 12/13/1996 | ND (< 5) | 160 | 64 | 11 | 36 | ND (< 5) | - | 96 | ND (< 5) | 81 | ND (< 10) | |
| F42A1 | | 3/6/1997 | ND (< 5) | 190 | 60 | 10 | 50 | ND (< 5) | ND (< 5) | 83 | ND (< 5) | 48 | ND (< 5) | CBMA = 114 |
| F42A1 | | 6/9/1997 | 5.9 | 310 | 95 | 21 | 33 | ND (< 5) | ND (< 5) | 110 | ND (< 5) | 130 | ND (< 5) | CBMA = 104 ; CHLFM = 7 |
| F42A1 | | 9/12/1997 | ND (< 5) | 230 | 59 | 16 | 37 | ND (< 5) | ND (< 5) | 87 | ND (< 5) | 87 | ND (< 5) | CBMA = 101 |
| F42A1 | | 12/8/1997 | ND (< 5) | 230 | 52 | 20 | 36 | ND (< 5) | ND (< 5) | 90 | ND (< 5) | 120 | ND (< 5) | CBMA = 99 |
| F42A1 | Dup | 12/8/1997 | ND (< 5) | 240 | 52 | 19 | 17 | ND (< 5) | ND (< 5) | 90 | ND (< 5) | 120 | ND (< 5) | CBMA = 104 |
| F42A1 | | 6/2/1998 | ND (< 5) | 140 | 28 | 6.5 | 12 | ND (< 5) | ND (< 5) | 62 | ND (< 5) | 17 | ND (< 5) | CBMA = 112 |
| F42A1 | | 12/10/1998 | ND (< 5) | 158 | 38 | 7.06 | 21.6 | ND (< 5) | ND (< 5) | 63.7 | ND (< 5) | 46.1 | ND (< 5) | CBMA = 109 |
| F42A1 | | 6/10/1999 | ND (< 12.5) | 160 | 34.2 | ND (< 12.5) | 20.4 | ND (< 12.5) | ND (< 12.5) | 56.1 | ND (< 12.5) | 44.1 | ND (< 12.5) | |
| F42A1 | | 12/9/1999 | ND (< 5) | 180 | 24.2 | 14.9 | 29.4 | ND (< 5) | ND (< 5) | 75.9 | ND (< 5) | 43.1 | ND (< 5) | |
| F42A1 | Dup | 12/9/1999 | ND (< 4.17) | 146 | 38.9 | 13 | 20.6 | ND (< 4.17) | ND (< 4.17) | 62 | ND (< 4.17) | 37.2 | ND (< 4.17) | |
| F42A1 | | 6/6/2000 | ND (< 2.5) | 170 | 200 | 25 | 45 | ND (< 2.5) | ND (< 2.5) | 87 | ND (< 2.5) | 72 | ND (< 2.5) | |
| F42A1 | | 12/8/2000 | ND (< 25) | 200 | 450 | 40 | 56 | ND (< 25) | ND (< 25) | 100 | ND (< 25) | ND (< 100) | ND (< 25) | |
| F42A1 | | 6/19/2001 | ND (< 10) | 240 | 640 | 68 | 80 | ND (< 10) | ND (< 10) | 140 | ND (< 10) | 92 | ND (< 10) | |
| F42A1 | | 6/26/2003 | ND (< 10) | 290 | 370 | 15 | 50 | ND (< 10) | ND (< 10) | 77 | ND (< 10) | 200 | ND (< 10) | |
| F42A1 | | 6/22/2005 | ND (< 25) | 980 | 2,400 | 130 | 320 | 130 | ND (< 25) | 520 | ND (< 25) | 750 | ND (< 25) | |
| F42A1 | | 6/13/2007 | ND (< 25) | 2,600 | 1,400 | 40 | 150 | ND (< 25) | ND (< 25) | 240 | ND (< 25) | 1,800 | ND (< 25) | |
| F42A1 | | 6/27/2008 | ND (< 25) | 2,600 | 1,100 | 49 | 150 | ND (< 25) | ND (< 25) | 470 | ND (< 25) | 1,100 | ND (< 25) | |
| F42A1 | | 12/10/2008 | ND (< 20) | 2,200 | 1,500 | 41 | 180 | ND (< 20) | ND (< 20) | 420 | ND (< 20) | 1,200 | ND (< 20) | |
| F42A1 | | 6/10/2009 | 27 | 2,400 | 2,100 | ND (< 25) | 180 | ND (< 25) | ND (< 25) | 260 | ND (< 25) | 1,700 | ND (< 25) | |
| F42A1 | | 6/9/2010 | ND (< 25) | 1,300 | 670 | ND (< 25) | 110 | ND (< 25) | ND (< 25) | 93 | ND (< 25) | 750 | ND (< 25) | |
| F42A1 | | 6/15/2011 | 6.8 | 790 | 340 | 9.2 | 58 | ND (< 5.0) | ND (< 5.0) | 74 | ND (< 5.0) | 530 | ND (< 5.0) | |
| F42A1 | | 8/26/2011 | 6.6 | 690 | 280 | 8.9 | 59 | ND (< 5.0) | ND (< 5.0) | 73 | ND (< 5.0) | 490 | ND (< 5.0) | |
| F42A1 | | 9/29/2011 | 6.3 | 670 | 260 | 9.4 | 55 | ND (< 5.0) | ND (< 5.0) | 80 | ND (< 5.0) | 430 | ND (< 5.0) | |
| F42A1 | | 10/17/2011 | 6.1 | 750 | 300 | 11 | 63 | ND (< 5.0) | ND (< 5.0) | 94 | ND (< 5.0) | 420 | ND (< 5.0) | |
| F42A1 | | 3/5/2012 | 8.2 | 610 | 170 | 8.2 | 55 | ND (< 5.0) | ND (< 5.0) | 66 | ND (< 5.0) | 390 | ND (< 5.0) | |
| F42A1 | | 6/13/2012 | 6.4 | 600 | 190 | 8.7 | 43 | ND (< 5.0) | ND (< 5.0) | 74 | ND (< 5.0) | 330 | ND (< 5.0) | |
| F42A1 | | 3/12/2013 | 9.4 | 530 | 250 | 29 | 52 | ND (< 5.0) | ND (< 5.0) | 190 | ND (< 5.0) | 290 | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| F42A1R | | 6/19/2013 | 14 | 650 | 430 | 30 | 51 | ND (< 5.0) | ND (< 5.0) | 210 | ND (< 5.0) | 350 | ND (< 5.0) | |
| F42A1R | Dup | 6/19/2013 | 16 | 630 | 390 | 32 | 56 | ND (< 0.50) | ND (< 0.50) | 210 | 0.92 | 330 | 1.1 | Freon 11 = 1.2 |
| F42A1R | | 6/10/2014 | 19 | 780 | 800 | 23 | 58 | ND (< 10) | ND (< 10) | 260 | ND (< 10) | 650 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F43A1U | | 12/20/1990 | 0.2 | 0.5 | 0.3 | 1.5 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F43A1U | | 4/9/1991 | ND (< 0.5) | ND (< 0.5) | 1 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | |
| F43A1U | | 7/23/1991 | ND (< 0.5) | 19 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | |
| F43A1U | | 10/3/1991 | ND (< 0.5) | 72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | Dup | 10/3/1991 | ND (< 0.5) | 63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 12/4/1991 | ND (< 5) | 45 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F43A1U | | 3/9/1992 | ND (< 0.5) | 24 | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 6/3/1992 | ND (< 0.5) | 33 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 10/12/1992 | ND (< 0.5) | 54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 12/17/1992 | ND (< 5) | 68 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F43A1U | | 3/8/1993 | ND (< 0.5) | 15 | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | |
| F43A1U | | 6/2/1993 | ND (< 0.5) | 53 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | Dup | 6/2/1993 | ND (< 0.5) | 53 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 9/13/1993 | ND (< 0.5) | 120 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.97 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | Dup | 9/13/1993 | ND (< 0.5) | 100 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 12/2/1993 | ND (< 5) | 150 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F43A1U | Dup | 12/2/1993 | ND (< 5) | 150 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F43A1U | | 3/9/1994 | ND (< 0.5) | 110 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 6/13/1994 | ND (< 0.5) | 190 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 9/8/1994 | ND (< 0.5) | 290 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 12/12/1994 | ND (< 8.4) | 220 | ND (< 8.4) | ND (< 8.4) | ND (< 8.4) | ND (< 8.4) | - | ND (< 8.4) | ND (< 8.4) | ND (< 8.4) | ND (< 17) | |
| F43A1U | | 3/3/1995 | ND (< 0.5) | 150 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 6/8/1995 | ND (< 0.5) | 81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 9/6/1995 | ND (< 2.5) | 120 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F43A1U | Dup | 9/6/1995 | ND (< 5) | 130 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| F43A1U | | 12/8/1995 | ND (< 5) | 240 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F43A1U | | 3/6/1996 | ND (< 0.5) | 8.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | Dup | 3/6/1996 | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 6/6/1996 | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F43A1U | | 9/12/1996 | ND (< 0.5) | 27 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F43A1U | | 12/12/1996 | ND (< 5) | 130 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F43A1U | | 3/5/1997 | ND (< 1) | 93 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 92 |
| F43A1U | | 6/5/1997 | ND (< 1) | 54 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 101 |
| F43A1U | | 9/10/1997 | ND (< 1) | 95 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 1.3 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 102 |
| F43A1U | | 12/2/1997 | ND (< 1) | 66 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 92 |
| F43A1U | | 12/9/1998 | ND (< 0.5) | 28.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F43A1U | | 12/13/1999 | ND (< 0.5) | 19.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F43A1U | | 12/7/2000 | ND (< 0.50) | 17 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F43A1U | | 6/20/2001 | ND (< 0.50) | 13 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F43A1U | | 6/24/2003 | ND (< 0.50) | 8.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F43A1U | | 6/23/2005 | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | CHLFM = 0.54 |
| | | | | | | | | | | | | | | |
| F44A | | 12/17/1990 | 2 | 1,700 | 3 | 4 | 6.1 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F44A | Dup | 12/17/1990 | 2 | 780 | 3 | 4 | 6 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F44A | | 4/9/1991 | ND (< 10) | 5,000 | ND (< 10) | ND (< 10) | ND (< 100) | ND (< 10) | ND (< 5) | 110 | 20 | ND (< 10) | ND (< 10) | |
| F44A | | 7/23/1991 | ND (< 2.5) | 420 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F44A | | 10/7/1991 | ND (< 0.5) | 3,400 | ND (< 0.5) | 0.7 | ND (< 50) | ND (< 0.5) | ND (< 0.5) | 63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F44A | | 12/4/1991 | ND (< 50) | 5,100 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | - | - | ND (< 50) | ND (< 50) | ND (< 100) | |
| F44A | | 3/12/1992 | ND (< 5) | 4,600 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | 59 | 11 | ND (< 5) | ND (< 5) | |
| F44A | Dup | 3/12/1992 | ND (< 5) | 4,500 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | 68 | 12 | ND (< 5) | ND (< 5) | |
| F44A | | 6/4/1992 | ND (< 25) | 7,500 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 40 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 9/14/1992 | ND (< 25) | 7,600 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 100 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | Dup | 9/14/1992 | ND (< 25) | 7,400 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 100 | ND (< 25) | ND (< 25) | ND (< 25) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F44A | | 12/8/1992 | ND (< 25) | 5,100 | ND (< 25) | ND (< 25) | 26 | ND (< 25) | - | 130 | 26 | ND (< 25) | ND (< 50) | |
| F44A | | 3/8/1993 | ND (< 2.5) | 500 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F44A | | 6/2/1993 | ND (< 5) | 1,700 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 25 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F44A | | 9/13/1993 | ND (< 10) | 4,700 | ND (< 10) | ND (< 10) | ND (< 50) | ND (< 10) | ND (< 10) | 77 | 14 | ND (< 10) | ND (< 10) | |
| F44A | | 12/2/1993 | ND (< 50) | 6,700 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | - | 75 | ND (< 50) | ND (< 50) | ND (< 100) | |
| F44A | | 3/10/1994 | ND (< 25) | 6,300 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 78 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | Dup | 3/10/1994 | ND (< 25) | 6,200 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 76 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 6/13/1994 | ND (< 25) | 8,900 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 98 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 9/7/1994 | ND (< 2.5) | 7,400 | ND (< 2.5) | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 110 | 18 | ND (< 2.5) | ND (< 2.5) | |
| F44A | | 12/13/1994 | ND (< 33) | 5,300 | ND (< 33) | ND (< 33) | ND (< 33) | ND (< 33) | - | 73 | ND (< 33) | ND (< 33) | ND (< 67) | |
| F44A | Dup | 12/13/1994 | ND (< 33) | 5,300 | ND (< 33) | ND (< 33) | ND (< 33) | ND (< 33) | - | 76 | ND (< 33) | ND (< 33) | ND (< 67) | |
| F44A | | 3/6/1995 | 14 | 1,900 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 35 | ND (< 10) | ND (< 10) | ND (< 10) | |
| F44A | | 6/9/1995 | ND (< 50) | 6,500 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 53 | ND (< 50) | ND (< 50) | ND (< 50) | |
| F44A | | 9/8/1995 | ND (< 25) | 4,900 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 95 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 12/11/1995 | ND (< 5) | 3,400 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 37 | 5.3 | ND (< 5) | ND (< 10) | |
| F44A | | 3/7/1996 | ND (< 50) | 3,200 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | |
| F44A | | 6/11/1996 | ND (< 100) | 5,600 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | CBMA = 105 |
| F44A | | 9/13/1996 | ND (< 50) | 4,400 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 101 ; MC = 100 |
| F44A | | 12/16/1996 | ND (< 100) | 3,100 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | - | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 200) | |
| F44A | | 3/7/1997 | ND (< 25) | 1,600 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 96 |
| F44A | | 6/9/1997 | ND (< 25) | 2,700 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 46 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 98 |
| F44A | | 9/12/1997 | ND (< 50) | 2,600 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 101 |
| F44A | | 12/4/1997 | ND (< 50) | 2,000 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 97 |
| F44A | | 6/5/1998 | ND (< 50) | 1,700 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 102 |
| F44A | | 12/11/1998 | ND (< 50) | 2,460 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 72.3 |
| F44A | | 6/10/1999 | ND (< 125) | 1,780 | ND (< 125) | ND (< 125) | ND (< 125) | ND (< 125) | ND (< 125) | ND (< 125) | ND (< 125) | ND (< 125) | ND (< 125) | |
| F44A | | 12/13/1999 | ND (< 100) | 1,880 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | BDCHLMA = 139 |
| F44A | | 6/8/2000 | ND (< 25) | 2,500 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 12/7/2000 | ND (< 25) | 2,500 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 100) | ND (< 25) | |
| F44A | | 6/21/2001 | ND (< 25) | 2,800 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 43 | ND (< 25) | ND (< 100) | ND (< 25) | |
| F44A | | 6/27/2002 | ND (< 25) | 2,100 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 32 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 6/27/2003 | ND (< 25) | 1,700 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | |
| F44A | | 9/2/2004 | ND (< 20) | 2,200 | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | 34 | ND (< 20) | ND (< 20) | ND (< 20) | |
| F44A | | 9/2/2004 | ND (< 20) | 2,600 | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | 39 | ND (< 20) | ND (< 20) | ND (< 20) | |
| F44A | Dup | 9/2/2004 | ND (< 20) | 2,500 | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | 38 | ND (< 20) | ND (< 20) | ND (< 20) | |
| F44A | | 3/23/2005 | ND (< 0.5) | 740 | ND (< 0.5) | 14 | 3.3 | - | ND (< 0.5) | 13 | - | ND (< 1.0) | - | |
| F44A | | 4/29/2005 | ND (< 5) | 370 | ND (< 5) | 11 | ND (< 5) | ND (< 5) | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F44A | | 6/28/2005 | ND (< 5.0) | 260 | ND (< 5.0) | 16 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 22 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| F45A1U | | 12/17/1990 | 2 | 1,000 | 3.3 | 4 | 3 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F45A1U | | 2/6/1991 | 20 | 1,500 | 30 | 40 | 30 | 30 | 100 | - | - | 100 | 30 | 1,1,2,2-TCA = 30 ; 1,1,2-TCA = 20 ; 1,2-DCPA = 20 ; 1,3-DCB = 100 ; 1,4-DCB = 100 ; 2-CVE = 40 ; BDCHLMA = 40 ; BRFM = 50 ; BRMA = 50 ; CHLBZ = 40 ; CHLEA = 50 ; CHLFM = 20 ; CHLMA = 50 ; cis-1,3-DCP = 30 ; CT = 30 ; DBCM = 40 ; EDB = 100 ; Freon 11 = 50 ; MC = 500 ; trans-1,3-DCP = 30 |
| F45A1U | | 4/9/1991 | ND (< 10) | 3,100 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 5) | 24 | ND (< 10) | ND (< 10) | ND (< 10) | |
| F45A1U | | 3/3/1993 | ND (< 5) | 2,400 | 6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 6/7/1993 | ND (< 5) | 1,100 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 8 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 9/9/1993 | ND (< 5) | 1,400 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 8.9 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 12/2/1993 | ND (< 10) | 1,200 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | - | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 20) | |
| F45A1U | | 3/8/1994 | ND (< 5) | 1,400 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 9.5 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 6/7/1994 | ND (< 5) | 2,900 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 9/7/1994 | ND (< 5) | 1,200 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F45A1U | | 12/13/1994 | ND (< 5) | 2,700 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 22 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F45A1U | | 3/6/1995 | ND (< 5) | 1,300 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 8.5 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 6/9/1995 | ND (< 5) | 1,200 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 6.2 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F45A1U | | 9/8/1995 | ND (< 25) | 1,100 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | ND (< 25) | MC = 130 |
| F45A1U | | 11/17/1995 | ND (< 5) | 740 | ND (< 5) | ND (< 5) | ND (< 5) | 13 | ND (< 5) | 7.3 | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 9 |
| F45A1U | | 12/11/1995 | ND (< 5) | 790 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 5.8 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F45A1U | | 3/7/1996 | ND (< 12) | 650 | ND (< 12) | ND (< 18) | ND (< 25) | ND (< 12) | ND (< 25) | ND (< 12) | ND (< 25) | ND (< 25) | ND (< 45) | MC = 66 |
| F45A1U | Dup | 3/7/1996 | ND (< 12) | 600 | ND (< 12) | ND (< 18) | ND (< 25) | ND (< 12) | ND (< 25) | ND (< 12) | ND (< 25) | ND (< 25) | ND (< 45) | |
| F45A1U | | 6/10/1996 | 10 | 510 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 104 ; MC = 10 |
| F45A1U | | 9/13/1996 | ND (< 10) | 460 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 101 |
| F45A1U | | 9/13/1996 | ND (< 25) | 630 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 107 ; MC = 66 |
| F45A1U | | 12/16/1996 | ND (< 10) | 250 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | - | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 20) | |
| F45A1U | | 3/7/1997 | ND (< 5) | 530 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 6 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 116 ; CHLFM = 5.3 |
| F45A1U | | 6/9/1997 | ND (< 5) | 390 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 6.2 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 ; CHLFM = 9.6 |
| F45A1U | | 9/12/1997 | ND (< 5) | 310 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 ; CHLFM = 9.6 |
| F45A1U | | 12/4/1997 | ND (< 5) | 240 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 93 |
| F45A1U | | 6/2/1998 | ND (< 12) | 270 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 109 |
| F45A1U | | 12/11/1998 | ND (< 10) | 465 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 101 |
| F45A1U | | 6/10/1999 | ND (< 12.5) | 308 | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | |
| F45A1U | | 12/13/1999 | ND (< 25) | 409 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | |
| F45A1U | | 6/6/2000 | ND (< 5.0) | 320 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F45A1U | | 12/7/2000 | ND (< 5.0) | 340 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F45A1U | | 6/20/2001 | ND (< 5.0) | 360 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F45A1U | | 6/25/2003 | ND (< 5.0) | 300 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F45A1U | | 6/23/2005 | ND (< 0.50) | 150 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | CHLFM = 1.8 ; MC = 5.2 |
| F45A1U | Dup | 6/23/2005 | ND (< 0.50) | 150 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | CHLFM = 1.7 ; MC = 5.8 |
| | | | | | | | | | | | | | | |
| F46A1 | | 12/11/1990 | 0.2 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.5 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 1.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F46A1 | | 4/15/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 8/1/1991 | ND (< 0.5) | 25 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 10/14/1991 | ND (< 0.5) | 26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 12/13/1991 | ND (< 5) | 28 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F46A1 | | 3/6/1992 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 9/16/1992 | ND (< 0.5) | 33 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 12/15/1992 | ND (< 5) | 30 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F46A1 | | 3/5/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 8/16/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | Dup | 8/16/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 9/13/1993 | ND (< 0.5) | 0.55 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F46A1 | | 3/3/1994 | ND (< 0.5) | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 6/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 9/8/1994 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F46A1 | | 3/3/1995 | ND (< 0.5) | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 6/2/1995 | ND (< 0.5) | 6.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F46A1 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F46A1 | | 6/7/1996 | ND (< 0.5) | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F46A1 | | 9/11/1996 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F46A1 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F46A1 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F46A1 | | 6/4/1997 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; MC = 1.4 |
| F46A1 | | 9/9/1997 | ND (< 0.5) | 7.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F46A1 | | 12/5/1997 | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F46A1 | | 12/10/1998 | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| F46A1 | | 12/8/1999 | ND (< 0.5) | 3.88 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F46A1 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F46A1 | | 6/21/2001 | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F46A1 | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F46A1 | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F46A1 | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F46A1 | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F46A1 | Dup | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F46A1 | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F46A1 | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F49A1 | | 2/8/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F49A1 | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 11/4/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.1 ; BRFM = 3.6 ; CHLFM = 0.7 ; DBCM = 5.2 |
| F49A1 | | 12/6/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F49A1 | | 3/9/1992 | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | Dup | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 9/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 12/7/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F49A1 | | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 12/2/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F49A1 | | 3/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 9/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F49A1 | | 3/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F49A1 | | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F49A1 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F49A1 | Dup | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F49A1 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F49A1 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F49A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; MC = 0.77 |
| F49A1 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F49A1 | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F49A1 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F49A1 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F49A1 | | 6/10/1999 | ND (< 0.500) | 13.8 | 1.60 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.525 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F49A1 | | 7/29/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F49A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F49A1 | | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F49A1 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F49A1 | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F49A1 | Dup | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F49A1 | | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | Dup | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/18/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/11/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | Dup | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F49A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F50A1 | | 12/18/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.3 ; Ethylbenzene = 0.3 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; Xylenes = 0.9 |
| F50A1 | | 2/8/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F50A1 | | 2/8/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F50A1 | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F50A1 | | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F50A1 | | 11/5/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F50A1 | | 12/6/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F50A1 | | 3/9/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F50A1 | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F50A1 | | 10/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F50A1 | | 2/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F50A1 | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F51A1 | | 12/13/1990 | 2 | 5 | 3 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F51A1 | | 4/17/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 10/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 12/6/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F51A1 | | 3/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 6/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 9/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 12/7/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F51A1 | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F51A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F51A1 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F51A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F51A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F51A1 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F51A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 ; MC = 0.74 |
| F51A1 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| F51A1 | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99.7 |
| F51A1 | Dup | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98.7 |
| F51A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F51A1 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F53A1U | | 11/4/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 12/13/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | | 3/9/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 9/16/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 12/7/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | Dup | 12/7/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 12/2/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | Dup | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F53A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F53A1U | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F53A1U | | 12/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F53A1U | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 122 |
| F53A1U | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F53A1U | | 6/10/1999 | ND (< 2.50) | 16.3 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |
| F53A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F53A1U | | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F53A1U | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F53A1U | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F53A1U | | 6/27/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/18/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/11/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/16/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F53A1U | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F54A1U | | 12/13/1990 | 2 | 2 | 3 | 3 | 2 | 2 | 0.5 | 5 | 2 | - | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 3 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 5 ; Acetone = 5 ; BDCHLMA = 3 ; Benzene = 0.5 ; BRFM = 2 ; BRMA = 2 ; CHLBZ = 0.5 ; CHLEA = 2 ; CHLFM = 3 ; CHLMA = 3 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 2 ; Ethylbenzene = 0.5 ; Freon 11 = 3 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 2 ; Xylenes = 0.5 |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F54A1U | Dup | 12/13/1990 | 2 | 3.3 | 3 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 17 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 6.3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F54A1U | | 2/7/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.6 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F54A1U | | 4/17/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 4 |
| F54A1U | Dup | 4/17/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 3.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F54A1U | Dup | 4/17/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 3.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F54A1U | | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5.7 |
| F54A1U | | 10/11/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.3 |
| F54A1U | | 12/6/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F54A1U | | 3/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F54A1U | | 6/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F54A1U | | 9/16/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| F54A1U | | 12/10/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F54A1U | | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.3 |
| F54A1U | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F54A1U | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F54A1U | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F54A1U | | 3/4/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.1 |
| F54A1U | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F54A1U | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F54A1U | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F54A1U | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F54A1U | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F54A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F54A1U | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F54A1U | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 ; MC = 0.77 |
| F54A1U | | 6/5/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F54A1U | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F54A1U | | 6/10/1999 | ND (< 0.500) | 15.0 | 1.66 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.639 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F54A1U | | 7/29/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F54A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F54A1U | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F54A1U | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F54A1U | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F54A1U | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F54A1U | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F54A1U | | 6/18/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F54A1U | | 6/16/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F54A1U | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F54A1U | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F55A1U | | 8/26/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1,2,4-TCB = 1.7 |
| | | | | | | | | | | | | | | |
| F57A1U | | 12/13/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |
| F57A1U | | 2/7/1991 | 0.2 | 0.5 | 0.3 | 0.8 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F57A1U | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 7/25/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 10/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 12/13/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F57A1U | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | Dup | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 9/17/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 12/8/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F57A1U | | 3/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | Dup | 3/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F57A1U | | 3/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 9/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F57A1U | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F57A1U | | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F57A1U | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F57A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F57A1U | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F57A1U | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 ; MC = 0.62 |
| F57A1U | Dup | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 ; MC = 0.68 |
| F57A1U | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F57A1U | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F57A1U | | 6/5/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| F57A1U | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94.3 |
| F57A1U | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.624 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F57A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.533 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F57A1U | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.63 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F57A1U | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F57A1U | | 6/25/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/10/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.71 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.60 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F57A1U | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.60 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.68 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | Dup | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.60 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F57A1U | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.50 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F58A | | 12/13/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |
| F58A | | 2/7/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F58A | | 2/7/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F58A | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 7/25/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 10/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 12/13/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 9/17/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 12/8/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | Dup | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F58A | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F58A | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; MC = 0.62 |
| F58A | | 12/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F58A | | 12/11/1998 | ND (< 0.5) | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F58A | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F58A | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F58A | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F58A | | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | Dup | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/10/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F58A | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F59A1U | | 12/18/1990 | 710 | 240 | 38 | 4 | 22 | 3 | 10 | - | - | 6.1 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F59A1U | Dup | 12/18/1990 | 680 | 220 | 36 | 4 | 26 | 3 | 10 | - | - | 6.9 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F59A1U | | 2/7/1991 | 680 | 930 | 40 | 40 | 74 | 30 | 100 | - | - | 100 | 30 | 1,1,2,2-TCA = 30 ; 1,1,2-TCA = 20 ; 1,2-DCPA = 20 ; 1,3-DCB = 100 ; 1,4-DCB = 100 ; 2-CVE = 40 ; BDCHLMA = 40 ; BRFM = 50 ; BRMA = 50 ; CHLBZ = 40 ; CHLEA = 50 ; CHLFM = 20 ; CHLMA = 50 ; cis-1,3-DCP = 30 ; CT = 30 ; DBCM = 40 ; EDB = 100 ; Freon 11 = 50 ; MC = 500 ; trans-1,3-DCP = 30 |
| F59A1U | | 4/15/1991 | 450 | 1,100 | 27 | ND (< 5) | - | ND (< 5) | ND (< 5) | 400 | 57 | ND (< 5) | ND (< 5) | |
| F59A1U | | 5/3/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| F59A1U | | 7/29/1991 | 2,600 | 1,300 | 32 | ND (< 10) | ND (< 25) | ND (< 10) | ND (< 10) | 190 | ND (< 10) | 30 | ND (< 10) | |
| F59A1U | | 11/1/1991 | 2,700 | 1,700 | 36 | 6.5 | - | ND (< 2.5) | ND (< 2.5) | 260 | 39 | ND (< 2.5) | ND (< 2.5) | |
| F59A1U | | 12/16/1991 | 1,900 | 1,200 | 42 | 5.6 | - | ND (< 5) | - | - | 27 | ND (< 5) | ND (< 10) | |
| F59A1U | | 3/11/1992 | 3,100 | 2,400 | 10 | 5 | - | ND (< 5) | ND (< 5) | 980 | 99 | ND (< 5) | ND (< 5) | |
| F59A1U | | 6/8/1992 | 2,300 | 840 | 11 | ND (< 5) | - | ND (< 5) | ND (< 5) | 220 | 31 | ND (< 5) | ND (< 5) | |
| F59A1U | | 9/17/1992 | 1,400 | 420 | 16 | ND (< 5) | - | ND (< 5) | ND (< 5) | 47 | 10 | ND (< 5) | ND (< 5) | |
| F59A1U | | 12/14/1992 | 820 | 430 | 23 | 5.2 | - | ND (< 5) | - | 120 | 22 | ND (< 5) | ND (< 10) | |
| F59A1U | | 3/8/1993 | 2,100 | 1,500 | 9 | 6 | - | ND (< 5) | ND (< 5) | 470 | 120 | ND (< 5) | ND (< 5) | |
| F59A1U | | 6/14/1993 | 1,500 | 530 | 5 | ND (< 5) | ND (< 25) | ND (< 5) | ND (< 5) | 190 | 37 | ND (< 5) | ND (< 5) | |
| F59A1U | | 9/13/1993 | 1,600 | 400 | ND (< 5) | ND (< 5) | ND (< 25) | ND (< 5) | ND (< 5) | 110 | 26 | ND (< 5) | ND (< 5) | |
| F59A1U | | 12/3/1993 | 1,400 | 390 | ND (< 10) | ND (< 10) | - | ND (< 10) | - | 110 | 36 | ND (< 10) | ND (< 20) | |
| F59A1U | | 3/10/1994 | 910 | 450 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | 260 | 41 | ND (< 5) | ND (< 5) | |
| F59A1U | | 6/13/1994 | 1,700 | 580 | 7.4 | ND (< 5) | - | ND (< 5) | ND (< 5) | 210 | 49 | ND (< 5) | ND (< 5) | |
| F59A1U | | 9/9/1994 | 1,600 | 580 | 7.5 | ND (< 5) | - | ND (< 5) | ND (< 5) | 160 | 31 | ND (< 5) | ND (< 5) | |
| F59A1U | Dup | 9/9/1994 | 1,500 | 510 | 6.7 | ND (< 5) | - | ND (< 5) | ND (< 5) | 150 | 28 | ND (< 5) | ND (< 5) | |
| F59A1U | | 12/13/1994 | 1,200 | 790 | 12 | ND (< 8.4) | - | ND (< 8.4) | - | 240 | 53 | ND (< 8.4) | ND (< 17) | |
| F59A1U | | 3/6/1995 | 1,300 | 680 | 11 | ND (< 5) | - | ND (< 5) | ND (< 5) | 210 | 52 | ND (< 5) | ND (< 5) | |
| F59A1U | | 6/8/1995 | 910 | 300 | 5.7 | ND (< 5) | - | ND (< 5) | ND (< 5) | 34 | 6.3 | ND (< 5) | ND (< 5) | MC = 29 |
| F59A1U | | 9/8/1995 | 1,200 | 460 | ND (< 12) | ND (< 12) | - | ND (< 12) | ND (< 12) | 75 | 18 | ND (< 12) | ND (< 12) | |
| F59A1U | | 12/8/1995 | 1,400 | 540 | 9.6 | ND (< 5) | ND (< 50) | ND (< 5) | - | 120 | 29 | ND (< 5) | ND (< 10) | |
| F59A1U | | 3/7/1996 | 1,600 | 640 | 48 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 57 | ND (< 25) | ND (< 25) | ND (< 25) | |
| F59A1U | | 6/10/1996 | 1,300 | 360 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 29 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 116 ; MC = 19 |
| F59A1U | Dup | 6/10/1996 | 1,300 | 370 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 32 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 122 ; MC = 20 |
| F59A1U | | 9/13/1996 | 1,700 | 500 | 25 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 46 | 15 | ND (< 12) | ND (< 12) | CBMA = 97 ; MC = 20 |
| F59A1U | | 12/16/1996 | 800 | 170 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| F59A1U | | 3/7/1997 | 1,400 | 300 | 44 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 35 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 95 |
| F59A1U | | 6/9/1997 | 1,300 | 360 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 47 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 100 |
| F59A1U | | 9/12/1997 | 1,400 | 280 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 44 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 95 |
| F59A1U | Dup | 9/12/1997 | 1,300 | 270 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 45 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 95 |
| F59A1U | | 12/5/1997 | 1,100 | 410 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 110 | 42 | ND (< 25) | ND (< 25) | CBMA = 87 |
| F59A1U | | 6/2/1998 | 670 | 95 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 99 |
| F59A1U | | 12/10/1998 | 584 | 113 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 106 |
| F59A1U | | 6/8/1999 | 318 | 92.5 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | 17.4 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| F59A1U | | 1/28/2000 | 488 | 146 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 32.1 | 12.7 | ND (< 10) | ND (< 10) | |
| F59A1U | | 6/8/2000 | 310 | 57 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 6.5 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F59A1U | | 6/30/2006 | 190 | 66 | 3.2 | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | 7.0 | 2.2 | ND (< 0.50) | ND (< 0.50) | |
| F59A1U | Dup | 6/30/2006 | 180 | 63 | 3.3 | - | - | - | - | 7.6 | - | - | - | |
| F59A1U | | 6/20/2007 | 260 | 96 | 8.1 | ND (< 2.0) | 5.8 | ND (< 2.0) | ND (< 2.0) | 8.5 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F59A1U | | 6/10/2009 | 180 | 92 | 6.9 | ND (< 2.5) | 3.9 | ND (< 2.5) | ND (< 2.5) | 6.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F59A1U | | 7/11/2011 | 140 | 60 | 4.4 | ND (< 2.5) | 3.0 | ND (< 2.5) | ND (< 2.5) | 3.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F59A1U | | 7/25/2013 | 130 | 54 | 1.9 | ND (< 1.0) | 1.3 | ND (< 1.0) | ND (< 1.0) | 2.7 | 1.4 | ND (< 1.0) | ND (< 1.0) | |
| F59A1U | | 6/10/2014 | 120 | 51 | 1.2 | ND (< 1.0) | 1.2 | ND (< 1.0) | ND (< 1.0) | 6.4 | 1.1 | ND (< 1.0) | ND (< 1.0) | |
| F59A1U | Dup | 6/10/2014 | 110 | 44 | 1.2 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | 6.0 | 0.96 | ND (< 0.50) | 0.74 | |
| | | | | | | | | | | | | | | |
| F60A | | 12/18/1990 | 8.3 | 29 | 4.1 | 4 | 3 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F60A | | 4/15/1991 | 1 | 38 | 2 | 1 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F60A | | 5/3/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| F60A | | 7/29/1991 | 3 | 430 | 23 | 3.8 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 9.7 | ND (< 0.5) | 5.8 | ND (< 0.5) | |
| F60A | | 11/12/1991 | 2.1 | 240 | 13 | 2.5 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 6.5 | ND (< 0.5) | 1.5 | ND (< 0.5) | |
| F60A | | 12/16/1991 | ND (< 5) | 200 | 11 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F60A | | 3/11/1992 | 1.7 | 150 | 14 | 2.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 6.5 | ND (< 0.5) | 2 | ND (< 0.5) | |
| F60A | | 6/10/1992 | 0.7 | 130 | 7.4 | 1.5 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 5.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F60A | | 9/16/1992 | 1.5 | 290 | 23 | 4 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 9.7 | ND (< 0.5) | 2.5 | ND (< 0.5) | CHLFM = 0.9 |
| | | | | | | | | | | | | | | |
| F61A1U | | 12/13/1990 | 3.4 | 470 | 34 | 4 | 4.4 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 200 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2.3 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F61A1U | | 12/13/1990 | - | - | - | - | - | - | - | - | - | - | - | |
| F61A1U | | 2/7/1991 | 10 | 630 | 36 | 20 | 15 | 15 | 50 | - | - | 50 | 15 | 1,1,2,2-TCA = 15 ; 1,1,2-TCA = 10 ; 1,2-DCPA = 10 ; 1,3-DCB = 50 ; 1,4-DCB = 50 ; 2-CVE = 20 ; BDCHLMA = 20 ; BRFM = 25 ; BRMA = 25 ; CHLBZ = 20 ; CHLEA = 25 ; CHLFM = 10 ; CHLMA = 25 ; cis-1,3-DCP = 15 ; CT = 15 ; DBCM = 20 ; EDB = 50 ; Freon 11 = 25 ; MC = 250 ; trans-1,3-DCP = 15 |
| F61A1U | | 4/18/1991 | 21 | 850 | 71 | 7 | ND (< 10) | ND (< 3) | ND (< 3) | 44 | ND (< 3) | ND (< 3) | ND (< 3) | |
| F61A1U | | 7/24/1991 | 53 | 870 | 64 | 5 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 52 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F61A1U | | 11/4/1991 | 10 | 1,000 | 70 | 5 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 52 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F61A1U | | 12/11/1991 | ND (< 5) | 980 | 55 | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F61A1U | | 3/6/1992 | 4.2 | 680 | 71 | 5.6 | ND (< 10) | ND (< 1) | ND (< 1) | 55 | ND (< 1) | 2.4 | ND (< 1) | CHLFM = 2.4 |
| F61A1U | | 6/5/1992 | 6 | 680 | 65 | 4 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 59 | ND (< 2.5) | 4.5 | ND (< 2.5) | |
| F61A1U | | 9/11/1992 | 8.2 | 580 | 76 | 6.6 | ND (< 5) | ND (< 1) | ND (< 1) | 63 | ND (< 1) | 2.2 | ND (< 1) | CHLFM = 3.6 |
| F61A1U | | 12/10/1992 | 8.6 | 670 | 62 | 5.8 | ND (< 25) | ND (< 5) | - | 62 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F61A1U | | 3/8/1993 | 12 | 570 | 99 | 8.8 | ND (< 5) | ND (< 1) | ND (< 1) | 63 | ND (< 1) | 2.6 | ND (< 1) | CHLFM = 5.4 |
| F61A1U | | 6/4/1993 | 4.8 | 480 | 100 | 7.4 | ND (< 5) | ND (< 1) | ND (< 1) | 86 | ND (< 1) | 1.6 | ND (< 1) | CHLFM = 2.2 |
| F61A1U | | 9/13/1993 | 14 | 440 | 89 | 7.3 | - | ND (< 1) | ND (< 1) | 68 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.5 |
| F61A1U | | 12/9/1993 | 34 | 430 | 75 | 7.4 | - | ND (< 5) | - | 63 | ND (< 5) | 6.9 | ND (< 10) | |
| F61A1U | | 3/8/1994 | 25 | 420 | 62 | 5.8 | - | ND (< 1) | ND (< 1) | 52 | ND (< 1) | 2.7 | ND (< 1) | CHLFM = 2.1 |
| F61A1U | | 6/10/1994 | 2 | 540 | 80 | 7.6 | - | ND (< 1) | ND (< 1) | 67 | ND (< 1) | 4.1 | ND (< 1) | CHLFM = 2.2 |
| F61A1U | | 9/8/1994 | 56 | 430 | 62 | 9.6 | - | ND (< 0.5) | ND (< 0.5) | 63 | 0.96 | 5.4 | ND (< 0.5) | CHLFM = 2.2 |
| F61A1U | | 12/13/1994 | 17 | 390 | 74 | 7.4 | - | ND (< 5) | - | 58 | ND (< 5) | 6.7 | ND (< 10) | |
| F61A1U | | 3/3/1995 | 94 | 360 | 63 | 5.3 | - | ND (< 2.5) | ND (< 2.5) | 66 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F61A1U | | 6/6/1995 | 21 | 360 | 74 | 7.7 | - | ND (< 2.5) | ND (< 2.5) | 69 | ND (< 2.5) | 5.4 | ND (< 2.5) | 1,2-DCPA = 2.8 ; CHLFM = 3 |
| F61A1U | Dup | 6/6/1995 | 25 | 340 | 76 | 7.4 | - | ND (< 2.5) | 3.4 | 67 | ND (< 2.5) | 5.3 | ND (< 2.5) | CHLFM = 3.3 |
| F61A1U | | 11/9/1995 | 23 | 320 | 44 | 6.2 | - | 0.83 | ND (< 0.5) | 40 | 2.4 | 6.3 | ND (< 0.5) | CHLFM = 2.5 |
| F61A1U | | 12/8/1995 | 23 | - | 46 | ND (< 5) | ND (< 50) | ND (< 5) | - | 37 | ND (< 5) | 8.1 | ND (< 10) | |
| F61A1U | | 3/7/1996 | 360 | 390 | 50 | 7.3 | 15 | ND (< 5) | ND (< 5) | 62 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F61A1U | | 6/6/1996 | 120 | 320 | 61 | 8.4 | 9.4 | ND (< 5) | ND (< 5) | 61 | 5.6 | 6.3 | ND (< 5) | CBMA = 101 ; CHLFM = 5.6 ; MC = 5.8 |
| F61A1U | | 9/13/1996 | 19 | 340 | 61 | 8.4 | 20 | ND (< 5) | ND (< 5) | 65 | ND (< 5) | 7.3 | ND (< 5) | CBMA = 104 ; MC = 9.7 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F61A1U | | 12/13/1996 | ND (< 10) | 280 | 39 | ND (< 10) | ND (< 10) | ND (< 10) | - | 46 | ND (< 10) | ND (< 10) | ND (< 20) | |
| F61A1U | | 3/7/1997 | 65 | 310 | 41 | ND (< 5) | 5.1 | ND (< 5) | ND (< 5) | 41 | ND (< 5) | 5.9 | ND (< 5) | CBMA = 112 |
| F61A1U | | 6/9/1997 | 35 | 280 | 42 | ND (< 5) | 8 | ND (< 5) | ND (< 5) | 33 | ND (< 5) | 5.2 | ND (< 5) | CBMA = 102 ; CHLFM = 5.4 |
| F61A1U | | 9/12/1997 | 57 | 350 | 41 | ND (< 5) | 7.4 | ND (< 5) | ND (< 5) | 31 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 102 ; CHLFM = 8.5 |
| F61A1U | | 12/4/1997 | 23 | 210 | 21 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 93 |
| F61A1U | | 6/3/1998 | ND (< 12) | 290 | 14 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 12 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 102 |
| F61A1U | Dup | 6/3/1998 | ND (< 12) | 280 | 14 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 13 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 105 |
| F61A1U | | 12/9/1998 | ND (< 10) | 294 | 18.7 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 92.7 |
| F61A1U | Dup | 12/9/1998 | 6.23 | 284 | 20.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 8.6 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 106 ; CHLFM = 5.11 |
| F61A1U | | 6/9/1999 | 12.3 | 240 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| F61A1U | | 12/8/1999 | 13 | 245 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 9.87 | ND (< 5) | ND (< 10) | ND (< 5) | |
| F61A1U | Dup | 12/8/1999 | 14.3 | 263 | ND (< 6.25) | ND (< 6.25) | ND (< 6.25) | ND (< 6.25) | ND (< 6.25) | 8.4 | ND (< 6.25) | ND (< 12.5) | ND (< 6.25) | |
| F61A1U | | 6/8/2000 | 48 | 270 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 5.1 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F61A1U | | 12/7/2000 | 6.6 | 100 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F61A1U | | 6/21/2001 | 5.5 | 160 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F61A1U | | 6/27/2003 | 7.6 | 160 | 3.1 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 5.5 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| F61A1U | | 6/20/2005 | ND (< 2.0) | 180 | 3.0 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 5.1 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| F61A1U | | 6/14/2007 | ND (< 1.0) | 100 | 1.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 2.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F61A1U | | 6/10/2008 | ND (< 0.5) | 82 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | 1.3 | - | ND (< 0.5) | - | |
| F61A1U | | 6/16/2009 | ND (< 0.50) | 96 | 0.75 | ND (< 0.50) | 0.53 | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F61A1U | | 7/11/2011 | ND (< 0.50) | 80 | 0.82 | 1.5 | 0.74 | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F61A1U | | 6/17/2013 | ND (< 0.50) | 84 | 0.96 | 2.9 | 0.82 | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F62A1 | | 12/13/1990 | 2 | 510 | 32 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 70 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 17 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 6.5 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F62A1 | | 12/13/1990 | - | - | - | - | - | - | - | - | - | - | - | |
| F62A1 | | 4/18/1991 | ND (< 5) | 460 | 24 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F62A1 | | 7/24/1991 | ND (< 2.5) | 1,000 | 46 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | Dup | 7/24/1991 | ND (< 2.5) | 1,000 | 44 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 11/1/1991 | ND (< 2.5) | 1,100 | 32 | ND (< 2.5) | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 12/11/1991 | ND (< 5) | 890 | 26 | ND (< 5) | ND (< 25) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F62A1 | | 3/6/1992 | ND (< 1) | 560 | 34 | 1.8 | ND (< 5) | ND (< 1) | ND (< 1) | 18 | ND (< 1) | 2 | ND (< 1) | |
| F62A1 | | 6/5/1992 | ND (< 2.5) | 840 | 30 | 3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 9/11/1992 | ND (< 2.5) | 830 | 24 | ND (< 2.5) | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 12/14/1992 | ND (< 5) | 650 | 34 | ND (< 5) | ND (< 5) | ND (< 5) | - | 24 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F62A1 | | 3/8/1993 | ND (< 2.5) | 510 | 22 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 6/7/1993 | ND (< 1) | 390 | 19 | 1.4 | ND (< 5) | ND (< 1) | ND (< 1) | 18 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F62A1 | | 9/13/1993 | ND (< 2.5) | 650 | 35 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 12/9/1993 | ND (< 5) | 560 | 25 | ND (< 5) | - | ND (< 5) | - | 18 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F62A1 | | 3/8/1994 | ND (< 1) | 590 | 23 | 2.1 | - | ND (< 1) | ND (< 1) | 16 | ND (< 1) | 3.4 | ND (< 1) | |
| F62A1 | | 6/10/1994 | ND (< 0.5) | 54 | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F62A1 | | 9/8/1994 | ND (< 0.5) | 380 | 16 | 2.2 | - | ND (< 0.5) | ND (< 0.5) | 14 | ND (< 0.5) | 2.2 | ND (< 0.5) | |
| F62A1 | | 12/13/1994 | ND (< 5) | 110 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 7.7 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F62A1 | | 3/3/1995 | ND (< 0.5) | 310 | 13 | 1.5 | - | ND (< 0.5) | ND (< 0.5) | 15 | ND (< 0.5) | 0.6 | ND (< 0.5) | CHLFM = 0.69 |
| F62A1 | Dup | 3/3/1995 | ND (< 0.5) | 290 | 13 | 1.5 | - | ND (< 0.5) | ND (< 0.5) | 15 | ND (< 0.5) | 1 | ND (< 0.5) | CHLFM = 0.72 |
| F62A1 | | 6/7/1995 | ND (< 2.5) | 460 | 23 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 11/9/1995 | ND (< 0.5) | 270 | 11 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | 2 | ND (< 0.5) | CHLFM = 0.91 |
| F62A1 | | 12/8/1995 | ND (< 5) | 290 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | - | 13 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F62A1 | | 3/7/1996 | ND (< 5) | 330 | 20 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F62A1 | Dup | 3/7/1996 | ND (< 5) | 340 | 20 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 16 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F62A1 | | 6/6/1996 | 2.9 | 140 | 14 | ND (< 2.5) | 3.6 | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 102 ; MC = 2.6 |
| F62A1 | | 9/13/1996 | 2.4 | 200 | 18 | 2.5 | 3.1 | ND (< 1.2) | ND (< 1.2) | 19 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 98 ; CHLFM = 1.9 |
| F62A1 | | 12/13/1996 | ND (< 5) | 170 | 9.7 | ND (< 5) | ND (< 5) | ND (< 5) | - | 16 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F62A1 | Dup | 12/13/1996 | ND (< 5) | 170 | 9.7 | ND (< 5) | ND (< 5) | ND (< 5) | - | 16 | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F62A1 | | 3/6/1997 | ND (< 1) | 76 | 4.3 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 8.7 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 109 ; CHLFM = 2.1 |
| F62A1 | | 6/6/1997 | ND (< 1) | 80 | 5.3 | 1.1 | 1.1 | ND (< 1) | ND (< 1) | 8.3 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 96 ; CHLFM = 2.7 |
| F62A1 | | 9/11/1997 | ND (< 1) | 95 | 5.3 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 6.9 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 92 ; CHLFM = 2.6 |
| F62A1 | | 12/4/1997 | ND (< 1) | 97 | 5.1 | 1.1 | 1.6 | ND (< 1) | ND (< 1) | 6.2 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 95 ; CHLFM = 1.2 |
| F62A1 | | 6/5/1998 | ND (< 5) | 100 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 106 |
| F62A1 | | 12/9/1998 | ND (< 2.5) | 100 | 6.75 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 5.08 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 95.3 ; CHLFM = 3.32 |
| F62A1 | | 6/9/1999 | ND (< 5.00) | 84.6 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| F62A1 | | 12/8/1999 | ND (< 5) | 134 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | |
| F62A1 | | 6/8/2000 | ND (< 2.0) | 110 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 8.0) | ND (< 2.0) | |
| F62A1 | | 12/7/2000 | ND (< 2.5) | 98 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F62A1 | | 6/21/2001 | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F62A1 | | 6/26/2002 | ND (< 2.5) | 75 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F62A1 | | 6/27/2003 | 0.66 | 59 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/23/2004 | ND (< 1.0) | 97 | 1.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 1.8 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F62A1 | | 6/20/2005 | ND (< 0.50) | 83 | 0.83 | ND (< 0.50) | 0.54 | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/27/2006 | ND (< 0.50) | 90 | 0.62 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/14/2007 | ND (< 0.50) | 75 | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/10/2008 | ND (< 0.50) | 82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/15/2009 | ND (< 0.50) | 18 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/9/2010 | ND (< 0.50) | 77 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.91 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 7/11/2011 | ND (< 0.50) | 57 | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.99 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/11/2012 | ND (< 0.50) | 59 | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.86 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/17/2013 | ND (< 0.50) | 54 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.89 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F62A1 | | 6/10/2014 | ND (< 0.50) | 51 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.87 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F63A1U/A1 | | 12/10/1990 | 0.2 | 21 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F63A1U/A1 | | 4/10/1991 | ND (< 0.5) | 21 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | Dup | 4/10/1991 | 0.2 | 17 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F63A1U/A1 | | 7/29/1991 | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 10/7/1991 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 12/11/1991 | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F63A1U/A1 | | 3/11/1992 | 0.7 | 60 | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F63A1U/A1 | | 6/12/1992 | ND (< 0.5) | 4.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 9/18/1992 | ND (< 0.5) | 6.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 12/15/1992 | ND (< 5) | 74 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F63A1U/A1 | | 3/11/1993 | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 6/8/1993 | ND (< 0.5) | 32 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 9/14/1993 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 12/9/1993 | ND (< 5) | 6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F63A1U/A1 | | 3/7/1994 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 6/6/1994 | ND (< 0.5) | 4.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 9/6/1994 | ND (< 0.5) | 22 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | Dup | 9/6/1994 | ND (< 0.5) | 23 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 12/9/1994 | ND (< 5) | 11 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F63A1U/A1 | | 3/3/1995 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 6/6/1995 | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 9/6/1995 | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F63A1U/A1 | | 12/7/1995 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F63A1U/A1 | | 3/5/1996 | ND (< 0.5) | 7.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F63A1U/A1 | | 6/7/1996 | 0.5 | 22 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.58 | ND (< 0.5) | CBMA = 104 |
| F63A1U/A1 | | 9/11/1996 | ND (< 0.5) | 9.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F63A1U/A1 | Dup | 9/11/1996 | ND (< 0.5) | 8.8 | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F63A1U/A1 | | 12/11/1996 | ND (< 5) | 7.2 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F63A1U/A1 | | 3/4/1997 | ND (< 0.5) | 3.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F63A1U/A1 | | 6/4/1997 | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F63A1U/A1 | Dup | 6/4/1997 | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F63A1U/A1 | | 9/10/1997 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F63A1U/A1 | | 12/3/1997 | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 87 |
| F63A1U/A1 | | 12/10/1998 | ND (< 2.5) | 26.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 118 |
| F63A1U/A1 | | 12/9/1999 | ND (< 1.25) | 43.5 | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | |
| F63A1U/A1 | | 12/7/2000 | ND (< 0.50) | 34 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F63A1U/A1 | | 6/19/2001 | 0.50 | 34 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F63A1U/A1 | Dup | 6/19/2001 | 0.55 | 36 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F63A1U/A1 | | 6/25/2003 | ND (< 0.50) | 27 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F63A1U/A1 | Dup | 6/25/2003 | ND (< 0.50) | 24 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F63A1U/A1 | | 6/22/2005 | ND (< 0.50) | 27 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F63A1U/A1 | | 6/13/2007 | ND (< 0.50) | 34 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.65 | ND (< 0.50) | |
| F63A1U/A1 | | 6/15/2009 | ND (< 0.50) | 21 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F63A1U/A1 | | 6/15/2011 | ND (< 0.50) | 19 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F63A1U/A1 | | 6/20/2013 | ND (< 0.50) | 15 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F64A1 | | 12/11/1990 | 0.4 | 47 | 0.7 | 0.4 | 0.6 | 0.3 | 0.5 | - | - | 0.5 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F64A1 | | 4/10/1991 | ND (< 1) | 39 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | MC = 2 |
| F64A1 | | 7/26/1991 | 0.9 | 76 | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 10/7/1991 | ND (< 0.5) | 80 | 0.9 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | |
| F64A1 | | 12/11/1991 | ND (< 5) | 68 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | | 3/11/1992 | 0.7 | 60 | 1 | ND (< 0.5) | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 6/12/1992 | 0.6 | 74 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | Dup | 6/12/1992 | 0.7 | 71 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 9/18/1992 | 0.9 | 77 | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 12/15/1992 | ND (< 5) | 81 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | | 3/11/1993 | 1.4 | 74 | 1.5 | ND (< 0.5) | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | |
| F64A1 | | 6/8/1993 | 0.5 | 74 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 9/14/1993 | 0.57 | 56 | 1.3 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 12/9/1993 | ND (< 5) | 69 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | | 3/7/1994 | 0.92 | 84 | 0.85 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | CHLFM = 0.51 |
| F64A1 | | 6/6/1994 | 1.3 | 96 | 0.84 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | CHLFM = 0.78 |
| F64A1 | | 9/6/1994 | 0.99 | 74 | 0.86 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | |
| F64A1 | | 12/9/1994 | ND (< 5) | 97 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | Dup | 12/9/1994 | ND (< 5) | 77 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | | 3/3/1995 | 1.2 | 84 | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | |
| F64A1 | | 6/8/1995 | 1.2 | 78 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | |
| F64A1 | | 9/6/1995 | ND (< 2.5) | 44 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F64A1 | | 12/8/1995 | ND (< 5) | 33 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | | 3/6/1996 | 1.6 | 52 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.93 | ND (< 0.5) | |
| F64A1 | | 6/11/1996 | 1.1 | 41 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 99 |
| F64A1 | | 9/12/1996 | 0.9 | 41 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F64A1 | | 12/12/1996 | ND (< 5) | 6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F64A1 | | 3/5/1997 | ND (< 0.5) | 25 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F64A1 | | 6/5/1997 | 1.5 | 36 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | CBMA = 94 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F64A1 | Dup | 6/5/1997 | 1.1 | 34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | CBMA = 100 |
| F64A1 | | 9/10/1997 | 1.4 | 42 | 0.78 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | CBMA = 100 ; MC = 1.6 |
| F64A1 | | 12/3/1997 | 0.83 | 29 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 88 |
| F64A1 | | 12/10/1998 | ND (< 2.5) | 44 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 109 |
| F64A1 | | 12/9/1999 | ND (< 0.5) | 2.26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F64A1 | | 12/5/2000 | 0.93 | 40 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F64A1 | | 6/19/2001 | 1.3 | 39 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F64A1 | | 6/25/2003 | 0.99 | 38 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.93 | ND (< 0.50) | |
| F64A1 | | 6/22/2005 | ND (< 0.50) | 37 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F64A1 | | 6/13/2007 | 1.2 | 36 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.59 | ND (< 0.50) | 1.3 | ND (< 0.50) | |
| F64A1 | | 6/15/2009 | 1.0 | 31 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.72 | ND (< 0.50) | 0.55 | ND (< 0.50) | |
| F64A1 | | 6/15/2011 | 0.82 | 29 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F64A1 | | 6/20/2013 | 0.84 | 25 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F64A1 | Dup | 6/20/2013 | 1.1 | 28 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F65A1U | | 12/10/1990 | 23 | 23 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F65A1U | | 4/9/1991 | 26 | 48 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Toluene = 0.7 |
| F65A1U | | 7/31/1991 | 18 | 40 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| F65A1U | | 10/11/1991 | 21 | 45 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 12/11/1991 | 29 | 46 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F65A1U | | 3/6/1992 | 15 | 34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 6/3/1992 | 17 | 40 | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | 2.9 | 0.5 | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 9/14/1992 | 17 | 41 | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | 2.7 | 0.5 | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 12/4/1992 | 23 | 42 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F65A1U | | 3/9/1993 | 39 | 42 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 6/10/1993 | 39 | 24 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 9/9/1993 | 23 | 34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 12/2/1993 | 38 | 37 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 11 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F65A1U | | 3/3/1994 | 65 | 55 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 6/8/1994 | 87 | 43 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 9/6/1994 | 78 | 48 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 12/5/1994 | 94 | 47 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 14 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F65A1U | | 3/2/1995 | 130 | 43 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 8.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 6/8/1995 | 71 | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 9/7/1995 | 88 | 36 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 27 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLFM = 2.6 |
| F65A1U | | 12/6/1995 | 110 | 48 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 36 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F65A1U | | 3/6/1996 | 120 | 42 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 19 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F65A1U | | 6/10/1996 | 140 | 35 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 26 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 118 ; MC = 1.8 |
| F65A1U | | 9/12/1996 | 140 | 30 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 100 |
| F65A1U | Dup | 9/12/1996 | 110 | 34 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 23 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 100 ; MC = 2.9 |
| F65A1U | | 12/12/1996 | 190 | 32 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 17 | ND (< 5) | ND (< 5) | ND (< 10) | MC = 6.6 |
| F65A1U | | 6/5/1997 | 140 | 30 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 97 |
| F65A1U | | 12/5/1997 | 140 | 28 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 87 |
| F65A1U | Dup | 12/5/1997 | 130 | 27 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 90 |
| F65A1U | | 6/4/1998 | 100 | 10 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 7.1 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 |
| F65A1U | | 12/10/1998 | 89.1 | 19.6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 9.74 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 117 |
| F65A1U | | 6/8/1999 | 114 | 17.0 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| F65A1U | | 12/8/1999 | 94.9 | 20 | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | 10.2 | ND (< 1.67) | ND (< 3.33) | ND (< 1.67) | |
| F65A1U | | 6/8/2000 | 110 | 19 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 3.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F65A1U | | 12/8/2000 | 71 | 13 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.5 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F65A1U | | 12/14/2010 | 50 | 3.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F65A1U | | 6/15/2011 | 60 | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F66A | | 12/10/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F66A | | 4/9/1991 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 10/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 12/11/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F66A | | 3/6/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F66A | | 6/3/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | Dup | 6/3/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 9/14/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 12/4/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F66A | | 6/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 12/2/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 24 |
| F66A | | 6/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | Dup | 6/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F66A | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F66A | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F66A | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F73A1 | | 12/10/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 75 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F73A1 | | 4/19/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 10/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F73A1 | | 3/4/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 9/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | Dup | 9/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 8.3 | ND (< 0.5) | 0.5 | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 12/10/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F73A1 | | 3/10/1993 | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.9 ; CHLFM = 4.4 |
| F73A1 | | 6/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F73A1 | | 9/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 26 | - | 1.8 | ND (< 0.5) | 89 | 5.8 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | Dup | 9/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 6.8 | - | 0.54 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | 14 | ND (< 5) | ND (< 5) | - | 37 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F73A1 | | 3/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 15 | - | 1.4 | ND (< 0.5) | 49 | 2 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 6/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.94 | - | ND (< 0.5) | ND (< 0.5) | 3 | 0.65 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 9/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | 12 | - | ND (< 5) | - | 53 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F73A1 | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 19 | - | 0.54 | ND (< 0.5) | 100 | 3.6 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7 | - | ND (< 0.5) | ND (< 0.5) | 36 | 1.2 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 9/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 35 | - | 2.2 | ND (< 0.5) | 140 | 9.1 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | 37 | - | ND (< 5) | - | 170 | 6.4 | ND (< 5) | ND (< 10) | |
| F73A1 | | 3/6/1996 | 0.86 | ND (< 0.5) | ND (< 0.5) | 64 | 27 | 4.1 | ND (< 0.5) | 310 | 14 | ND (< 0.5) | ND (< 0.5) | |
| F73A1 | | 6/5/1996 | ND (< 5) | ND (< 5) | ND (< 5) | 120 | 67 | 5.4 | ND (< 5) | 460 | 29 | ND (< 5) | ND (< 5) | CBMA = 113 ; MC = 6.4 |
| F73A1 | Dup | 6/5/1996 | ND (< 5) | ND (< 5) | ND (< 5) | 120 | 66 | 5.6 | ND (< 5) | 450 | 28 | ND (< 5) | ND (< 5) | CBMA = 111 ; MC = 6.4 |
| F73A1 | | 9/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | 79 | 32 | ND (< 5) | ND (< 5) | 320 | 15 | ND (< 5) | ND (< 5) | CBMA = 110 |
| F73A1 | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | MC = 5.2 |
| F73A1 | | 3/5/1997 | ND (< 10) | ND (< 10) | ND (< 10) | 110 | 40 | ND (< 10) | ND (< 10) | 440 | 20 | ND (< 10) | ND (< 10) | CBMA = 118 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F73A1 | | 6/4/1997 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 45 | 23 | 4.1 | ND (< 2.5) | 160 | 12 | ND (< 2.5) | ND (< 2.5) | CBMA = 109 ; MC = 2.7 |
| F73A1 | | 9/11/1997 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 69 | 35 | 5.8 | ND (< 2.5) | 250 | 17 | ND (< 2.5) | ND (< 2.5) | CBMA = 112 |
| F73A1 | | 12/22/1997 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 100 | 55 | 2.8 | ND (< 2.5) | 370 | 22 | ND (< 2.5) | ND (< 2.5) | CBMA = 111 |
| F73A1 | | 6/2/1998 | ND (< 25) | ND (< 25) | ND (< 25) | 160 | 75 | ND (< 25) | ND (< 25) | 660 | 28 | ND (< 25) | ND (< 25) | CBMA = 123 |
| F73A1 | Dup | 6/2/1998 | ND (< 25) | ND (< 25) | ND (< 25) | 160 | 72 | ND (< 25) | ND (< 25) | 630 | 28 | ND (< 25) | ND (< 25) | CBMA = 116 |
| F73A1 | | 12/11/1998 | ND (< 25) | ND (< 25) | ND (< 25) | 150 | 52.8 | ND (< 25) | ND (< 25) | 544 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 111 |
| F73A1 | | 6/10/1999 | ND (< 50.0) | ND (< 50.0) | ND (< 50.0) | 175 | 82.7 | ND (< 50.0) | ND (< 50.0) | 660 | ND (< 50.0) | ND (< 50.0) | ND (< 50.0) | |
| F73A1 | | 12/14/1999 | ND (< 25) | ND (< 25) | ND (< 25) | 196 | 99 | ND (< 25) | ND (< 25) | 720 | 41.9 | ND (< 25) | ND (< 25) | |
| F73A1 | | 6/8/2000 | ND (< 10) | ND (< 10) | ND (< 10) | 170 | 70 | ND (< 10) | ND (< 10) | 660 | 33 | ND (< 10) | ND (< 10) | |
| F73A1 | | 12/6/2000 | ND (< 10) | ND (< 10) | ND (< 10) | 200 | ND (< 10) | ND (< 10) | ND (< 10) | 630 | 34 | ND (< 40) | ND (< 10) | |
| F73A1 | | 6/20/2001 | ND (< 10) | ND (< 10) | ND (< 10) | 160 | 60 | ND (< 10) | ND (< 10) | 520 | 29 | ND (< 40) | ND (< 10) | |
| F73A1 | | 6/25/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 18 | 8.0 | ND (< 0.50) | ND (< 0.50) | 65 | 3.9 | ND (< 0.50) | ND (< 0.50) | |
| F73A1 | | 6/22/2005 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 16 | 13 | ND (< 2.5) | ND (< 2.5) | 66 | 4.0 | ND (< 2.5) | ND (< 2.5) | |
| F73A1 | | 6/18/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.9 | 2.5 | ND (< 0.50) | ND (< 0.50) | 16 | 1.2 | ND (< 0.50) | ND (< 0.50) | |
| F73A1 | | 6/12/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.7 | 2.1 | ND (< 0.50) | ND (< 0.50) | 14 | 1.1 | ND (< 0.50) | ND (< 0.50) | |
| F73A1 | | 12/10/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.4 | 1.8 | ND (< 0.50) | ND (< 0.50) | 13 | 0.96 | ND (< 0.50) | ND (< 0.50) | |
| F73A1 | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.8 | 2.0 | ND (< 0.50) | ND (< 0.50) | 13 | 1.1 | ND (< 0.50) | 1.0 | |
| F73A1 | | 6/16/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.83 | ND (< 0.50) | 2.3 | |
| F73A1 | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | 0.95 | ND (< 0.50) | 6.1 | |
| F73A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.7 | ND (< 0.50) | ND (< 0.50) | 1.5 | |
| | | | | | | | | | | | | | | |
| F74A | | 12/12/1990 | 0.2 | 3.4 | 0.3 | 1.7 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F74A | | 4/18/1991 | ND (< 0.5) | 10 | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | Dup | 4/18/1991 | ND (< 0.5) | 9.7 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 7/23/1991 | ND (< 0.5) | 17 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 10/10/1991 | ND (< 0.5) | 15 | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 12/12/1991 | ND (< 5) | 7.6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F74A | | 3/11/1992 | ND (< 0.5) | 2.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F74A | | 6/12/1992 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 9/15/1992 | ND (< 0.5) | 13 | ND (< 0.5) | 2.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 12/4/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F74A | | 2/3/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 3/10/1993 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 9/10/1993 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F74A | | 3/4/1994 | ND (< 0.5) | 0.58 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 6/10/1994 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 9/8/1994 | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | Dup | 9/8/1994 | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F74A | | 3/2/1995 | ND (< 0.5) | 4.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | Dup | 3/2/1995 | ND (< 0.5) | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 6/5/1995 | ND (< 0.5) | 9.5 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 9/6/1995 | ND (< 0.5) | 15 | ND (< 0.5) | 3.2 | - | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 12/7/1995 | ND (< 5) | 16 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F74A | | 3/5/1996 | ND (< 0.5) | 17 | ND (< 0.5) | 3.3 | 0.62 | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 6/7/1996 | ND (< 0.5) | 12 | ND (< 0.5) | 2.8 | 0.73 | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F74A | | 9/10/1996 | ND (< 0.5) | 15 | ND (< 0.5) | 3.2 | 1.2 | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F74A | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F74A | | 3/4/1997 | ND (< 0.5) | 3.3 | ND (< 0.5) | 0.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F74A | Dup | 3/4/1997 | ND (< 0.5) | 3.4 | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F74A | | 6/6/1997 | ND (< 0.5) | 4.4 | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F74A | | 9/10/1997 | ND (< 0.5) | 2.8 | ND (< 0.5) | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; MC = 1.8 |
| F74A | | 12/5/1997 | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F74A | | 6/4/1998 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F74A | | 12/10/1998 | ND (< 0.5) | 3.3 | ND (< 0.5) | 0.581 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F74A | | 6/9/1999 | ND (< 0.500) | 12.2 | ND (< 0.500) | 3.21 | 1.66 | ND (< 0.500) | ND (< 0.500) | 1.30 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F74A | | 12/7/1999 | ND (< 0.5) | 4.65 | ND (< 0.5) | 0.798 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 1/28/2000 | ND (< 0.5) | 5.41 | ND (< 0.5) | 0.945 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F74A | | 6/7/2000 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | Dup | 6/7/2000 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F74A | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F74A | | 6/21/2001 | ND (< 0.50) | 0.80 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F74A | | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | Dup | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/26/2003 | ND (< 0.50) | 3.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/22/2004 | ND (< 0.50) | 15 | ND (< 0.50) | 1.8 | 1.1 | ND (< 0.50) | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/21/2005 | ND (< 0.50) | 22 | ND (< 0.50) | 2.5 | 3.0 | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 9/10/2007 | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/26/2008 | ND (< 0.50) | 23 | ND (< 0.50) | 1.6 | 3.0 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/15/2009 | ND (< 0.50) | 34 | ND (< 0.50) | 1.8 | 2.8 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/9/2010 | ND (< 0.50) | 30 | ND (< 0.50) | 1.2 | 2.5 | ND (< 0.50) | ND (< 0.50) | 0.78 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/15/2011 | ND (< 0.50) | 35 | ND (< 0.50) | 1.3 | 2.8 | ND (< 0.50) | ND (< 0.50) | 0.83 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/14/2012 | ND (< 0.50) | 33 | ND (< 0.50) | 1.4 | 2.6 | ND (< 0.50) | ND (< 0.50) | 0.91 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/19/2013 | ND (< 0.50) | 40 | 0.50 | 1.7 | 3.5 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 11/13/2013 | ND (< 0.50) | 35 | ND (< 0.50) | 1.4 | 2.6 | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 2/25/2014 | ND (< 0.50) | 42 | ND (< 0.50) | 1.5 | 3.4 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 5/13/2014 | ND (< 0.50) | 33 | ND (< 0.50) | 1.3 | 3.1 | ND (< 0.50) | ND (< 0.50) | 0.93 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 6/10/2014 | ND (< 0.50) | 33 | ND (< 0.50) | 1.4 | 2.8 | ND (< 0.50) | ND (< 0.50) | 0.90 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F74A | | 8/13/2014 | ND (< 0.50) | 36 | ND (< 0.50) | 1.4 | 3.3 | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F75A1U | | 12/12/1990 | 0.2 | 0.5 | 0.3 | 1.2 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.5 ; CHLMA = 0.9 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F75A1U | | 4/22/1991 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 10/11/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 12/12/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F75A1U | | 3/11/1992 | ND (< 0.5) | 0.8 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 6/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 9/16/1992 | ND (< 0.5) | 0.6 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 12/4/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 22 |
| F75A1U | | 3/11/1993 | ND (< 0.5) | 0.8 | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 9/10/1993 | ND (< 0.5) | 1.3 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F75A1U | | 3/4/1994 | ND (< 0.5) | 0.86 | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | Dup | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 9/8/1994 | ND (< 0.5) | 0.72 | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F75A1U | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.94 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 9/5/1995 | ND (< 0.5) | 0.61 | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F75A1U | | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F75A1U | | 9/10/1996 | ND (< 0.5) | 1.3 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F75A1U | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F75A1U | | 3/4/1997 | ND (< 0.5) | 1.2 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F75A1U | | 6/3/1997 | ND (< 0.5) | 1.2 | ND (< 0.5) | 1.6 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F75A1U | | 9/9/1997 | ND (< 0.5) | 1.1 | ND (< 0.5) | 1.8 | 0.51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F75A1U | | 12/5/1997 | ND (< 0.5) | 0.76 | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F75A1U | | 6/4/1998 | ND (< 0.5) | 0.55 | ND (< 0.5) | 1.3 | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F75A1U | | 12/10/1998 | ND (< 0.5) | 1.15 | ND (< 0.5) | 1.79 | 0.716 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F75A1U | | 6/9/1999 | ND (< 0.500) | 1.13 | ND (< 0.500) | 1.48 | 0.806 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F75A1U | | 12/7/1999 | ND (< 0.5) | 1.3 | ND (< 0.5) | 1.59 | 0.759 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.606 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | Dup | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.573 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F75A1U | | 6/7/2000 | ND (< 0.50) | 1.0 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F75A1U | | 12/8/2000 | ND (< 0.50) | 1.1 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F75A1U | Dup | 12/8/2000 | ND (< 0.50) | 1.1 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F75A1U | | 6/21/2001 | ND (< 0.50) | 0.84 | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F75A1U | | 6/26/2003 | ND (< 0.50) | 0.85 | ND (< 0.50) | 0.68 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F75A1U | | 6/21/2005 | ND (< 0.50) | 1.1 | ND (< 0.50) | 0.85 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F75A1U | Dup | 6/21/2005 | ND (< 0.50) | 1.1 | ND (< 0.50) | 0.69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F75A1U | | 9/10/2007 | ND (< 0.50) | 0.68 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F75A1U | | 6/15/2009 | ND (< 0.50) | 0.91 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F75A1U | | 6/15/2011 | ND (< 0.50) | 0.77 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F75A1U | | 6/19/2013 | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F76A2 | | 12/12/1990 | 0.2 | 0.5 | 0.3 | 1.3 | 0.4 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F76A2 | | 4/11/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 7/30/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 10/7/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F76A2 | | 3/9/1992 | ND (< 0.5) | 0.5 | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 6/9/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 12/18/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F76A2 | | 3/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.1 | 1.6 | ND (< 0.5) | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.2 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F76A2 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3 | 0.72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F76A2 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F76A2 | Dup | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F76A2 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.5 | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F76A2 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7.3 | 4.4 | ND (< 0.5) | ND (< 0.5) | 0.88 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F76A2 | | 9/10/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.4 | 3.2 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F76A2 | | 12/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.2 | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 121 |
| F76A2 | | 12/9/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.06 | 3.02 | ND (< 0.5) | ND (< 0.5) | 0.538 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F76A2 | | 12/14/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7.01 | 3.98 | ND (< 0.5) | ND (< 0.5) | 0.975 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | Dup | 12/14/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7.89 | 4.57 | ND (< 0.5) | ND (< 0.5) | 1.07 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F76A2 | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 7.0 | 4.8 | ND (< 0.50) | ND (< 0.50) | 0.91 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F77A1U | | 12/12/1990 | 2 | 150 | 25 | 5.6 | 23 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F77A1U | | 4/11/1991 | ND (< 3) | 250 | 28 | 7 | - | ND (< 3) | ND (< 3) | 3 | ND (< 3) | ND (< 3) | ND (< 3) | |
| F77A1U | | 7/30/1991 | ND (< 0.5) | 230 | 24 | 6.3 | - | ND (< 0.5) | ND (< 0.5) | 2.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F77A1U | | 10/7/1991 | ND (< 0.5) | 210 | 26 | 7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| F77A1U | | 12/10/1991 | ND (< 5) | 200 | 17 | 6.9 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F77A1U | | 3/9/1992 | ND (< 0.5) | 150 | 21 | 6.2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F77A1U | | 6/9/1992 | ND (< 0.5) | 190 | 23 | 6.2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F77A1U | | 12/17/1992 | ND (< 5) | 190 | 17 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F77A1U | | 3/6/1996 | ND (< 0.5) | 120 | 10 | 2.8 | 9.7 | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.86 |
| F77A1U | | 6/5/1996 | ND (< 2.5) | 140 | 18 | 3.7 | 12 | ND (< 2.5) | ND (< 2.5) | 3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 105 |
| F77A1U | | 9/12/1996 | ND (< 2.5) | 140 | 19 | 4 | 14 | ND (< 2.5) | ND (< 2.5) | 3.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 109 ; MC = 3 |
| F77A1U | Dup | 9/12/1996 | ND (< 2.5) | 140 | 20 | 4.2 | 15 | ND (< 2.5) | ND (< 2.5) | 3.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 111 ; MC = 2.9 |
| F77A1U | | 12/13/1996 | ND (< 5) | 150 | 15 | ND (< 5) | 13 | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F77A1U | | 3/6/1997 | ND (< 0.5) | 39 | 3 | 1.1 | 1.5 | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F77A1U | | 6/6/1997 | ND (< 2.5) | 150 | 21 | 4.3 | 13 | ND (< 2.5) | ND (< 2.5) | 3.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 101 |
| F77A1U | | 9/12/1997 | ND (< 2.5) | 170 | 22 | 3.4 | 12 | ND (< 2.5) | ND (< 2.5) | 3.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 |
| F77A1U | | 12/5/1997 | ND (< 2.5) | 99 | 8.3 | ND (< 2.5) | 3.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 109 |
| F77A1U | | 6/3/1998 | ND (< 10) | 110 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 104 |
| F77A1U | | 12/9/1998 | ND (< 2.5) | 120 | 10.9 | ND (< 2.5) | 5.41 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 |
| F77A1U | | 6/9/1999 | ND (< 10.0) | 114 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| F77A1U | | 12/14/1999 | ND (< 5) | 118 | 7.32 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| F77A1U | | 6/7/2000 | ND (< 2.5) | 100 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F77A1U | Dup | 6/7/2000 | ND (< 2.5) | 100 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F77A1U | | 12/8/2000 | ND (< 2.5) | 100 | 3.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F77A1U | | 6/21/2001 | ND (< 2.5) | 88 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F77A1U | | 6/26/2003 | ND (< 0.50) | 58 | 1.5 | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F77A1U | | 6/20/2005 | ND (< 0.50) | 47 | 1.1 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F77A1U | | 6/14/2007 | ND (< 0.50) | 44 | 0.89 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F77A1U | | 6/10/2009 | ND (< 0.50) | 32 | 0.55 | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F77A1U | | 6/15/2011 | ND (< 0.50) | 31 | 0.56 | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F77A1U | | 6/18/2013 | ND (< 0.50) | 25 | ND (< 0.50) | ND (< 0.50) | 0.62 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F77A1U | Dup | 6/18/2013 | ND (< 0.50) | 25 | ND (< 0.50) | ND (< 0.50) | 0.66 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F78A1 | | 12/18/1990 | 2 | 5 | 4.2 | 5.2 | 14 | 4.9 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 3.6 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F78A1 | | 4/16/1991 | 1 | 11 | 7 | 8 | - | 4 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5 ; Freon 11 = 6 |
| F78A1 | | 7/24/1991 | 2 | 32 | 6.2 | 4.4 | - | 3.4 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 13 ; Freon 11 = 7.6 |
| F78A1 | | 11/1/1991 | 2.9 | 43 | 5.6 | 4.2 | - | 5.9 | ND (< 0.5) | 0.7 | ND (< 0.5) | 2.1 | ND (< 0.5) | CHLFM = 19 ; Freon 11 = 5.7 |
| F78A1 | | 12/5/1991 | ND (< 5) | 48 | 7.5 | ND (< 5) | - | 5.1 | - | - | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 11 ; Benzene = 12 ; CHLFM = 22 ; Ethylbenzene = 9 ; Toluene = 13 ; Xylenes = 100 |
| F78A1 | | 3/6/1992 | 4 | 50 | 5.3 | 3.4 | - | 5.3 | ND (< 0.5) | 0.6 | ND (< 0.5) | 2.1 | ND (< 0.5) | CHLFM = 23 ; Freon 11 = 4.5 |
| F78A1 | | 6/11/1992 | 8.4 | 98 | 5 | 2.2 | ND (< 1) | 2.8 | ND (< 0.5) | 0.5 | ND (< 0.5) | 3 | ND (< 0.5) | CHLFM = 25 ; Freon 11 = 3.5 |
| F78A1 | | 9/11/1992 | 13 | 98 | 3.1 | 1.9 | ND (< 2.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | CHLFM = 21 ; Freon 11 = 2.6 |
| F78A1 | | 12/15/1992 | 14 | 89 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 14 |
| F78A1 | | 3/5/1993 | 22 | 120 | 4.1 | 3 | ND (< 2.5) | 1.8 | ND (< 0.5) | 0.6 | ND (< 0.5) | 3 | ND (< 0.5) | CHLFM = 18 ; Freon 11 = 7.9 |
| F78A1 | | 6/10/1993 | 24 | 110 | 3.2 | 1.6 | ND (< 2.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | CHLFM = 19 ; Freon 11 = 7.5 |
| F78A1 | | 9/13/1993 | 21 | 130 | 1.8 | 1.1 | ND (< 2.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 20 ; Freon 11 = 3.1 |
| F78A1 | | 12/3/1993 | 23 | 120 | ND (< 5) | ND (< 5) | - | 6.6 | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 18 |
| F78A1 | | 3/2/1994 | 32 | 190 | 2 | 1.6 | - | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | CHLFM = 20 ; Freon 11 = 4.6 |
| F78A1 | | 6/10/1994 | 47 | 150 | 1.5 | 0.66 | - | 0.89 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.4 | ND (< 0.5) | CHLFM = 24 ; Freon 11 = 2.1 |
| F78A1 | | 9/6/1994 | 44 | 120 | 1.1 | 0.57 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | CHLEA = 1 ; CHLFM = 3.1 |
| F78A1 | | 12/7/1994 | 32 | 99 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F78A1 | | 3/2/1995 | 8.5 | 27 | ND (< 0.5) | ND (< 0.5) | - | 0.71 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| F78A1 | | 6/8/1995 | 22 | 90 | 0.76 | 1.5 | - | 6.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.99 | ND (< 0.5) | CHLEA = 1.3 ; CHLFM = 4.7 ; Freon 11 = 0.91 |
| F78A1 | | 9/7/1995 | 16 | 63 | ND (< 0.5) | 1.7 | - | 9.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3.6 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F78A1 | | 12/8/1995 | 16 | 66 | ND (< 5) | ND (< 5) | - | 6.1 | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F78A1 | Dup | 12/8/1995 | 14 | 58 | ND (< 5) | ND (< 5) | - | 5.9 | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F78A1 | | 3/6/1996 | 14 | 48 | ND (< 0.5) | 1.2 | 6.3 | 6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 ; Freon 11 = 0.94 |
| F78A1 | | 6/7/1996 | 21 | 80 | 1.1 | 2.5 | 8.2 | 5.9 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 115 ; CHLFM = 1.6 ; Freon 11 = 1.1 |
| F78A1 | | 9/12/1996 | 33 | 94 | 2 | 2.6 | 9.5 | 7.3 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 109 ; CHLFM = 1.3 ; Freon 11 = 1.4 ; MC = 1.1 |
| F78A1 | | 12/13/1996 | 20 | 74 | ND (< 5) | ND (< 5) | 6 | 5.3 | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F78A1 | | 3/6/1997 | 18 | 46 | ND (< 0.5) | 1.7 | 2.4 | 6.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 0.67 |
| F78A1 | | 6/5/1997 | 18 | 41 | ND (< 0.5) | 2 | 2.4 | 7.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 ; CHLFM = 0.76 |
| F78A1 | | 9/11/1997 | 25 | 41 | ND (< 0.5) | 0.81 | 2.5 | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| F78A1 | | 12/3/1997 | 6.2 | 18 | ND (< 0.5) | 0.53 | 0.99 | 7.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 88 |
| F78A1 | | 6/4/1998 | 12 | 20 | ND (< 0.5) | ND (< 0.5) | 0.75 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F78A1 | | 12/10/1998 | 9.9 | 14.6 | ND (< 0.5) | ND (< 0.5) | 0.792 | 0.696 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97.3 |
| F78A1 | | 6/10/1999 | 6.25 | 9.62 | ND (< 0.500) | ND (< 0.500) | 0.610 | 0.700 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F78A1 | Dup | 6/10/1999 | 6.12 | 8.94 | ND (< 0.500) | ND (< 0.500) | 0.574 | 0.726 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F78A1 | | 12/9/1999 | 2.93 | 6.34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F78A1 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 5.6 | 6.2 | ND (< 0.50) | ND (< 0.50) | 0.71 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F78A1 | | 12/5/2000 | 3.0 | 6.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F78A1 | Dup | 12/5/2000 | 4.0 | 7.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F78A1 | | 6/19/2001 | 2.5 | 5.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F78A1 | | 6/25/2003 | 2.6 | 5.9 | ND (< 0.50) | 0.64 | 0.55 | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F78A1 | | 6/22/2005 | 1.2 | 3.7 | ND (< 0.50) | 0.55 | 0.94 | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F78A1 | | 6/13/2007 | 0.63 | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F78A1 | | 6/11/2009 | 0.60 | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F78A1 | | 6/15/2011 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F78A1 | | 6/19/2013 | ND (< 0.50) | 0.89 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F79A2D | | 12/10/1990 | 0.2 | 1.8 | 0.9 | 0.8 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F79A2D | | 4/9/1991 | ND (< 0.5) | 2 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 7/25/1991 | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 11/5/1991 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F79A2D | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 6/10/1992 | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 9/14/1992 | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 12/11/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F79A2D | | 3/9/1993 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 6/8/1993 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 9/14/1993 | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F79A2D | | 3/7/1994 | ND (< 0.5) | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 6/6/1994 | ND (< 0.5) | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F79A2D | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F79A2D | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F79A2D | | 12/9/1996 | ND (< 5) | 51 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | - | 6.1 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F79A2D | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F79A2D | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F79A2D | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F79A2D | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F79A2D | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F79A2D | | 3/9/2007 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F80A2 | | 12/10/1990 | 0.2 | 0.5 | 0.7 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 1.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F80A2 | | 4/19/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F80A2 | | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F80A2 | | 10/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F80A2 | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F80A2 | | 3/4/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F80A2 | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F80A2 | | 9/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F80A2 | | 12/10/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F80A2 | | 6/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F80A2 | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F80A2 | | 6/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| F83A1U | | 12/11/1990 | 2 | 93 | 28 | 4 | 9.9 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2.9 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F83A1U | | 4/22/1991 | ND (< 0.5) | 120 | 28 | 3 | ND (< 3) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F83A1U | | 7/30/1991 | ND (< 0.5) | 110 | 25 | 2.6 | - | 0.5 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| F83A1U | | 10/9/1991 | ND (< 1) | 110 | 25 | 2.6 | - | ND (< 1) | ND (< 1) | 1.2 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F83A1U | | 12/10/1991 | ND (< 5) | 110 | 19 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | Dup | 12/10/1991 | ND (< 5) | 100 | 17 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | | 3/5/1992 | ND (< 0.5) | 94 | 18 | 2.2 | ND (< 1) | 0.5 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| F83A1U | | 6/5/1992 | ND (< 0.5) | 95 | 17 | 1.6 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F83A1U | | 9/22/1992 | ND (< 0.5) | 94 | 18 | 2.3 | ND (< 1) | 0.6 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F83A1U | | 12/11/1992 | ND (< 5) | 100 | 18 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | | 3/9/1993 | ND (< 0.5) | 94 | 27 | 3.8 | ND (< 2.5) | 0.5 | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F83A1U | | 6/11/1993 | ND (< 0.5) | 87 | 24 | 1.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F83A1U | | 9/10/1993 | ND (< 0.5) | 61 | 18 | 1.8 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 6.2 |
| F83A1U | | 12/3/1993 | ND (< 5) | 81 | 17 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | | 3/2/1994 | ND (< 0.5) | 100 | 30 | 5.8 | - | ND (< 0.5) | ND (< 0.5) | 13 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.8 |
| F83A1U | | 6/10/1994 | ND (< 0.5) | 18 | 5.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.64 |
| F83A1U | | 9/7/1994 | ND (< 0.5) | 81 | 27 | 2.8 | - | ND (< 0.5) | ND (< 0.5) | 6.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.8 ; Freon 11 = 0.5 |
| F83A1U | | 12/12/1994 | ND (< 5) | 65 | 24 | ND (< 5) | - | ND (< 5) | - | 11 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | | 3/2/1995 | ND (< 0.5) | 72 | 24 | 2.9 | - | ND (< 0.5) | ND (< 0.5) | 7.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| F83A1U | | 6/5/1995 | ND (< 0.5) | 78 | 29 | 2.7 | - | ND (< 0.5) | ND (< 0.5) | 7.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 ; Freon 11 = 0.51 |
| F83A1U | Dup | 6/5/1995 | ND (< 0.5) | 88 | 33 | 2.8 | - | ND (< 0.5) | ND (< 0.5) | 8.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 ; Freon 11 = 0.51 |
| F83A1U | | 9/7/1995 | ND (< 2.5) | 89 | 34 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 6.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLFM = 2.6 ; MC = 4.8 |
| F83A1U | | 12/8/1995 | ND (< 5) | 71 | 28 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | Dup | 12/8/1995 | ND (< 5) | 76 | 30 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | | 3/6/1996 | ND (< 0.5) | 100 | 33 | 3.3 | 15 | ND (< 0.5) | ND (< 0.5) | 8.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 |
| F83A1U | | 6/5/1996 | ND (< 2.5) | 100 | 38 | 3.6 | 15 | ND (< 2.5) | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 104 ; MC = 3 |
| F83A1U | | 9/12/1996 | ND (< 1.2) | 87 | 27 | 3.6 | 14 | ND (< 1.2) | ND (< 1.2) | 9.8 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 111 ; CHLFM = 1.6 ; MC = 1.3 |
| F83A1U | | 12/13/1996 | ND (< 5) | 51 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | - | 6.1 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F83A1U | | 6/15/2011 | ND (< 0.50) | 68 | 2.8 | 0.76 | 2.5 | ND (< 0.50) | ND (< 0.50) | 4.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F83A1U | | 6/11/2014 | ND (< 0.50) | 66 | 1.7 | 0.83 | 2.4 | ND (< 0.50) | ND (< 0.50) | 8.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F84A1 | | 12/11/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F84A1 | | 4/22/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 7/30/1991 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | Dup | 7/30/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 10/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F84A1 | | 3/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | Dup | 3/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 6/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 9/21/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 12/10/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F84A1 | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F84A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F84A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F84A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F84A1 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F84A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F84A1 | | 12/10/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; MC = 1.3 |
| F84A1 | Dup | 12/10/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; MC = 1.4 |
| F84A1 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F84A1 | | 12/14/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F84A1 | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F85A1 | | 12/11/1990 | 0.2 | 0.5 | 5.7 | 2.6 | 7.9 | 0.8 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 8.6 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 1.1 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F85A1 | | 4/15/1991 | ND (< 0.5) | 1 | 4 | 2 | - | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 6 |
| F85A1 | | 7/24/1991 | ND (< 0.5) | 0.8 | 3.9 | 2.8 | - | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5.8 |
| F85A1 | | 10/8/1991 | ND (< 0.5) | ND (< 0.5) | 4.6 | 3.3 | - | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 4 |
| F85A1 | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | | 3/5/1992 | ND (< 0.5) | ND (< 0.5) | 2.2 | 1.7 | - | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 |
| F85A1 | | 6/8/1992 | ND (< 0.5) | 0.6 | 2.3 | 1.4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| F85A1 | | 9/15/1992 | ND (< 0.5) | 0.8 | 1.9 | 1.4 | - | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F85A1 | Dup | 9/15/1992 | ND (< 0.5) | 0.5 | 1.5 | 1.1 | - | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F85A1 | | 12/11/1992 | ND (< 5) | ND (< 5) | 6.9 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | | 3/10/1993 | ND (< 0.5) | 0.7 | 2.3 | 1.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F85A1 | | 6/8/1993 | ND (< 0.5) | 0.5 | 2.1 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F85A1 | Dup | 6/8/1993 | ND (< 0.5) | ND (< 0.5) | 1.9 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F85A1 | | 9/14/1993 | ND (< 0.5) | 4.6 | 1.4 | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.64 |
| F85A1 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | | 3/8/1994 | ND (< 0.5) | ND (< 0.5) | 0.83 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.57 |
| F85A1 | | 6/6/1994 | ND (< 0.5) | 4.6 | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F85A1 | | 9/6/1994 | ND (< 0.5) | 1.3 | 3.1 | 0.54 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F85A1 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | Dup | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | | 3/3/1995 | ND (< 0.5) | ND (< 0.5) | 0.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F85A1 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | 0.55 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F85A1 | | 9/6/1995 | ND (< 0.5) | 1 | 2.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.58 |
| F85A1 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | 0.58 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F85A1 | Dup | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F85A1 | | 6/5/1996 | ND (< 0.5) | 1.3 | 3.2 | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 0.58 |
| F85A1 | | 9/10/1996 | ND (< 0.5) | 1.2 | 1.4 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F85A1 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F85A1 | | 3/4/1997 | ND (< 0.5) | 1.9 | 2.4 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 ; CHLFM = 0.57 |
| F85A1 | Dup | 3/4/1997 | ND (< 0.5) | 1.9 | 2.1 | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 0.57 |
| F85A1 | | 6/3/1997 | ND (< 0.5) | 2 | 2.7 | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; CHLFM = 0.78 |
| F85A1 | | 9/10/1997 | ND (< 0.5) | 0.99 | 0.94 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 ; MC = 2 |
| F85A1 | | 12/3/1997 | ND (< 0.5) | 0.97 | 0.74 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 88 |
| F85A1 | | 12/10/1998 | ND (< 0.5) | 1.33 | 0.862 | ND (< 0.5) | 1.04 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F85A1 | | 12/9/1999 | ND (< 0.5) | 1.12 | ND (< 0.5) | ND (< 0.5) | 0.806 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F85A1 | | 12/5/2000 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F85A1 | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F85A1 | | 6/25/2003 | ND (< 0.50) | 0.63 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.53 | |
| F85A1 | | 6/22/2005 | ND (< 0.50) | 4.1 | 1.0 | 0.62 | 3.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.4 |
| F85A1 | | 6/13/2007 | 1.1 | 8.6 | 0.75 | 1.1 | 3.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F85A1 | | 6/12/2008 | 1.4 | 8.3 | 0.57 | 0.55 | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F85A1 | | 12/10/2008 | 1.2 | 5.7 | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F85A1 | | 6/11/2009 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F85A1 | | 6/15/2011 | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | 0.84 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F85A1 | | 6/20/2013 | ND (< 0.50) | 5.8 | ND (< 0.50) | ND (< 0.50) | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F86A2 | | 12/11/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F86A2 | | 4/15/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 7/24/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 11/5/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 12/10/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F86A2 | | 3/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 6/8/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 9/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 12/11/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F86A2 | | 6/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F86A2 | | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | Dup | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F86A2 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F86A2 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F86A2 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 86 ; MC = 0.61 |
| F86A2 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| F86A2 | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F86A2 | | 3/9/2007 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F86A2 | | 6/27/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F86A2 | | 12/12/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F86A2 | | 6/11/2009 | ND (< 0.50) | 2.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F87A2 | | 12/11/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F87A2 | Dup | 12/11/1990 | 2 | 5 | 3 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 5.6 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F87A2 | | 4/19/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 7/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 11/6/1991 | 13 | 11 | ND (< 0.5) | ND (< 0.5) | - | 13 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 7.2 | 1,4-DCB = 11 ; CHLBZ = 13 ; CHLFM = 11 ; CT = 12 |
| F87A2 | | 12/5/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F87A2 | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 6/3/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 9/18/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 12/11/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F87A2 | | 3/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 9/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F87A2 | | 3/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | Dup | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F87A2 | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F87A2 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F87A2 | | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F87A2 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F87A2 | | 6/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| F87A2 | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| F87A2 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F87A2 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F87A2 | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F87A2 | | 12/8/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F87A2 | | 6/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2 | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F87A2 | | 6/29/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2 | | 9/30/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2 | | 12/21/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2 | | 2/1/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F87A2R | | 2/1/2012 | ND (< 0.50) | 2.4 | 0.68 | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.86 | ND (< 0.50) | |
| F87A2R | Dup | 2/1/2012 | ND (< 0.50) | 2.4 | 0.69 | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.81 | ND (< 0.50) | |
| F87A2R | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2R | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F87A2R | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F88A1U | | 12/11/1990 | 0.2 | 3.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F88A1U | | 4/11/1991 | 250 | 120 | 43 | ND (< 5) | - | ND (< 5) | ND (< 0.5) | 43 | 8 | ND (< 5) | ND (< 5) | |
| F88A1U | | 5/3/1991 | 210 | 110 | 25 | 4.5 | - | ND (< 0.5) | ND (< 0.5) | 57 | 17 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 7/31/1991 | 88 | 100 | 4.6 | 1.4 | - | ND (< 0.5) | ND (< 0.5) | 22 | 16 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 11/12/1991 | 81 | 92 | 5.3 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 23 | 12 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 12/12/1991 | 89 | 86 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | - | - | ND (< 5) | ND (< 10) | MC = 14 |
| F88A1U | | 3/9/1992 | 38 | 99 | 1.1 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 13 | 9.6 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F88A1U | Dup | 3/9/1992 | 41 | 110 | 1.3 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 15 | 11 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F88A1U | | 6/15/1992 | 26 | 93 | 0.5 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 5.4 | 3.5 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F88A1U | | 9/22/1992 | 20 | 86 | 0.7 | 0.5 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 3.5 | 2.1 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F88A1U | Dup | 9/22/1992 | 21 | 80 | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 3.6 | 2.4 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F88A1U | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F88A1U | | 3/8/1993 | 20 | 44 | 0.9 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 1.8 | 1.3 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 6/9/1993 | 3.1 | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | Dup | 6/9/1993 | 2.3 | 12 | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 9/13/1993 | 5.3 | 24 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.91 | 0.55 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 12/9/1993 | 16 | 28 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F88A1U | | 3/10/1994 | 9.7 | 38 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 3 | 2.6 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 6/2/1994 | 8.8 | 34 | ND (< 0.5) | 0.66 | - | ND (< 0.5) | ND (< 0.5) | 3.2 | 2.4 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | Dup | 6/2/1994 | 8.1 | 33 | ND (< 0.5) | 0.63 | - | ND (< 0.5) | ND (< 0.5) | 3 | 2.4 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 9/9/1994 | 5.8 | 35 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 5.5 | 4.7 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 12/13/1994 | 12 | 87 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 41 | 12 | ND (< 5) | ND (< 10) | |
| F88A1U | | 3/7/1995 | 17 | 49 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 7.6 | 5 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 6/7/1995 | 5.5 | 42 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 1.9 | 1.1 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | Dup | 6/7/1995 | 5 | 39 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 1.8 | 1 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 9/6/1995 | 4 | 28 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 3 | 2.2 | ND (< 0.5) | ND (< 0.5) | |
| F88A1U | | 12/7/1995 | 7.5 | 46 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 5 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F88A1U | | 3/6/1996 | 6.2 | 39 | 0.86 | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.7 | 0.95 | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| F88A1U | | 6/10/1996 | 5.1 | 29 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 3 | 2 | ND (< 1) | ND (< 1) | CBMA = 117 ; MC = 0.54 |
| F88A1U | | 9/11/1996 | 21 | 42 | 8.1 | 2.4 | 12 | ND (< 0.5) | ND (< 0.5) | 15 | 3.6 | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 0.92 ; MC = 0.52 |
| F88A1U | | 12/11/1996 | 54 | 39 | 6.9 | ND (< 5) | 7.3 | ND (< 5) | - | 15 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F88A1U | | 3/5/1997 | 43 | 35 | 2.7 | 1.3 | 1.9 | ND (< 1) | ND (< 1) | 3.5 | 1.2 | ND (< 1) | ND (< 1) | CBMA = 89 |
| F88A1U | | 6/4/1997 | 23 | 24 | 2.5 | 1.6 | 1 | ND (< 1) | ND (< 1) | 3.6 | 1.2 | ND (< 1) | ND (< 1) | CBMA = 105 |
| F88A1U | | 9/11/1997 | 34 | 31 | 4.7 | 1.8 | 4.7 | ND (< 1) | ND (< 1) | 8.1 | 1.6 | ND (< 1) | ND (< 1) | CBMA = 109 |
| F88A1U | | 12/4/1997 | 150 | 36 | 8.7 | 2.9 | 8.5 | ND (< 0.5) | ND (< 0.5) | 8.1 | 1.6 | ND (< 0.5) | ND (< 0.5) | CBMA = 90 |
| F88A1U | | 6/5/1998 | 13 | 8.7 | 1.1 | 2.8 | 4.1 | ND (< 0.5) | ND (< 0.5) | 0.86 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F88A1U | Dup | 6/5/1998 | 13 | 8.3 | 1.1 | 2.6 | 3.8 | ND (< 0.5) | ND (< 0.5) | 0.83 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F88A1U | | 12/11/1998 | 25.3 | 14.4 | 1.62 | 2.56 | 5.57 | ND (< 0.5) | ND (< 0.5) | 3.6 | 0.819 | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F88A1U | | 6/9/1999 | 19.5 | 11.0 | 1.45 | 1.98 | 3.71 | ND (< 0.500) | ND (< 0.500) | 1.46 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F88A1U | | 12/14/1999 | 106 | 35.6 | 8.19 | ND (< 5) | 9.31 | ND (< 5) | ND (< 5) | 6.96 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F88A1U | | 6/8/2000 | 40 | 17 | 1.9 | 2.1 | 3.5 | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 12/8/2000 | 58 | 25 | 3.4 | 1.7 | 6.4 | ND (< 1.0) | ND (< 1.0) | 4.2 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F88A1U | | 6/27/2003 | 160 | 23 | 1.3 | 1.9 | 2.8 | ND (< 1.0) | ND (< 1.0) | 6.4 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F88A1U | | 6/20/2005 | 49 | 18 | 0.77 | 1.4 | 2.0 | ND (< 0.50) | ND (< 0.50) | 6.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 6/20/2007 | 87 | 17 | 1.3 | 0.68 | 2.2 | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 6/10/2009 | 390 | 36 | 2.9 | ND (< 2.5) | 6.6 | ND (< 2.5) | ND (< 2.5) | 9.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F88A1U | | 7/11/2011 | 140 | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 2.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F88A1U | | 9/11/2013 | 290 | 38 | 6.1 | 1.2 | 6.0 | ND (< 0.50) | ND (< 0.50) | 11 | 0.79 | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 11/13/2013 | 200 | 38 | 2.7 | ND (< 2.5) | 3.5 | ND (< 2.5) | ND (< 2.5) | 13 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F88A1U | | 2/25/2014 | 270 | 50 | 6.7 | 1.6 | 8.9 | ND (< 0.50) | ND (< 0.50) | 15 | 0.95 | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 6/10/2014 | 70 | 18 | 1.0 | 0.51 | 1.5 | ND (< 0.50) | ND (< 0.50) | 7.4 | 0.73 | ND (< 0.50) | ND (< 0.50) | |
| F88A1U | | 8/13/2014 | 72 | 21 | 1.1 | 0.66 | 1.9 | ND (< 0.50) | ND (< 0.50) | 11 | 0.93 | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F89A | | 12/11/1990 | 26 | 42 | 7.1 | 2.5 | 9 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F89A | | 4/15/1991 | ND (< 0.5) | 20 | 1 | 1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 5/3/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| F89A | | 7/31/1991 | ND (< 0.5) | 5.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 10/10/1991 | ND (< 0.5) | 3.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 12/12/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | - | ND (< 5) | ND (< 10) | MC = 14 |
| F89A | Dup | 12/12/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | - | ND (< 5) | ND (< 10) | |
| F89A | | 3/9/1992 | ND (< 0.5) | 4.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 6/15/1992 | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 9/22/1992 | ND (< 0.5) | 29 | 1.8 | 1.4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 12/16/1992 | ND (< 5) | 27 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F89A | | 3/12/1993 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 6/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 9/13/1993 | ND (< 0.5) | 24 | 0.9 | 0.9 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 12/9/1993 | ND (< 5) | 6.6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F89A | | 3/10/1994 | ND (< 0.5) | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 6/2/1994 | ND (< 0.5) | 6.1 | 0.72 | 0.92 | - | ND (< 0.5) | ND (< 0.5) | 0.83 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 9/9/1994 | ND (< 0.5) | 12 | 0.66 | 0.87 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 12/13/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F89A | Dup | 12/13/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F89A | | 3/7/1995 | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 6/6/1995 | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 9/5/1995 | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 12/7/1995 | ND (< 5) | 7 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F89A | | 3/5/1996 | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 6/6/1996 | ND (< 0.5) | 2.6 | 1 | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F89A | | 9/10/1996 | ND (< 0.5) | 4.7 | 1.1 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F89A | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F89A | | 3/6/1997 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| F89A | | 6/6/1997 | ND (< 0.5) | 0.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F89A | Dup | 6/6/1997 | ND (< 0.5) | 0.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F89A | | 9/9/1997 | ND (< 0.5) | 6 | 1.8 | 0.68 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F89A | Dup | 9/9/1997 | ND (< 0.5) | 5.8 | 1.7 | 0.64 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F89A | | 12/4/1997 | ND (< 0.5) | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| F89A | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 118 |
| F89A | | 12/11/1998 | ND (< 0.5) | 0.918 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 120 |
| F89A | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F89A | | 12/14/1999 | ND (< 0.5) | 2.37 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F89A | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F89A | | 12/8/2000 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F89A | | 11/13/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F89A | | 2/25/2014 | ND (< 0.50) | 0.56 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F89A | | 6/10/2014 | ND (< 0.50) | 14 | 0.91 | 0.57 | 2.1 | ND (< 0.50) | ND (< 0.50) | 4.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F89A | | 8/13/2014 | ND (< 0.50) | 12 | 0.71 | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | 3.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F90A1U | | 12/12/1990 | 0.2 | 0.5 | 0.5 | 1.3 | 0.3 | 0.3 | 0.5 | 5 | 2 | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 5 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 2 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F90A1U | Dup | 12/12/1990 | 0.2 | 0.5 | 0.5 | 1.3 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F90A1U | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | Dup | 4/16/1991 | 0.2 | 0.5 | 0.3 | 1.1 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F90A1U | Dup | 4/16/1991 | 0.2 | 0.5 | 0.3 | 1.1 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F90A1U | | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | Dup | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 10/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 12/12/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | - | ND (< 5) | ND (< 10) | |
| F90A1U | | 3/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | Dup | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 9/16/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 12/7/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F90A1U | | 3/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | Dup | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F90A1U | | 3/4/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 9/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.83 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F90A1U | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.89 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F90A1U | | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F90A1U | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.96 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F90A1U | Dup | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F90A1U | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F90A1U | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 0.81 |
| F90A1U | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.76 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 0.99 |
| F90A1U | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 ; CHLFM = 1.5 |
| F90A1U | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 90 ; MC = 0.61 |
| F90A1U | | 6/5/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 ; CHLFM = 0.87 |
| F90A1U | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.02 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F90A1U | | 6/9/1999 | ND (< 0.500) | 0.599 | ND (< 0.500) | 1.66 | 0.664 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F90A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | Dup | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.647 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F90A1U | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F90A1U | | 12/8/2000 | ND (< 0.50) | 0.52 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F90A1U | | 6/27/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F90A1U | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F90A1U | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F91A1 | | 12/12/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F91A1 | | 4/18/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 10/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 12/12/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F91A1 | | 3/11/1992 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 9/17/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 12/8/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F91A1 | | 3/12/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F91A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F91A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F91A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F91A1 | | 12/20/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F91A1 | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F91A1 | | 12/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F91A1 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F91A1 | Dup | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F91A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F91A1 | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F92A2 | | 12/13/1990 | 0.2 | 5.8 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F92A2 | | 12/13/1990 | - | - | - | - | - | - | - | - | - | - | - | |
| F92A2 | | 4/22/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 7/24/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 10/31/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 12/11/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F92A2 | | 3/6/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 6/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 9/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 12/17/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F92A2 | | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | Dup | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F92A2 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F92A2 | | 12/13/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F92A2 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | Dup | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F92A2 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F92A2 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F92A2 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F92A2 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| F92A2 | Dup | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| F92A2 | | 12/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F92A2 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F92A2 | | 12/9/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F92A2 | | 6/9/1999 | 0.557 | 0.975 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F92A2 | | 12/8/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F92A2 | | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | Dup | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F92A2 | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F92A2 | | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/10/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/16/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 7/11/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/11/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/17/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F92A2 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F93A1U | | 12/20/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F93A1U | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F93A1U | Dup | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F93A1U | | 7/30/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F93A1U | | 3/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F93A1U | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F93A1U | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F93A1U | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| F93A1U | | 12/6/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F93A1U | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F93A1U | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F93A1U | | 6/4/1996 | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F93A1U | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F93A1U | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 84 |
| | | | | | | | | | | | | | | |
| F94A2 | | 12/20/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F94A2 | | 4/16/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F94A2 | | 7/30/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| F95A | | 2/6/1991 | 0.2 | 0.8 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F95A | | 4/12/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 7/31/1991 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 10/14/1991 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 12/11/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | | 3/6/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 6/12/1992 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 10/12/1992 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 12/15/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | | 6/14/1993 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 12/2/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | | 6/9/1994 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F95A | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | Dup | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | | 6/4/1996 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F95A | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F95A | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| F95A | | 12/8/1999 | ND (< 0.5) | 1.93 | 0.526 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F95A | | 6/20/2001 | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F95A | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.85 |
| F95A | | 6/21/2005 | ND (< 0.50) | 0.69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F95A | | 6/20/2007 | ND (< 0.50) | 0.53 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F95A | | 6/11/2009 | ND (< 0.50) | 0.54 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F95A | | 6/16/2011 | ND (< 0.50) | 0.63 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F95A | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F96A2D | | 2/6/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F96A2D | | 2/6/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F96A2D | | 4/12/1991 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1 |
| F96A2D | | 7/30/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F96A2D | | 12/11/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F97A | | 12/18/1990 | 3.7 | 5 | 9.7 | 22 | 12 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2.7 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| F97A | | 12/18/1990 | 0.2 | 0.5 | 19 | 40 | 19 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F97A | | 4/22/1991 | ND (< 0.5) | ND (< 0.5) | 18 | 41 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F97A | Dup | 4/22/1991 | ND (< 0.5) | ND (< 0.5) | 18 | 38 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F97A | | 7/26/1991 | ND (< 0.5) | ND (< 0.5) | 17 | 39 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F97A | Dup | 7/26/1991 | ND (< 0.5) | ND (< 0.5) | 18 | 38 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F97A | | 10/3/1991 | ND (< 0.5) | ND (< 0.5) | 16 | 38 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F97A | | 12/16/1991 | ND (< 5) | ND (< 5) | 19 | 45 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F97A | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | 14 | 44 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| F97A | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | 9.9 | 36 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F97A | | 10/12/1992 | ND (< 0.5) | ND (< 0.5) | 10 | 34 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 12/7/1992 | ND (< 5) | ND (< 5) | 6.4 | 33 | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F97A | | 3/8/1993 | ND (< 0.5) | 1.5 | 6.1 | 38 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| F97A | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | 4.8 | 28 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | 5.7 | 34 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | 32 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F97A | | 3/7/1994 | ND (< 0.5) | ND (< 0.5) | 3.1 | 25 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 6/13/1994 | ND (< 0.5) | ND (< 0.5) | 4.1 | 38 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 9/2/1994 | ND (< 0.5) | ND (< 0.5) | 3.3 | 32 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 12/13/1994 | ND (< 5) | ND (< 5) | ND (< 5) | 21 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F97A | | 3/6/1995 | ND (< 0.5) | ND (< 0.5) | 2.2 | 26 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | 1.7 | 22 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | 3 | 26 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | 16 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F97A | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | 1.9 | 21 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F97A | | 6/7/1996 | ND (< 0.5) | ND (< 0.5) | 2.5 | 27 | 4.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F97A | | 9/11/1996 | ND (< 0.5) | ND (< 0.5) | 3.2 | 24 | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F97A | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | 24 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F97A | | 3/5/1997 | ND (< 0.5) | ND (< 0.5) | 2.8 | 27 | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 119 |
| F97A | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | 3.3 | 26 | 4.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 0.55 |
| F97A | | 9/10/1997 | ND (< 0.5) | ND (< 0.5) | 2 | 22 | 2.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F97A | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | 0.7 | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F97A | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | 0.88 | 8.3 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F97A | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | 3.13 | 22.7 | 4.02 | ND (< 0.5) | ND (< 0.5) | 4.31 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F97A | | 6/10/1999 | ND (< 1.00) | ND (< 1.00) | 8.51 | 29.0 | 8.95 | ND (< 1.00) | ND (< 1.00) | 19.3 | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | |
| F97A | | 12/13/1999 | ND (< 2.5) | ND (< 2.5) | 40.5 | 55.6 | 35 | ND (< 2.5) | ND (< 2.5) | 83.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F97A | | 6/6/2000 | ND (< 2.5) | ND (< 2.5) | 46 | 50 | 31 | ND (< 2.5) | ND (< 2.5) | 100 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F97A | | 12/7/2000 | ND (< 1.0) | ND (< 1.0) | 68 | 52 | 40 | ND (< 1.0) | ND (< 1.0) | 120 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 2.8 |
| F97A | Dup | 12/7/2000 | ND (< 1.0) | ND (< 1.0) | 67 | 52 | 39 | ND (< 1.0) | ND (< 1.0) | 120 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F97A | | 6/20/2001 | ND (< 1.0) | 1.2 | 46 | 35 | 22 | ND (< 1.0) | ND (< 1.0) | 90 | 1.7 | ND (< 4.0) | ND (< 1.0) | |
| F97A | | 6/26/2002 | ND (< 1.0) | 2.2 | 48 | 22 | 34 | - | ND (< 1.0) | 110 | - | 1.0 | - | |
| F97A | | 6/25/2003 | ND (< 1.0) | 1.9 | 80 | 29 | 39 | ND (< 1.0) | ND (< 1.0) | 96 | 2.1 | 2.1 | ND (< 1.0) | |
| F97A | | 6/21/2005 | ND (< 1.0) | 15 | 120 | 21 | 35 | ND (< 1.0) | ND (< 1.0) | 120 | 2.1 | 40 | ND (< 1.0) | CHLFM = 1.1 |
| F97A | | 7/5/2007 | ND (< 1.0) | 17 | 62 | 13 | 34 | ND (< 1.0) | ND (< 1.0) | 82 | 1.4 | 45 | ND (< 1.0) | |
| F97A | | 6/11/2009 | ND (< 0.50) | 35 | 52 | 11 | 28 | ND (< 0.50) | ND (< 0.50) | 65 | 0.96 | 72 | ND (< 0.50) | |
| F97A | | 6/9/2010 | ND (< 0.50) | 40 | 44 | 10 | 23 | ND (< 0.50) | ND (< 0.50) | 57 | 0.75 | 66 | ND (< 0.50) | |
| F97A | | 6/15/2011 | ND (< 0.50) | 97 | 37 | 13 | 26 | ND (< 0.50) | ND (< 0.50) | 59 | 0.90 | 88 | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F97A | | 6/13/2012 | ND (< 0.50) | 200 | 35 | 16 | 21 | ND (< 0.50) | ND (< 0.50) | 62 | 0.65 | 79 | ND (< 0.50) | |
| F97A | | 6/19/2013 | ND (< 0.50) | 360 | 23 | 16 | 18 | ND (< 0.50) | ND (< 0.50) | 53 | 0.63 | 60 | ND (< 0.50) | |
| F97A | | 6/11/2014 | ND (< 0.50) | 310 | 25 | 18 | 22 | ND (< 0.50) | ND (< 0.50) | 56 | 0.72 | 64 | 1.8 | |
| | | | | | | | | | | | | | | |
| F98A | | 11/26/1990 | 2 | 43 | 73 | 27 | 49 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 3.4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F98A | | 12/7/1990 | 2 | 28 | 61 | 22 | 30 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 3.1 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F98A | | 4/17/1991 | ND (< 0.5) | 50 | 57 | 33 | ND (< 1) | 0.5 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.2 |
| F98A | | 7/25/1991 | ND (< 0.5) | 51 | 60 | 28 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F98A | | 10/3/1991 | ND (< 0.5) | 58 | 59 | 30 | - | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.5 |
| F98A | | 12/5/1991 | ND (< 5) | 54 | 78 | 34 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F98A | | 3/9/1992 | ND (< 0.5) | 40 | 44 | 32 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| F98A | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F98A | | 10/13/1992 | ND (< 0.5) | 55 | 66 | 33 | ND (< 2.5) | 0.6 | ND (< 0.5) | 1.7 | ND (< 0.5) | 1.9 | ND (< 0.5) | CHLFM = 1.8 |
| F98A | | 12/14/1992 | ND (< 5) | 56 | 66 | 32 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F98A | | 3/12/1993 | ND (< 0.5) | 33 | 39 | 27 | - | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| F98A | | 6/10/1993 | ND (< 0.5) | 35 | 42 | 29 | - | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F98A | | 9/14/1993 | ND (< 0.5) | 28 | 53 | 31 | - | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | 0.98 | ND (< 0.5) | CHLFM = 1.3 |
| F98A | | 12/7/1993 | ND (< 5) | 11 | 8.4 | 11 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F98A | | 3/10/1994 | ND (< 0.5) | 26 | 38 | 26 | - | ND (< 0.5) | ND (< 0.5) | 0.81 | ND (< 0.5) | 0.66 | ND (< 0.5) | CHLFM = 1.2 |
| F98A | | 6/13/1994 | ND (< 0.5) | 28 | 57 | 34 | - | ND (< 0.5) | ND (< 0.5) | 0.86 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| F98A | | 9/2/1994 | ND (< 0.5) | 27 | 40 | 35 | - | 0.71 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| F98A | Dup | 9/2/1994 | ND (< 0.5) | 27 | 40 | 33 | - | ND (< 0.5) | ND (< 0.5) | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| F98A | | 12/13/1994 | ND (< 5) | 28 | 34 | 28 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F98A | | 3/6/1995 | ND (< 0.5) | 28 | 49 | 31 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | 0.84 | ND (< 0.5) | CHLFM = 1.2 |
| F98A | | 6/8/1995 | ND (< 0.5) | 13 | 7.6 | 12 | - | ND (< 0.5) | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.65 |
| F98A | | 9/6/1995 | ND (< 0.5) | 42 | 49 | 37 | - | 0.96 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1,1,2,2-TCA = 0.78 ; CHLFM = 1.6 |
| F98A | | 12/7/1995 | ND (< 5) | 40 | 46 | 35 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F98A | | 3/5/1996 | ND (< 0.5) | 52 | 50 | 37 | 36 | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | 1.4 | ND (< 0.5) | CHLFM = 1.8 |
| F98A | | 6/10/1996 | ND (< 2.5) | 76 | 57 | 44 | 40 | ND (< 2.5) | ND (< 2.5) | 2.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 114 |
| F98A | | 9/11/1996 | ND (< 2.5) | 86 | 56 | 73 | 50 | 2.9 | ND (< 2.5) | 48 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 107 ; CHLFM = 3.8 ; MC = 3.5 |
| F98A | | 12/11/1996 | ND (< 5) | 83 | 56 | 97 | 45 | ND (< 5) | - | 160 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F98A | | 3/5/1997 | ND (< 2.5) | 80 | 80 | 86 | 66 | 2.9 | ND (< 2.5) | 220 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 109 ; CHLFM = 5.5 |
| F98A | | 6/4/1997 | ND (< 1) | 28 | 37 | 27 | 17 | 2.6 | ND (< 1) | 110 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 114 ; CHLFM = 3.3 |
| F98A | | 9/11/1997 | ND (< 2.5) | 24 | 40 | 20 | 8.3 | 4.7 | ND (< 2.5) | 170 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 108 ; CHLFM = 6.6 |
| F98A | | 12/5/1997 | ND (< 1.2) | 25 | 27 | 16 | 15 | 1.5 | ND (< 1.2) | 150 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 99 ; CHLFM = 2.6 |
| F98A | | 6/5/1998 | ND (< 2.5) | 18 | 51 | 24 | 26 | ND (< 2.5) | ND (< 2.5) | 150 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 115 |
| F98A | | 12/11/1998 | ND (< 10) | 42.1 | 194 | 28.2 | 52.3 | ND (< 10) | ND (< 10) | 289 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 100 |
| F98A | | 6/10/1999 | ND (< 50.0) | 65.0 | 448 | ND (< 50.0) | 69.9 | ND (< 50.0) | ND (< 50.0) | 271 | ND (< 50.0) | 79.6 | ND (< 50.0) | |
| F98A | Dup | 6/10/1999 | ND (< 12.5) | 67.1 | 459 | 20.2 | 78.6 | ND (< 12.5) | ND (< 12.5) | 275 | ND (< 12.5) | 86.6 | ND (< 12.5) | |
| F98A | | 12/13/1999 | ND (< 10) | 84.4 | 487 | 21.1 | 89.1 | ND (< 10) | ND (< 10) | 315 | ND (< 10) | 115 | ND (< 10) | |
| F98A | | 6/8/2000 | ND (< 5.0) | 140 | 330 | 10 | 60 | ND (< 5.0) | ND (< 5.0) | 200 | ND (< 5.0) | 180 | ND (< 5.0) | |
| F98A | | 12/7/2000 | ND (< 10) | 70 | 270 | 10 | 45 | ND (< 10) | ND (< 10) | 170 | ND (< 10) | 160 | ND (< 10) | |
| F98A | | 6/20/2001 | ND (< 10) | 55 | 170 | ND (< 10) | 29 | ND (< 10) | ND (< 10) | 110 | ND (< 10) | 260 | ND (< 10) | |
| F98A | | 6/25/2003 | ND (< 1.0) | 58 | 88 | 11 | 19 | ND (< 1.0) | ND (< 1.0) | 53 | ND (< 1.0) | 94 | ND (< 1.0) | |
| F98A | | 6/21/2005 | ND (< 0.50) | 75 | 44 | 9.9 | 20 | ND (< 0.50) | ND (< 0.50) | 53 | 0.66 | 73 | ND (< 0.50) | |
| F98A | | 7/5/2007 | ND (< 2.5) | 330 | 22 | 5.4 | 13 | ND (< 2.5) | ND (< 2.5) | 38 | ND (< 2.5) | 71 | ND (< 2.5) | |
| F98A | | 6/11/2009 | ND (< 10) | 870 | 14 | ND (< 10) | 13 | ND (< 10) | ND (< 10) | 38 | ND (< 10) | 41 | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F98A | | 6/9/2010 | ND (< 10) | 1,000 | 14 | 12 | 12 | ND (< 10) | ND (< 10) | 39 | ND (< 10) | 33 | ND (< 10) | |
| F98A | | 6/15/2011 | ND (< 5.0) | 1,200 | 12 | 15 | 13 | ND (< 5.0) | ND (< 5.0) | 39 | ND (< 5.0) | 33 | ND (< 5.0) | |
| F98A | | 6/13/2012 | ND (< 5.0) | 1,200 | 8.3 | 16 | 10 | ND (< 5.0) | ND (< 5.0) | 38 | ND (< 5.0) | 20 | ND (< 5.0) | |
| F98A | | 6/18/2013 | ND (< 5.0) | 990 | 6.2 | 15 | 9.3 | ND (< 5.0) | ND (< 5.0) | 36 | ND (< 5.0) | 12 | ND (< 5.0) | |
| F98A | | 6/11/2014 | ND (< 5.0) | 800 | 5.5 | 14 | 8.6 | ND (< 5.0) | ND (< 5.0) | 250 | ND (< 5.0) | 13 | 21 | |
| | | | | | | | | | | | | | | |
| F101B | | 11/21/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |
| F101B | | 12/17/1990 | 0.2 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.9 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.9 |
| F101B | | 2/6/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.9 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F101B | | 2/6/1991 | ND (< 0.3) | 0.8 | ND (< 0.3) | ND (< 0.4) | ND (< 0.3) | ND (< 0.3) | ND (< 1) | - | - | ND (< 1) | ND (< 0.3) | CHLFM = 1.3 |
| F101B | | 4/22/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | Dup | 4/22/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F101B | | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 10/8/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 12/5/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F101B | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 6/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 9/22/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 12/9/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F101B | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F101B | | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F101B | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F101B | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F101B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F101B | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F101B | | 12/8/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| F102B | | 11/27/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F102B | | 12/12/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F102B | | 2/8/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F102B | | 4/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | Dup | 4/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 10/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 12/12/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | - | ND (< 5) | ND (< 10) | |
| F102B | | 3/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 6/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 9/17/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 12/9/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F102B | | 6/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F102B | Dup | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F102B | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F102B | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F102B | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F102B | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F102B | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F103B | | 11/27/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F103B | | 12/20/1990 | 0.2 | 93 | 2.4 | 1.2 | 1.8 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.5 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F103B | | 1/14/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F103B | | 2/15/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.5 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| F103B | | 4/10/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 10/9/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 12/11/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | | 3/4/1992 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 9/22/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 12/10/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | | 3/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 6/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F103B | | 9/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | | 3/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 6/7/1994 | ND (< 0.5) | 0.51 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F103B | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | Dup | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F103B | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F103B | | 12/8/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F103B | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F103B | | 12/15/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F103B | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F106A1 | | 9/22/1992 | ND (< 25) | 150 | 4,600 | 260 | ND (< 100) | ND (< 25) | ND (< 25) | 2,900 | ND (< 25) | 570 | ND (< 25) | |
| F106A1 | | 10/13/1992 | ND (< 25) | 360 | 9,200 | 620 | ND (< 120) | ND (< 25) | ND (< 25) | 6,600 | ND (< 25) | 1,800 | ND (< 25) | Acetone = 10,000 ; MC = 55 |
| F106A1 | | 12/16/1992 | ND (< 5) | 770 | 11,000 | 1,100 | 80 | ND (< 5) | - | - | 80 | 1,500 | ND (< 10) | 1,1,2-TCA = 5.1 ; MC = 110 |
| F106A1 | | 6/8/1993 | ND (< 10) | 450 | 1,500 | 210 | ND (< 50) | ND (< 10) | ND (< 10) | 1,700 | ND (< 10) | 330 | ND (< 10) | Freon 11 = 14 |
| F106A1 | | 12/13/1993 | ND (< 25) | 730 | 4,400 | 230 | - | ND (< 25) | - | 2,800 | ND (< 25) | 860 | ND (< 50) | |
| F106A1 | | 6/3/1994 | ND (< 10) | 930 | 3,100 | 54 | ND (< 10) | ND (< 10) | ND (< 10) | 1,100 | ND (< 10) | 1,500 | ND (< 10) | |
| F106A1 | | 12/12/1994 | ND (< 5) | 300 | 510 | 22 | - | ND (< 5) | - | 280 | ND (< 5) | 420 | ND (< 10) | |
| F106A1 | | 6/9/1995 | 1 | 53 | 56 | 11 | - | ND (< 0.5) | ND (< 0.5) | 57 | ND (< 0.5) | 11 | ND (< 0.5) | CHLFM = 1.8 ; Freon 11 = 0.75 |
| F106A1 | | 12/8/1995 | ND (< 5) | 53 | 70 | 15 | - | ND (< 5) | - | 51 | ND (< 5) | 48 | ND (< 10) | |
| F106A1 | | 6/7/1996 | 2.1 | 36 | 50 | 14 | 34 | ND (< 1) | ND (< 1) | 31 | ND (< 1) | 28 | ND (< 1) | CBMA = 109 ; CHLFM = 4.5 ; Freon 11 = 7 ; MC = 1.4 |
| F106A1 | | 12/13/1996 | ND (< 5) | 18 | 27 | 6.6 | 13 | ND (< 5) | - | 21 | ND (< 5) | 15 | ND (< 10) | |
| F106A1 | Dup | 12/13/1996 | ND (< 5) | 18 | 29 | 7.1 | 14 | ND (< 5) | - | 23 | ND (< 5) | 16 | ND (< 10) | |
| F106A1 | | 6/5/1997 | 1.4 | 14 | 22 | 6.1 | 11 | ND (< 1) | ND (< 1) | 11 | ND (< 1) | 10 | ND (< 1) | CBMA = 93 ; CHLFM = 1.4 ; Freon 11 = 2.5 |
| F106A1 | | 12/10/1997 | ND (< 1) | 3.2 | 4.5 | 2.2 | 1.9 | ND (< 1) | ND (< 1) | 4.9 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 103 ; MC = 2.8 |
| F106A1 | | 6/5/1998 | ND (< 0.5) | 5.5 | 11 | 4 | 13 | ND (< 0.5) | ND (< 0.5) | 6.6 | ND (< 0.5) | 3.7 | ND (< 0.5) | CBMA = 105 ; CHLFM = 1.4 ; Freon 11 = 0.53 |
| F106A1 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F106A1 | | 6/8/1999 | ND (< 0.500) | 6.65 | 7.68 | 2.95 | 12.9 | ND (< 0.500) | ND (< 0.500) | 6.14 | ND (< 0.500) | 1.40 | ND (< 0.500) | |
| F106A1 | | 12/14/1999 | ND (< 0.5) | 7.52 | 6.51 | 3.83 | 12.6 | ND (< 0.5) | ND (< 0.5) | 8.76 | ND (< 0.5) | 1.66 | ND (< 0.5) | |
| F106A1 | | 6/6/2000 | ND (< 0.50) | 6.2 | 6.6 | 3.7 | 15 | ND (< 0.50) | ND (< 0.50) | 5.4 | ND (< 0.50) | 1.7 | ND (< 0.50) | |
| F106A1 | | 12/6/2000 | ND (< 0.50) | 10 | 6.1 | 3.3 | 24 | ND (< 0.50) | ND (< 0.50) | 7.0 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F106A1 | | 6/20/2001 | ND (< 0.50) | 14 | 6.4 | 2.8 | 30 | ND (< 0.50) | ND (< 0.50) | 7.0 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F106A1 | | 6/24/2003 | 2.3 | 11 | 4.0 | 3.0 | 35 | ND (< 0.50) | ND (< 0.50) | 8.2 | ND (< 0.50) | 1.3 | 0.73 | |
| F106A1 | | 6/22/2005 | 14 | 15 | 3.0 | 10 | 16 | ND (< 0.50) | ND (< 0.50) | 3.4 | ND (< 0.50) | 2.0 | ND (< 0.50) | |
| F106A1 | | 6/20/2007 | 11 | 11 | 2.0 | 11 | 10 | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | 1.6 | ND (< 0.50) | |
| F106A1 | | 6/10/2009 | 15 | 17 | 2.9 | 3.6 | 16 | ND (< 0.50) | ND (< 0.50) | 5.0 | ND (< 0.50) | 0.83 | 1.3 | |
| F106A1 | | 6/14/2011 | 18 | 23 | 1.6 | 3.2 | 21 | ND (< 0.50) | ND (< 0.50) | 5.9 | ND (< 0.50) | 1.4 | 0.85 | |
| F106A1 | | 6/19/2013 | 20 | 23 | 1.3 | 4.0 | 31 | ND (< 0.50) | ND (< 0.50) | 10 | ND (< 0.50) | 0.82 | 1.0 | |
| | | | | | | | | | | | | | | |
| F107A2 | | 9/23/1992 | ND (< 10) | ND (< 10) | 2,500 | 180 | ND (< 50) | ND (< 10) | ND (< 10) | 2,200 | ND (< 10) | 56 | ND (< 10) | Benzene = 92 ; MC = 10 |
| F107A2 | | 10/13/1992 | ND (< 5) | 28 | 2,600 | 380 | ND (< 25) | 6 | ND (< 5) | 2,400 | ND (< 5) | 210 | ND (< 5) | Acetone = 2,900 ; Freon 11 = 26 ; MC = 38 |
| F107A2 | | 12/16/1992 | ND (< 5) | 29 | 3,000 | 470 | 11 | 10 | - | - | 11 | 140 | ND (< 10) | MC = 22 |
| F107A2 | | 6/8/1993 | ND (< 5) | 11 | 750 | 170 | ND (< 25) | ND (< 5) | ND (< 5) | 1,400 | ND (< 5) | 76 | ND (< 5) | MC = 30 |
| F107A2 | | 12/13/1993 | ND (< 10) | 19 | 630 | 160 | - | ND (< 10) | - | 1,300 | ND (< 10) | 97 | ND (< 20) | MC = 28 |
| F107A2 | Dup | 12/13/1993 | ND (< 10) | 19 | 540 | 150 | - | ND (< 10) | - | 1,200 | ND (< 10) | 100 | ND (< 20) | MC = 26 |
| F107A2 | | 6/3/1994 | ND (< 5) | 24 | 580 | 120 | - | ND (< 5) | ND (< 5) | 920 | ND (< 5) | 100 | ND (< 5) | MC = 12 |
| F107A2 | | 12/12/1994 | ND (< 50) | 230 | 1,000 | ND (< 50) | - | ND (< 50) | - | 490 | ND (< 50) | 490 | ND (< 100) | |
| F107A2 | | 6/9/1995 | ND (< 2.5) | 64 | 300 | 33 | - | ND (< 2.5) | ND (< 2.5) | 250 | ND (< 2.5) | 67 | ND (< 2.5) | CHLFM = 3.7 ; Freon 11 = 6.3 |
| F107A2 | | 12/8/1995 | ND (< 5) | 32 | 170 | 28 | - | ND (< 5) | - | 170 | ND (< 5) | 32 | ND (< 10) | |
| F107A2 | | 6/7/1996 | ND (< 1) | 22 | 88 | 27 | 28 | 2 | ND (< 1) | 120 | ND (< 1) | 13 | ND (< 1) | 1,2-DCPA = 1 ; CBMA = 108 ; CHLFM = 9.6 ; Freon 11 = 4.8 ; MC = 1.6 |
| F107A2 | | 12/13/1996 | ND (< 5) | 14 | 59 | 21 | 16 | ND (< 5) | - | 110 | ND (< 5) | 5 | ND (< 10) | |
| F107A2 | | 6/9/1997 | ND (< 1.2) | 2.5 | 4.7 | 2.7 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | 13 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 108 ; MC = 6.7 |
| F107A2 | Dup | 6/9/1997 | ND (< 1.2) | 1.3 | 4.4 | 2.2 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | 12 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 104 |
| F107A2 | | 12/10/1997 | ND (< 0.5) | 3.4 | 16 | 8.5 | 7.7 | ND (< 0.5) | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 ; CHLFM = 0.65 ; Freon 11 = 1.9 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F107A2 | | 6/5/1998 | ND (< 0.5) | 0.68 | 0.82 | ND (< 0.5) | 0.77 | ND (< 0.5) | ND (< 0.5) | 7.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F107A2 | | 12/8/1998 | ND (< 0.5) | 1.41 | 10.5 | ND (< 0.5) | 4.87 | 4.64 | ND (< 0.5) | 9.13 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 ; Freon 11 = 0.918 |
| F107A2 | | 6/8/1999 | ND (< 0.500) | 2.53 | 8.18 | 4.34 | 3.53 | ND (< 0.500) | ND (< 0.500) | 7.55 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F107A2 | | 12/14/1999 | ND (< 0.5) | 1.63 | 23.5 | 10.2 | 14.1 | ND (< 0.5) | ND (< 0.5) | 4.72 | ND (< 0.5) | 0.817 | ND (< 0.5) | CHLFM = 0.786 ; Freon 11 = 2.54 |
| F107A2 | | 6/7/2000 | ND (< 0.50) | 1.0 | 17 | 7.3 | 5.6 | ND (< 0.50) | ND (< 0.50) | 6.1 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 0.92 ; Freon 11 = 0.64 |
| F107A2 | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 8.6 | 9.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | Freon 11 = 2.0 |
| F107A2 | | 6/20/2001 | ND (< 0.50) | 1.1 | 13 | 5.9 | 4.7 | ND (< 0.50) | ND (< 0.50) | 6.7 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | Freon 11 = 0.55 |
| F107A2 | | 6/25/2003 | ND (< 0.50) | 0.92 | 3.1 | 3.3 | 3.2 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F107A2 | | 6/22/2005 | ND (< 0.50) | 0.64 | 14 | 6.6 | 23 | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.53 ; Freon 11 = 1.3 |
| F107A2 | | 6/20/2007 | ND (< 0.50) | ND (< 0.50) | 8.4 | 8.7 | 11 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F107A2 | | 6/10/2009 | ND (< 0.50) | 0.53 | 10 | 8.9 | 11 | ND (< 0.50) | ND (< 0.50) | 2.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F107A2 | | 6/14/2011 | ND (< 0.50) | 1.1 | 6.3 | 7.6 | 11 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F107A2 | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | 4.0 | 6.6 | 7.8 | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F107A2 | Dup | 6/19/2013 | ND (< 0.50) | 0.59 | 5.5 | 7.5 | 9.8 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F123A1 | | 1/9/1991 | 2 | 31 | 57 | 6.7 | 11 | 3 | 0.5 | - | - | 20 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 5 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| F123A1 | | 2/6/1991 | 0.5 | 24 | 52 | 6 | 15 | 0.5 | 0.5 | - | - | 31 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 6.9 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F123A1 | | 7/26/1991 | 1.5 | 34 | 20 | 6.5 | - | 0.9 | ND (< 0.5) | 15 | ND (< 0.5) | 18 | ND (< 0.5) | CHLFM = 14 ; Freon 11 = 2.3 |
| F123A1 | | 10/7/1991 | 1.3 | 31 | 21 | 5.6 | - | 0.7 | ND (< 0.5) | 16 | ND (< 0.5) | 9.8 | ND (< 0.5) | CHLFM = 11 ; Freon 11 = 2.1 |
| F123A1 | | 12/9/1991 | ND (< 5) | 49 | 18 | 7.8 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F123A1 | | 9/10/1992 | 0.9 | 23 | 14 | 4.9 | - | ND (< 0.5) | ND (< 0.5) | 13 | ND (< 0.5) | 5.8 | ND (< 0.5) | CHLFM = 2.5 ; Freon 11 = 1.5 |
| F123A1 | | 12/16/1992 | ND (< 5) | 36 | 26 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | 12 | ND (< 10) | |
| F123A1 | | 3/12/1993 | 0.7 | 19 | 15 | 4.4 | - | 0.6 | ND (< 0.5) | 10 | ND (< 0.5) | 5.7 | ND (< 0.5) | CHLEA = 1.3 ; CHLFM = 4.4 |
| F123A1 | | 6/8/1993 | ND (< 0.5) | 13 | 11 | 2.2 | - | ND (< 0.5) | ND (< 0.5) | 6.9 | ND (< 0.5) | 3.7 | ND (< 0.5) | CHLFM = 14 ; Freon 11 = 1.3 |
| F123A1 | | 9/14/1993 | 0.52 | 12 | 7.7 | 2.5 | - | ND (< 0.5) | ND (< 0.5) | 5.4 | ND (< 0.5) | 3 | ND (< 0.5) | CHLEA = 2.4 ; CHLFM = 17 ; Freon 11 = 1.6 |
| F123A1 | | 12/9/1993 | ND (< 5) | 13 | 6.1 | ND (< 5) | - | ND (< 5) | - | 6.2 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 14 |
| F123A1 | | 3/7/1994 | ND (< 0.5) | 16 | 6.5 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 6.9 | ND (< 0.5) | 2.5 | ND (< 0.5) | CHLEA = 2 ; CHLFM = 21 ; Freon 11 = 1.3 |
| F123A1 | Dup | 3/7/1994 | ND (< 0.5) | 17 | 7 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 7 | ND (< 0.5) | 2.3 | ND (< 0.5) | CHLEA = 2 ; CHLFM = 22 ; Freon 11 = 1.2 |
| F123A1 | | 6/6/1994 | 0.59 | 17 | 8.7 | 2.1 | - | ND (< 0.5) | ND (< 0.5) | 6.6 | ND (< 0.5) | 3.8 | ND (< 0.5) | CHLEA = 1.5 ; CHLFM = 31 ; Freon 11 = 2.4 |
| F123A1 | | 9/6/1994 | ND (< 0.5) | 15 | 8.3 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 7.6 | ND (< 0.5) | 4.4 | ND (< 0.5) | CHLFM = 24 ; Freon 11 = 1.3 |
| F123A1 | | 12/9/1994 | ND (< 5) | 11 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 5 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 18 |
| F123A1 | | 3/3/1995 | ND (< 0.5) | 15 | 5.5 | 0.91 | - | ND (< 0.5) | ND (< 0.5) | 5.3 | ND (< 0.5) | 3 | ND (< 0.5) | CHLFM = 30 ; Freon 11 = 1.1 |
| F123A1 | | 6/8/1995 | ND (< 0.5) | 12 | 4 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 4.4 | ND (< 0.5) | 0.84 | ND (< 0.5) | CHLEA = 0.56 ; CHLFM = 20 ; Freon 11 = 0.51 |
| F123A1 | | 9/6/1995 | ND (< 0.5) | 17 | 6.2 | 1.4 | - | ND (< 0.5) | ND (< 0.5) | 6.6 | ND (< 0.5) | 2.6 | ND (< 0.5) | CHLFM = 22 ; Freon 11 = 0.53 |
| F123A1 | | 12/7/1995 | ND (< 5) | 22 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 25 |
| F123A1 | | 3/6/1996 | 0.58 | 17 | 4.5 | 1.1 | 5.3 | ND (< 0.5) | ND (< 0.5) | 4.3 | ND (< 0.5) | 0.61 | ND (< 0.5) | CHLFM = 22 |
| F123A1 | Dup | 3/6/1996 | 1 | 17 | 4.4 | 1.1 | 5.1 | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | 0.58 | ND (< 0.5) | CHLFM = 22 |
| F123A1 | | 6/10/1996 | 0.54 | 22 | 4.4 | 1.3 | 5.6 | ND (< 0.5) | ND (< 0.5) | 5 | ND (< 0.5) | 1.1 | ND (< 0.5) | CBMA = 120 ; CHLFM = 13 |
| F123A1 | | 9/11/1996 | 0.61 | 21 | 4.7 | 1.7 | 6.8 | ND (< 0.5) | ND (< 0.5) | 5.7 | ND (< 0.5) | 1.1 | ND (< 0.5) | CBMA = 107 ; CHLFM = 13 ; Freon 11 = 0.81 |
| F123A1 | | 12/12/1996 | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 13 |
| F123A1 | | 3/5/1997 | ND (< 0.5) | 14 | 2.7 | 0.92 | 3.2 | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | 1.4 | ND (< 0.5) | CBMA = 96 ; CHLFM = 7.8 ; Freon 11 = 0.61 |
| F123A1 | | 6/4/1997 | ND (< 0.5) | 19 | 3.7 | 1.6 | 4.4 | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | 1.2 | ND (< 0.5) | CBMA = 104 ; CHLFM = 5.7 |
| F123A1 | | 9/10/1997 | ND (< 0.5) | 18 | 3.2 | 1.6 | 4.2 | 0.56 | ND (< 0.5) | 4 | ND (< 0.5) | 1.6 | ND (< 0.5) | CBMA = 104 ; CHLFM = 4.7 |
| F123A1 | | 12/8/1997 | ND (< 0.5) | 22 | 2.4 | 1.8 | 3 | 1.4 | ND (< 0.5) | 4.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 ; CHLFM = 0.62 |
| F123A1 | Dup | 12/8/1997 | ND (< 0.5) | 21 | 2.3 | 1.7 | 3 | 1.5 | ND (< 0.5) | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 ; CHLFM = 0.55 |
| F123A1 | | 6/4/1998 | ND (< 1) | 37 | 3.5 | 2.1 | 4.9 | 1.6 | ND (< 1) | 5.5 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 101 ; CHLFM = 1.1 |
| F123A1 | | 12/10/1998 | 0.643 | 28.7 | 2.94 | 1.26 | 2.94 | 0.904 | ND (< 0.5) | 5.5 | ND (< 0.5) | 0.694 | ND (< 0.5) | CBMA = 98.7 ; CHLFM = 1.78 |
| F123A1 | | 6/10/1999 | ND (< 2.50) | 35.5 | 3.62 | ND (< 2.50) | 3.45 | ND (< 2.50) | ND (< 2.50) | 6.46 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F123A1 | | 12/9/1999 | 1.22 | 40 | 3.27 | 1.93 | 5.34 | ND (< 0.835) | ND (< 0.835) | 5.81 | ND (< 0.835) | ND (< 1.67) | ND (< 0.835) | CHLFM = 1.13 |
| F123A1 | | 6/6/2000 | 1.0 | 43 | 6.3 | 3.3 | 9.9 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | 2.5 | ND (< 0.50) | CHLFM = 0.72 |
| F123A1 | | 12/7/2000 | 1.1 | 36 | 6.0 | 3.4 | 10 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 1.2 ; Freon 11 = 1.7 |
| F123A1 | | 6/19/2001 | 1.8 | 35 | 10 | 3.0 | 11 | ND (< 0.50) | ND (< 0.50) | 15 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 0.93 ; Freon 11 = 1.2 |
| F123A1 | | 6/26/2003 | 2.2 | 25 | 4.6 | 0.97 | 5.6 | ND (< 0.50) | ND (< 0.50) | 5.7 | ND (< 0.50) | 5.0 | ND (< 0.50) | CHLFM = 0.78 |
| F123A1 | | 6/22/2005 | ND (< 25) | 74 | 1,300 | ND (< 25) | 80 | 60 | ND (< 25) | 58 | ND (< 25) | 64 | ND (< 25) | |
| F123A1 | | 6/13/2007 | ND (< 50) | 4,600 | 4,800 | 96 | 250 | ND (< 50) | ND (< 50) | 1,700 | ND (< 50) | 3,700 | ND (< 50) | |
| F123A1 | | 12/27/2007 | ND (< 50) | 5,600 | 7,100 | 58 | 370 | ND (< 50) | ND (< 50) | 800 | ND (< 50) | 6,500 | ND (< 50) | |
| F123A1 | | 2/1/2008 | ND (< 50) | 5,400 | 5,600 | ND (< 50) | 240 | ND (< 50) | ND (< 50) | 540 | ND (< 50) | 4,600 | ND (< 50) | |
| F123A1 | | 2/29/2008 | ND (< 50) | 4,500 | 4,000 | ND (< 50) | 160 | ND (< 50) | ND (< 50) | 310 | ND (< 50) | 3,400 | ND (< 50) | |
| F123A1 | | 6/12/2008 | ND (< 25) | 2,600 | 1,900 | ND (< 25) | 78 | ND (< 25) | ND (< 25) | 140 | ND (< 25) | 2,000 | ND (< 25) | |
| F123A1 | | 12/10/2008 | 13 | 1,600 | 920 | ND (< 10) | 34 | ND (< 10) | ND (< 10) | 55 | ND (< 10) | 1,200 | ND (< 10) | |
| F123A1 | | 6/11/2009 | 7.5 | 710 | 210 | ND (< 5.0) | 17 | ND (< 5.0) | ND (< 5.0) | 20 | ND (< 5.0) | 400 | ND (< 5.0) | |
| F123A1 | | 6/15/2011 | 5.6 | 180 | 31 | ND (< 5.0) | 7.2 | ND (< 5.0) | ND (< 5.0) | 7.5 | ND (< 5.0) | 100 | ND (< 5.0) | |
| F123A1 | | 8/26/2011 | 4.4 | 170 | 27 | ND (< 1.0) | 4.3 | ND (< 1.0) | ND (< 1.0) | 6.3 | ND (< 1.0) | 85 | ND (< 1.0) | |
| F123A1 | Dup | 8/26/2011 | 4.9 | 170 | 28 | 1.1 | 4.5 | ND (< 0.50) | ND (< 0.50) | 7.1 | ND (< 0.50) | 86 | ND (< 0.50) | |
| F123A1 | | 9/29/2011 | 3.6 | 120 | 20 | 1.1 | 4.0 | ND (< 0.50) | ND (< 0.50) | 5.8 | ND (< 0.50) | 57 | ND (< 0.50) | |
| F123A1 | | 10/17/2011 | 2.7 | 130 | 22 | 1.2 | 4.3 | ND (< 0.50) | ND (< 0.50) | 6.4 | ND (< 0.50) | 49 | ND (< 0.50) | |
| F123A1 | | 3/5/2012 | 3.2 | 76 | 12 | 1.4 | 5.0 | ND (< 0.50) | ND (< 0.50) | 6.0 | ND (< 0.50) | 37 | ND (< 0.50) | |
| F123A1 | | 6/20/2013 | 3.4 | 95 | 94 | 3.8 | 9.7 | ND (< 0.50) | ND (< 0.50) | 29 | ND (< 0.50) | 50 | ND (< 0.50) | Freon 11 = 1.0 |
| F123A1 | | 6/10/2014 | 3.6 | 67 | 26 | 1.2 | 5.1 | ND (< 0.50) | ND (< 0.50) | 8.5 | ND (< 0.50) | 39 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F124A2 | | 1/9/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.8 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F124A2 | | 2/6/1991 | 0.2 | 0.5 | 0.7 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.6 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F124A2 | | 2/6/1991 | 0.2 | 0.5 | 0.8 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.6 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F124A2 | | 7/26/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 10/7/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 12/9/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F124A2 | | 3/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 6/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 9/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 9/23/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F124A2 | | 3/11/1993 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 6/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F124A2 | | 3/7/1994 | ND (< 0.5) | ND (< 0.5) | 0.52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 9/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F124A2 | | 3/3/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | Dup | 3/3/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F124A2 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | 0.88 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F124A2 | Dup | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F124A2 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F124A2 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F124A2 | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F124A2 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F124A2 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F124A2 | Dup | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F124A2 | | 12/15/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F124A2 | Dup | 12/15/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F124A2 | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F124A2 | | 6/25/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F124A2 | | 6/22/2005 | ND (< 0.50) | ND (< 0.50) | 0.72 | 17 | 5.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.93 | |
| F124A2 | | 3/9/2007 | ND (< 0.5) | 1.1 | 2.2 | 23 | 3.8 | ND (< 0.5) | ND (< 0.5) | 0.91 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F124A2 | | 6/13/2007 | ND (< 1.0) | 61 | 22 | 130 | 19 | ND (< 1.0) | ND (< 1.0) | 7.0 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F124A2 | | 12/27/2007 | ND (< 1.0) | 61 | 15 | 120 | 14 | ND (< 1.0) | ND (< 1.0) | 5.6 | ND (< 1.0) | ND (< 1.0) | 1.4 | |
| F124A2 | | 2/1/2008 | ND (< 1.0) | 55 | 15 | 110 | 13 | ND (< 1.0) | ND (< 1.0) | 6.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F124A2 | | 2/29/2008 | ND (< 1.0) | 57 | 15 | 110 | 14 | ND (< 1.0) | ND (< 1.0) | 6.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F124A2 | | 6/12/2008 | ND (< 0.50) | 42 | 9.7 | 94 | 7.9 | ND (< 0.50) | ND (< 0.50) | 5.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F124A2 | | 12/10/2008 | ND (< 1.0) | 54 | 13 | 120 | 14 | ND (< 1.0) | ND (< 1.0) | 7.6 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| F124A2 | | 6/11/2009 | ND (< 0.50) | 61 | 13 | 150 | 13 | ND (< 0.50) | ND (< 0.50) | 8.4 | 0.75 | ND (< 0.50) | 1.2 | 1,1,2-TCA = 0.51 |
| F124A2 | | 6/15/2011 | ND (< 0.50) | 200 | 16 | 190 | 26 | ND (< 0.50) | ND (< 0.50) | 25 | 1.6 | 1.5 | 0.62 | 1,1,2-TCA = 0.53 |
| F124A2 | | 8/26/2011 | ND (< 5.0) | 330 | 21 | 270 | 41 | ND (< 5.0) | ND (< 5.0) | 34 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F124A2 | | 9/29/2011 | ND (< 5.0) | 330 | 25 | 270 | 46 | ND (< 5.0) | ND (< 5.0) | 36 | ND (< 5.0) | 6.9 | ND (< 5.0) | |
| F124A2 | Dup | 9/29/2011 | ND (< 0.50) | 340 | 20 | 270 | 35 | ND (< 0.50) | ND (< 0.50) | 32 | 2.1 | 2.2 | 0.73 | 1,1,2-TCA = 0.52 |
| F124A2 | | 10/17/2011 | ND (< 5.0) | 390 | 27 | 330 | 49 | ND (< 5.0) | ND (< 5.0) | 44 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F124A2 | | 6/19/2013 | ND (< 5.0) | 360 | 24 | 300 | 47 | ND (< 5.0) | ND (< 5.0) | 62 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| F124A2 | | 6/10/2014 | ND (< 5.0) | 470 | 85 | 67 | 72 | ND (< 5.0) | ND (< 5.0) | 89 | ND (< 5.0) | 25 | ND (< 5.0) | |
| F124A2 | Dup | 6/10/2014 | ND (< 0.50) | 430 | 78 | 56 | 55 | ND (< 0.50) | ND (< 0.50) | 79 | 1.8 | 20 | ND (< 0.50) | 1,1,2-TCA = 0.59 |
| | | | | | | | | | | | | | | |
| F125A1 | | 9/21/1992 | ND (< 0.5) | 1.4 | 3.2 | 1.7 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.9 ; CHLFM = 30 ; Freon 11 = 0.6 |
| F125A1 | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 30 |
| F125A1 | | 3/8/1993 | 0.9 | 8.9 | 4.7 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | 0.7 | ND (< 0.5) | CHLFM = 46 ; Freon 11 = 2.1 |
| F125A1 | | 6/7/1993 | 0.6 | 10 | 3.7 | 1 | - | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 24 ; Freon 11 = 2 |
| F125A1 | | 9/13/1993 | ND (< 0.5) | 8.1 | 2.4 | 0.81 | - | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | 0.67 | ND (< 0.5) | CHLFM = 24 ; Freon 11 = 0.74 |
| F125A1 | | 12/3/1993 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 12 ; CHLFM = 34 |
| F125A1 | | 3/4/1994 | 1.4 | 21 | 2.8 | 0.94 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | 1.1 | ND (< 0.5) | CHLFM = 42 ; Freon 11 = 1.5 |
| F125A1 | | 6/3/1994 | ND (< 0.5) | 8 | 0.94 | 0.55 | - | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 31 |
| F125A1 | | 9/2/1994 | 0.66 | 16 | 2.3 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 40 ; Freon 11 = 0.64 |
| F125A1 | | 12/9/1994 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 33 |
| F125A1 | | 3/2/1995 | 0.99 | 20 | 1.8 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.53 | ND (< 0.5) | 0.77 | ND (< 0.5) | CHLFM = 36 ; Freon 11 = 0.68 |
| F125A1 | | 6/7/1995 | 0.99 | 21 | 1.9 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.65 | ND (< 0.5) | CHLFM = 30 ; Freon 11 = 0.73 |
| F125A1 | | 9/6/1995 | 1.5 | 23 | 2.1 | 0.73 | - | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | 0.9 | ND (< 0.5) | CHLFM = 27 ; Freon 11 = 0.63 |
| F125A1 | | 12/7/1995 | ND (< 5) | 18 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 23 |
| F125A1 | | 3/6/1996 | 1.2 | 12 | 1.6 | 0.68 | 2.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 14 |
| F125A1 | | 6/5/1996 | 1.5 | 26 | 2 | 0.91 | 6.8 | ND (< 0.5) | ND (< 0.5) | 0.62 | ND (< 0.5) | 0.9 | ND (< 0.5) | CBMA = 105 ; CHLFM = 23 ; Freon 11 = 0.85 |
| F125A1 | | 9/11/1996 | 1.6 | 23 | 2.8 | 1.1 | 7.8 | 0.5 | ND (< 0.5) | 0.81 | ND (< 0.5) | 0.97 | ND (< 0.5) | CBMA = 109 ; CHLFM = 21 ; Freon 11 = 1.1 |
| F125A1 | | 12/12/1996 | ND (< 5) | 22 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 17 ; MC = 5.3 |
| F125A1 | | 3/5/1997 | 0.63 | 14 | 0.82 | 0.52 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 6.7 |
| F125A1 | | 6/4/1997 | 1 | 20 | ND (< 0.5) | 0.86 | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 ; CHLFM = 7.6 |
| F125A1 | | 9/10/1997 | ND (< 0.5) | 4.8 | ND (< 0.5) | ND (< 0.5) | 0.53 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 ; CHLFM = 1.2 |
| F125A1 | | 12/10/1997 | 0.53 | 9.3 | ND (< 0.5) | 0.74 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F125A1 | Dup | 12/10/1997 | ND (< 0.5) | 8.9 | ND (< 0.5) | 0.69 | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 ; MC = 1.6 |
| F125A1 | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.64 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F125A1 | | 12/10/1998 | 2.1 | 29.1 | 0.665 | 2.86 | 8.71 | 1.37 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.539 | ND (< 0.5) | CBMA = 104 ; CHLFM = 3.43 ; Freon 11 = 0.84 |
| F125A1 | | 6/10/1999 | 2.53 | 37.1 | ND (< 1.00) | 2.68 | 8.50 | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | CHLFM = 3.19 |
| F125A1 | | 12/9/1999 | 3.27 | 61.4 | ND (< 1.25) | 3.91 | 9.39 | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | CHLFM = 2.71 |
| F125A1 | | 6/6/2000 | 3.8 | 52 | ND (< 0.50) | 1.5 | 5.1 | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.6 |
| F125A1 | | 12/7/2000 | 3.2 | 51 | ND (< 1.0) | ND (< 1.0) | 3.2 | 1.3 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 1.2 |
| F125A1 | | 6/19/2001 | 4.4 | 43 | ND (< 1.0) | ND (< 1.0) | 1.9 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 1.3 |
| F125A1 | | 6/25/2003 | 6.7 | 55 | ND (< 1.0) | 1.5 | 5.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | CHLFM = 2.5 ; Freon 11 = 3.3 |
| F125A1 | | 6/22/2005 | 8.8 | 40 | ND (< 0.50) | 0.93 | 2.8 | 0.61 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.1 |
| F125A1 | | 6/13/2007 | 14 | 30 | 1,200 | 33 | 62 | ND (< 10) | ND (< 10) | 74 | ND (< 10) | 83 | ND (< 10) | |
| F125A1 | | 6/12/2008 | 11 | 32 | 280 | 10 | 18 | ND (< 2.5) | ND (< 2.5) | 23 | ND (< 2.5) | 32 | ND (< 2.5) | |
| F125A1 | | 12/10/2008 | 8.9 | 24 | 130 | 2.8 | 8.8 | ND (< 2.0) | ND (< 2.0) | 8.8 | ND (< 2.0) | 19 | ND (< 2.0) | |
| F125A1 | | 6/11/2009 | 8.6 | 26 | 100 | 1.7 | 9.2 | ND (< 1.0) | ND (< 1.0) | 6.0 | ND (< 1.0) | 7.7 | ND (< 1.0) | |
| F125A1 | Dup | 6/11/2009 | 8.5 | 27 | 120 | 2.5 | 7.1 | ND (< 0.50) | ND (< 0.50) | 6.0 | ND (< 0.50) | 7.8 | ND (< 0.50) | |
| F125A1 | | 6/15/2011 | 7.6 | 20 | 12 | 0.55 | 1.6 | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | 2.5 | ND (< 0.50) | |
| F125A1 | | 8/26/2011 | 7.9 | 20 | 8.6 | 0.58 | 1.6 | ND (< 0.50) | ND (< 0.50) | 0.73 | ND (< 0.50) | 2.2 | ND (< 0.50) | |
| F125A1 | | 9/29/2011 | 7.0 | 20 | 9.7 | 0.65 | 1.4 | ND (< 0.50) | ND (< 0.50) | 0.84 | ND (< 0.50) | 2.5 | ND (< 0.50) | |
| F125A1 | | 10/17/2011 | 5.6 | 19 | 9.4 | 0.55 | 1.5 | ND (< 0.50) | ND (< 0.50) | 0.76 | ND (< 0.50) | 2.2 | ND (< 0.50) | |
| F125A1 | Dup | 10/17/2011 | 5.0 | 17 | 8.1 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | 0.70 | ND (< 0.50) | 1.9 | ND (< 0.50) | |
| F125A1 | | 6/19/2013 | 5.0 | 10 | 2.6 | ND (< 0.50) | 0.73 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.86 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F126A2 | | 3/6/1992 | 0.7 | 27 | 19 | 5.8 | - | 0.6 | ND (< 0.5) | 19 | ND (< 0.5) | 7.3 | ND (< 0.5) | CHLEA = 1.2 ; CHLFM = 5.5 ; Freon 11 = 1.3 |
| F126A2 | | 6/10/1992 | 1.8 | 44 | 31 | 5.8 | - | 0.6 | ND (< 0.5) | 22 | ND (< 0.5) | 30 | ND (< 0.5) | CHLEA = 1.4 ; CHLFM = 5.1 ; Freon 11 = 1.3 |
| F126A2 | | 9/14/1992 | ND (< 0.5) | ND (< 0.5) | 2.4 | 1.3 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 11 |
| F126A2 | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F126A2 | Dup | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 5.6 |
| F126A2 | | 3/12/1993 | ND (< 0.5) | 1 | 4.9 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 34 ; Freon 11 = 1.4 |
| F126A2 | | 6/7/1993 | ND (< 0.5) | 0.6 | 5.7 | 1.6 | - | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 23 ; Freon 11 = 1.9 |
| F126A2 | | 9/13/1993 | ND (< 0.5) | 2.1 | 4.1 | 0.97 | - | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 23 ; Freon 11 = 1.1 |
| F126A2 | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 28 |
| F126A2 | | 3/3/1994 | ND (< 0.5) | 2.2 | 4.2 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.63 | ND (< 0.5) | CHLFM = 27 ; Freon 11 = 1.8 |
| F126A2 | | 6/3/1994 | ND (< 0.5) | 3.1 | 5.2 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | 1.7 | ND (< 0.5) | CHLFM = 37 ; Freon 11 = 2.9 |
| F126A2 | | 9/2/1994 | ND (< 0.5) | 2.4 | 3.9 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 33 ; Freon 11 = 1.2 |
| F126A2 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 21 |
| F126A2 | | 3/2/1995 | ND (< 0.5) | 1.1 | 1.3 | 0.56 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 17 |
| F126A2 | | 6/7/1995 | ND (< 0.5) | 0.78 | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3.1 |
| F126A2 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F126A2 | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F126A2 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F126A2 | | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F126A2 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F126A2 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F126A2 | | 6/6/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F126A2 | | 12/10/1997 | ND (< 0.5) | ND (< 0.5) | 0.63 | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| F126A2 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | 0.71 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| F126A2 | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F126A2 | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F126A2 | | 3/8/2007 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 12 | 0.98 | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F126A2 | | 6/26/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.7 | 0.66 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F126A2 | | 12/12/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 5.5 | 0.67 | ND (< 0.50) | ND (< 0.50) | 0.88 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F126A2 | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | 1.1 | 5.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.75 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F126A2 | | 6/15/2011 | ND (< 0.50) | 0.71 | ND (< 0.50) | 7.2 | 1.0 | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F126A2 | | 6/13/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 11 | 2.4 | ND (< 0.50) | ND (< 0.50) | 4.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F126A2 | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | 0.52 | 10 | 5.1 | ND (< 0.50) | ND (< 0.50) | 9.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F126A2 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.1 | 1.3 | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F127A1 | | 9/14/1992 | ND (< 2.5) | 780 | 46 | 8.5 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | 3.5 | ND (< 2.5) | CHLFM = 2.5 |
| F127A1 | | 12/16/1992 | ND (< 5) | 780 | 55 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | 11 | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F127A1 | | 3/9/1993 | ND (< 2.5) | 940 | 70 | 9 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 12 | ND (< 2.5) | 16 | ND (< 2.5) | |
| F127A1 | | 6/11/1993 | ND (< 2.5) | 640 | 42 | 4.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | 5.5 | ND (< 2.5) | |
| F127A1 | Dup | 6/11/1993 | ND (< 2.5) | 540 | 39 | 4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.5 | ND (< 2.5) | 5.5 | ND (< 2.5) | |
| F127A1 | | 9/10/1993 | 9.6 | 890 | 72 | 16 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 44 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F127A1 | | 12/3/1993 | ND (< 5) | 71 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 5.6 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F127A1 | | 3/7/1994 | ND (< 0.5) | 180 | 6 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 6.3 | ND (< 0.5) | 1.1 | ND (< 0.5) | |
| F127A1 | | 6/6/1994 | ND (< 1) | 250 | 18 | 3.6 | - | ND (< 1) | ND (< 1) | 12 | ND (< 1) | 3 | ND (< 1) | |
| F127A1 | | 9/6/1994 | ND (< 1.7) | 310 | 22 | 4 | - | ND (< 1.7) | ND (< 1.7) | 13 | ND (< 1.7) | 3.3 | ND (< 1.7) | |
| F127A1 | | 12/5/1994 | ND (< 5) | 900 | 44 | 11 | - | ND (< 5) | - | 18 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F127A1 | Dup | 12/5/1994 | ND (< 5) | 780 | 42 | 9.9 | - | ND (< 5) | - | 17 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F127A1 | | 3/2/1995 | ND (< 2.5) | 630 | 45 | 7.6 | - | ND (< 2.5) | ND (< 2.5) | 16 | ND (< 2.5) | 12 | ND (< 2.5) | CHLFM = 2.7 |
| F127A1 | | 6/5/1995 | ND (< 2.5) | 600 | 45 | 11 | - | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | 7.8 | ND (< 2.5) | |
| F127A1 | | 9/7/1995 | ND (< 12) | 1,200 | 110 | 17 | - | ND (< 12) | ND (< 12) | 42 | ND (< 12) | 27 | ND (< 12) | MC = 29 |
| F127A1 | | 12/11/1995 | ND (< 5) | 960 | 70 | 15 | - | ND (< 5) | - | 34 | ND (< 5) | 10 | ND (< 10) | |
| F127A1 | | 3/7/1996 | ND (< 12) | 920 | 88 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 28 | ND (< 12) | ND (< 12) | ND (< 12) | |
| F127A1 | | 6/6/1996 | ND (< 10) | 670 | 57 | 15 | 13 | ND (< 10) | ND (< 10) | 37 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 107 ; MC = 13 |
| F127A1 | | 9/13/1996 | ND (< 1) | 480 | 26 | 11 | 10 | ND (< 1) | ND (< 1) | 24 | ND (< 1) | 1.7 | ND (< 1) | CBMA = 98 ; CHLFM = 2.4 |
| F127A1 | | 12/16/1996 | ND (< 12) | 370 | 19 | ND (< 12) | ND (< 12) | ND (< 12) | - | 28 | ND (< 12) | ND (< 12) | ND (< 25) | |
| F127A1 | | 3/6/1997 | ND (< 5) | 290 | 24 | 8.5 | 5.6 | ND (< 5) | ND (< 5) | 25 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 108 ; MC = 8.7 |
| F127A1 | | 6/9/1997 | ND (< 5) | 270 | 24 | 8.5 | 5.7 | ND (< 5) | ND (< 5) | 26 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 102 |
| F127A1 | | 9/12/1997 | ND (< 5) | 320 | 33 | 5.8 | 6.5 | ND (< 5) | ND (< 5) | 26 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 |
| F127A1 | | 12/9/1997 | ND (< 5) | 150 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 97 |
| F127A1 | | 6/2/1998 | ND (< 10) | 180 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 20 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 113 |
| F127A1 | | 12/11/1998 | ND (< 5) | 265 | 28.3 | 5.4 | 8.28 | ND (< 5) | ND (< 5) | 30.3 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 95 |
| F127A1 | | 6/9/1999 | ND (< 25.0) | 581 | 72.8 | ND (< 25.0) | 27.1 | ND (< 25.0) | ND (< 25.0) | 60.9 | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | |
| F127A1 | | 12/8/1999 | ND (< 16.7) | 643 | 50.1 | ND (< 16.7) | 24.6 | ND (< 16.7) | ND (< 16.7) | 56.1 | ND (< 16.7) | 41.4 | ND (< 16.7) | |
| F127A1 | | 6/6/2000 | ND (< 5.0) | 460 | 41 | ND (< 5.0) | 19 | ND (< 5.0) | ND (< 5.0) | 35 | ND (< 5.0) | 28 | ND (< 5.0) | |
| F127A1 | | 12/6/2000 | ND (< 10) | 340 | 25 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 28 | ND (< 10) | ND (< 40) | ND (< 10) | |
| F127A1 | | 6/20/2001 | ND (< 10) | 380 | 26 | ND (< 10) | 11 | ND (< 10) | ND (< 10) | 34 | ND (< 10) | ND (< 40) | ND (< 10) | |
| F127A1 | Dup | 6/20/2001 | ND (< 10) | 360 | 24 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 28 | ND (< 10) | ND (< 40) | ND (< 10) | |
| F127A1 | | 6/27/2002 | ND (< 5.0) | 390 | 29 | ND (< 5.0) | 11 | ND (< 5.0) | ND (< 5.0) | 30 | ND (< 5.0) | 23 | ND (< 5.0) | |
| F127A1 | | 6/25/2003 | ND (< 10) | 320 | 17 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 27 | ND (< 10) | 18 | ND (< 10) | |
| F127A1 | Dup | 6/25/2003 | ND (< 5.0) | 330 | 18 | 5.3 | 8.5 | ND (< 5.0) | ND (< 5.0) | 27 | ND (< 5.0) | 10 | ND (< 5.0) | |
| F127A1 | | 8/31/2004 | ND (< 5.0) | 180 | 8.2 | ND (< 5.0) | 5.5 | ND (< 5.0) | ND (< 5.0) | 19 | ND (< 5.0) | 6.3 | ND (< 5.0) | |
| F127A1 | | 8/31/2004 | ND (< 5.0) | 370 | 23 | ND (< 5.0) | 14 | ND (< 5.0) | ND (< 5.0) | 28 | ND (< 5.0) | 32 | ND (< 5.0) | |
| F127A1 | | 6/22/2005 | ND (< 5.0) | 470 | 270 | 49 | 150 | 12 | ND (< 5.0) | 130 | ND (< 5.0) | 86 | ND (< 5.0) | CT = 43 |
| F127A1 | | 6/27/2006 | ND (< 5.0) | 410 | 280 | 10 | 48 | ND (< 5.0) | ND (< 5.0) | 58 | ND (< 5.0) | 110 | ND (< 5.0) | |
| F127A1 | | 6/14/2007 | ND (< 10) | 970 | 820 | 60 | 160 | ND (< 10) | ND (< 10) | 290 | ND (< 10) | 370 | ND (< 10) | |
| F127A1 | | 6/12/2008 | ND (< 10) | 1,900 | 820 | 37 | 140 | ND (< 10) | ND (< 10) | 200 | ND (< 10) | 710 | ND (< 10) | |
| F127A1 | | 12/10/2008 | ND (< 50) | 2,300 | 1,400 | 56 | 220 | ND (< 50) | ND (< 50) | 320 | ND (< 50) | 1,000 | ND (< 50) | |
| F127A1 | | 6/11/2009 | ND (< 10) | 2,300 | 1,500 | 56 | 290 | ND (< 10) | ND (< 10) | 270 | ND (< 10) | 820 | ND (< 10) | |
| F127A1 | | 6/8/2010 | ND (< 25) | 2,300 | 950 | ND (< 25) | 190 | ND (< 25) | ND (< 25) | 160 | ND (< 25) | 770 | ND (< 25) | |
| F127A1 | | 6/15/2011 | ND (< 5.0) | 1,800 | 710 | 16 | 100 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 660 | ND (< 5.0) | |
| F127A1 | | 8/26/2011 | ND (< 5.0) | 1,800 | 720 | 10 | 80 | ND (< 5.0) | ND (< 5.0) | 100 | ND (< 5.0) | 750 | ND (< 5.0) | |
| F127A1 | | 9/29/2011 | ND (< 5.0) | 1,700 | 610 | 9.9 | 79 | ND (< 5.0) | ND (< 5.0) | 88 | ND (< 5.0) | 620 | ND (< 5.0) | |
| F127A1 | | 10/17/2011 | ND (< 0.50) | 1,600 | 620 | 8.3 | 75 | ND (< 0.50) | ND (< 0.50) | 88 | 0.67 | 550 | ND (< 0.50) | |
| F127A1 | | 3/5/2012 | ND (< 10) | 1,300 | 380 | ND (< 10) | 81 | ND (< 10) | ND (< 10) | 61 | ND (< 10) | 550 | ND (< 10) | |
| F127A1 | Dup | 3/5/2012 | ND (< 0.50) | 1,500 | 430 | 5.7 | 60 | ND (< 0.50) | ND (< 0.50) | 57 | 0.57 | 590 | ND (< 0.50) | |
| F127A1 | | 6/14/2012 | ND (< 10) | 1,400 | 390 | ND (< 10) | 47 | ND (< 10) | ND (< 10) | 58 | ND (< 10) | 510 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| F127A1R | | 3/5/2012 | ND (< 0.50) | 360 | 110 | 30 | 81 | 0.50 | ND (< 0.50) | 130 | 1.2 | 46 | ND (< 0.50) | |
| F127A1R | Dup | 3/5/2012 | ND (< 0.50) | 350 | 110 | 27 | 71 | 0.50 | ND (< 0.50) | 110 | 1.3 | 48 | ND (< 0.50) | |
| F127A1R | | 6/14/2012 | ND (< 5.0) | 340 | 140 | 32 | 82 | ND (< 5.0) | ND (< 5.0) | 140 | ND (< 5.0) | 56 | ND (< 5.0) | |
| F127A1R | Dup | 6/14/2012 | 0.54 | 360 | 130 | 32 | 75 | 0.71 | ND (< 0.50) | 140 | 1.1 | 47 | ND (< 0.50) | CHLFM = 1.1 |
| F127A1R | | 6/20/2013 | 3.2 | 670 | 160 | 31 | 86 | 0.64 | ND (< 0.50) | 150 | 1.2 | 61 | 0.50 | CHLFM= 1.1 |
| F127A1R | | 6/11/2014 | ND (< 5.0) | 350 | 100 | 26 | 71 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 66 | ND (< 5.0) | |
| F127A1R | Dup | 6/11/2014 | 2.5 | 330 | 100 | 25 | 66 | ND (< 0.50) | ND (< 0.50) | 120 | 1.2 | 64 | ND (< 0.50) | CHLFM = 1.0 |
| | | | | | | | | | | | | | | |
| F128A | | 12/16/1992 | ND (< 5) | 880 | 46 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F128A | | 3/4/1993 | ND (< 1) | 190 | 27 | 3 | ND (< 5) | ND (< 1) | ND (< 1) | 26 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.4 |
| F128A | | 6/14/1993 | ND (< 1) | 260 | 22 | 2 | ND (< 5) | ND (< 1) | ND (< 1) | 30 | ND (< 1) | ND (< 1) | ND (< 1) | |
| F128A | | 9/10/1993 | ND (< 1) | 440 | 25 | 6.1 | ND (< 5) | ND (< 1) | ND (< 1) | 44 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 2.3 |
| F128A | | 12/3/1993 | ND (< 5) | 39 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 17 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F128A | | 3/10/1994 | ND (< 5) | 880 | 96 | ND (< 5) | - | ND (< 5) | ND (< 5) | 120 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F128A | | 6/9/1994 | ND (< 5) | 840 | 50 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 120 | ND (< 5) | ND (< 5) | ND (< 5) | BDCHLMA = 39 |
| F128A | | 12/6/1994 | ND (< 25) | 870 | 46 | ND (< 25) | ND (< 25) | ND (< 25) | - | 88 | ND (< 25) | ND (< 25) | ND (< 50) | |
| F128A | | 6/7/1995 | ND (< 5) | 810 | 46 | 9.2 | - | ND (< 5) | ND (< 5) | 90 | ND (< 5) | 6.8 | ND (< 5) | |
| F128A | | 12/11/1995 | 5.6 | 450 | 32 | 6.6 | - | ND (< 5) | - | 64 | ND (< 5) | 5.5 | ND (< 10) | |
| F128A | | 6/7/1996 | ND (< 2.5) | 280 | 24 | 5.4 | 15 | ND (< 2.5) | ND (< 2.5) | 50 | ND (< 2.5) | 4.1 | ND (< 2.5) | CBMA = 115 |
| F128A | | 12/16/1996 | ND (< 5) | 140 | 7.7 | ND (< 5) | ND (< 5) | ND (< 5) | - | 19 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F128A | Dup | 12/16/1996 | ND (< 5) | 140 | 7.8 | ND (< 5) | 5 | ND (< 5) | - | 19 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F128A | | 6/9/1997 | ND (< 5) | 240 | 27 | ND (< 5) | 10 | ND (< 5) | ND (< 5) | 32 | ND (< 5) | 5.8 | ND (< 5) | CBMA = 103 |
| F128A | | 12/3/1997 | ND (< 5) | 97 | 8.7 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 10 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 92 |
| F128A | | 6/5/1998 | ND (< 5) | 86 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 9.4 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 101 ; CHLFM = 9.3 |
| F128A | | 12/11/1998 | 0.534 | 4.96 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.727 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F128A | | 6/8/1999 | ND (< 10.0) | 212 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | 14.1 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | CHLFM = 13.3 |
| F128A | | 12/8/1999 | ND (< 0.5) | 1.71 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| F128A | | 6/8/2000 | ND (< 0.50) | 22 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 1.3 |
| F128A | | 12/8/2000 | ND (< 0.50) | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F128A | | 9/28/2011 | ND (< 0.50) | 67 | 2.5 | 0.91 | 1.5 | ND (< 0.50) | ND (< 0.50) | 5.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.4 |
| | | | | | | | | | | | | | | |
| F129A1 | | 12/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| F129A1 | | 12/17/1992 | ND (< 5) | ND (< 5) | ND (< 5) | 7.3 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F129A1 | | 3/5/1993 | ND (< 0.5) | ND (< 0.5) | 0.9 | 3.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.5 ; CHLFM = 1.6 |
| F129A1 | | 6/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F129A1 | | 9/13/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 0.62 |
| F129A1 | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | 7.3 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F129A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.7 ; CT = 1.3 |
| F129A1 | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | 19 | ND (< 5) | ND (< 5) | - | 11 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F129A1 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 21 | - | 0.9 | ND (< 0.5) | 9.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.2 |
| F129A1 | | 9/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 12 | - | 1.8 | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F129A1 | Dup | 9/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 13 | - | 1.3 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F129A1 | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | 23 | ND (< 5) | ND (< 5) | - | 20 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F129A1 | | 6/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 31 | 1.4 | 2 | ND (< 0.5) | 21 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F129A1 | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | 30 | ND (< 5) | ND (< 5) | - | 29 | ND (< 5) | ND (< 5) | ND (< 10) | MC = 5.2 |
| F129A1 | Dup | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | 31 | ND (< 5) | ND (< 5) | - | 30 | ND (< 5) | ND (< 5) | ND (< 10) | MC = 5.5 |
| F129A1 | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 28 | 2.7 | 2.9 | ND (< 0.5) | 39 | 0.71 | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F129A1 | | 12/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 17 | 1.7 | 1.7 | ND (< 0.5) | 25 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F129A1 | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 11 | 0.97 | 0.9 | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| F129A1 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 11.1 | 1.46 | 1 | ND (< 0.5) | 17.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 126 |
| F129A1 | | 6/9/1999 | ND (< 0.500) | 0.745 | 0.618 | 14.5 | 3.09 | 0.987 | ND (< 0.500) | 25.8 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F129A1 | | 12/8/1999 | ND (< 4.17) | ND (< 4.17) | ND (< 4.17) | 47.4 | 24.5 | ND (< 4.17) | ND (< 4.17) | 137 | ND (< 4.17) | ND (< 8.33) | ND (< 4.17) | |
| F129A1 | | 6/6/2000 | ND (< 1.0) | ND (< 1.0) | 2.1 | 38 | 13 | 1.2 | ND (< 1.0) | 99 | 1.4 | ND (< 1.0) | ND (< 1.0) | |
| F129A1 | | 12/6/2000 | ND (< 2.5) | ND (< 2.5) | 3.2 | 38 | 17 | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F129A1 | | 6/20/2001 | ND (< 2.5) | ND (< 2.5) | 4.1 | 43 | 20 | ND (< 2.5) | ND (< 2.5) | 130 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| F129A1 | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.0 | 2.4 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F129A1 | | 6/22/2005 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 33 | 27 | ND (< 2.5) | ND (< 2.5) | 100 | 2.9 | ND (< 2.5) | 2.9 | |
| F129A1 | | 6/14/2007 | ND (< 1.0) | ND (< 1.0) | 23 | 32 | 34 | ND (< 1.0) | ND (< 1.0) | 120 | 3.9 | ND (< 1.0) | ND (< 1.0) | |
| F129A1 | | 6/12/2008 | ND (< 1.0) | ND (< 1.0) | 31 | 33 | 45 | ND (< 1.0) | ND (< 1.0) | 130 | 4.8 | ND (< 1.0) | 1.7 | |
| F129A1 | | 12/10/2008 | ND (< 1.0) | ND (< 1.0) | 33 | 32 | 46 | ND (< 1.0) | ND (< 1.0) | 140 | 5.0 | ND (< 1.0) | ND (< 1.0) | |
| F129A1 | | 6/11/2009 | ND (< 1.0) | ND (< 1.0) | 25 | 38 | 43 | ND (< 1.0) | ND (< 1.0) | 120 | 4.9 | ND (< 1.0) | 1.7 | |
| F129A1 | | 6/15/2011 | ND (< 0.50) | 1.1 | 16 | 28 | 36 | 0.68 | ND (< 0.50) | 110 | 3.6 | 0.53 | 1.2 | |
| F129A1 | | 8/26/2011 | ND (< 0.50) | ND (< 0.50) | 16 | 30 | 40 | 0.63 | ND (< 0.50) | 110 | 5.1 | ND (< 0.50) | 3.8 | |
| F129A1 | | 9/29/2011 | ND (< 0.50) | 0.82 | 19 | 26 | 37 | 0.62 | ND (< 0.50) | 100 | 4.7 | ND (< 0.50) | 3.5 | |
| F129A1 | | 10/17/2011 | ND (< 0.50) | ND (< 0.50) | 20 | 26 | 34 | 0.67 | ND (< 0.50) | 110 | 4.9 | ND (< 0.50) | 3.0 | |
| F129A1 | | 3/5/2012 | ND (< 0.50) | ND (< 0.50) | 22 | 26 | 40 | 0.50 | ND (< 0.50) | 110 | 4.8 | ND (< 0.50) | 0.96 | |
| F129A1 | | 6/20/2013 | ND (< 1.0) | ND (< 1.0) | 28 | 28 | 36 | ND (< 1.0) | ND (< 1.0) | 97 | 4.4 | ND (< 1.0) | 1.3 | |
| F129A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | 37 | 29 | 32 | 0.50 | ND (< 0.50) | 91 | 3.9 | ND (< 0.50) | 2.1 | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| F130A1U | | 9/21/1992 | ND (< 1) | 320 | 190 | 22 | ND (< 5) | ND (< 1) | ND (< 1) | 180 | ND (< 1) | 7 | ND (< 1) | CHLFM = 7.6 ; Freon 11 = 2.2 |
| F130A1U | | 12/17/1992 | ND (< 5) | 220 | 93 | 13 | ND (< 6.2) | ND (< 5) | - | 110 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F130A1U | Dup | 12/17/1992 | ND (< 6.2) | 210 | 94 | 15 | ND (< 6.2) | ND (< 6.2) | - | 110 | ND (< 6.2) | ND (< 6.2) | ND (< 12) | Acetone = 18 |
| F130A1U | | 3/11/1993 | ND (< 1) | 410 | 250 | 29 | ND (< 5) | 1.4 | ND (< 1) | 240 | ND (< 1) | 5.2 | ND (< 1) | CHLFM = 16 |
| F130A1U | Dup | 3/11/1993 | ND (< 1) | 430 | 260 | 30 | ND (< 5) | 1.2 | ND (< 1) | 240 | ND (< 1) | 5.2 | ND (< 1) | CHLFM = 16 |
| F130A1U | | 6/14/1993 | ND (< 1) | 280 | 160 | 14 | ND (< 5) | ND (< 1) | ND (< 1) | 160 | ND (< 1) | 5.4 | ND (< 1) | CHLFM = 3.4 |
| F130A1U | | 9/10/1993 | ND (< 1) | 250 | 190 | 14 | ND (< 5) | ND (< 1) | ND (< 1) | 180 | ND (< 1) | 8.9 | ND (< 1) | CHLFM = 15 |
| F130A1U | Dup | 9/10/1993 | ND (< 1) | 240 | 180 | 15 | ND (< 5) | ND (< 1) | ND (< 1) | 170 | ND (< 1) | 8.5 | ND (< 1) | CHLFM = 15 ; MC = 1.7 |
| F130A1U | | 12/10/1993 | ND (< 5) | 300 | 200 | 24 | - | ND (< 5) | - | 230 | ND (< 5) | 21 | ND (< 10) | CHLFM = 17 |
| F130A1U | Dup | 12/10/1993 | ND (< 5) | 320 | 220 | 24 | - | ND (< 5) | - | 250 | ND (< 5) | 23 | ND (< 10) | CHLFM = 17 |
| F130A1U | | 3/2/1994 | ND (< 2.5) | 490 | 260 | 29 | - | ND (< 2.5) | ND (< 2.5) | 280 | ND (< 2.5) | 34 | ND (< 2.5) | CHLFM = 25 |
| F130A1U | | 6/2/1994 | ND (< 1) | 280 | 150 | 18 | - | ND (< 1) | ND (< 1) | 170 | ND (< 1) | 21 | ND (< 1) | CHLFM = 20 |
| F130A1U | | 9/2/1994 | ND (< 1) | 260 | 150 | 12 | - | ND (< 1) | ND (< 1) | 170 | ND (< 1) | 16 | ND (< 1) | CHLFM = 25 |
| F130A1U | | 12/5/1994 | ND (< 10) | 420 | 170 | 17 | - | ND (< 10) | - | 180 | ND (< 10) | 35 | ND (< 20) | CHLFM = 27 |
| F130A1U | | 3/2/1995 | ND (< 1) | 260 | 120 | 11 | - | ND (< 1) | ND (< 1) | 140 | ND (< 1) | 21 | ND (< 1) | CHLFM = 21 |
| F130A1U | | 6/5/1995 | ND (< 1) | 120 | 51 | 8.9 | - | ND (< 1) | ND (< 1) | 58 | ND (< 1) | 7.9 | ND (< 1) | CHLFM = 8.4 |
| F130A1U | | 9/6/1995 | ND (< 2.5) | 96 | 51 | 12 | - | ND (< 2.5) | ND (< 2.5) | 59 | ND (< 2.5) | 4.3 | ND (< 2.5) | CHLFM = 12 |
| F130A1U | | 12/5/1995 | ND (< 5) | 71 | 35 | 7.9 | - | ND (< 5) | - | 50 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 18 |
| F130A1U | | 3/7/1996 | ND (< 1) | 67 | 36 | 9.7 | 12 | ND (< 1) | ND (< 1) | 47 | ND (< 1) | 2.2 | ND (< 1) | CHLFM = 4.3 |
| F130A1U | | 6/5/1996 | ND (< 1) | 59 | 32 | 6.4 | 16 | ND (< 1) | ND (< 1) | 45 | ND (< 1) | 2.9 | ND (< 1) | CBMA = 105 ; CHLFM = 2.5 |
| F130A1U | | 9/13/1996 | ND (< 0.5) | 43 | 23 | 4.3 | 12 | ND (< 0.5) | ND (< 0.5) | 28 | ND (< 0.5) | 2.6 | ND (< 0.5) | CBMA = 107 ; CHLFM = 2.6 ; Freon 11 = 0.66 |
| F130A1U | | 12/13/1996 | ND (< 5) | 35 | 18 | ND (< 5) | 7.0 | ND (< 5) | - | 23 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F130A1U | | 3/6/1997 | ND (< 1) | 30 | 14 | 2.3 | 5 | ND (< 1) | ND (< 1) | 15 | ND (< 1) | 2 | ND (< 1) | CBMA = 100 ; CHLFM = 2.2 |
| F130A1U | Dup | 3/6/1997 | ND (< 1) | 29 | 13 | 2.3 | 4.4 | ND (< 1) | ND (< 1) | 15 | ND (< 1) | 1.9 | ND (< 1) | CBMA = 102 ; CHLFM = 2.2 |
| F130A1U | | 6/6/1997 | ND (< 1) | 36 | 13 | 2.9 | 8.5 | ND (< 1) | ND (< 1) | 17 | ND (< 1) | 2.3 | ND (< 1) | CBMA = 106 ; CHLFM = 2.3 |
| F130A1U | | 9/11/1997 | ND (< 1) | 38 | 13 | 2 | 8.1 | ND (< 1) | ND (< 1) | 13 | ND (< 1) | 2.1 | ND (< 1) | CBMA = 97 ; CHLFM = 2.1 |
| F130A1U | | 12/8/1997 | ND (< 0.5) | 13 | 4.4 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | 3.3 | ND (< 0.5) | 0.51 | ND (< 0.5) | CBMA = 99 ; MC = 0.81 |
| F130A1U | Dup | 12/8/1997 | ND (< 0.5) | 13 | 4.2 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 ; MC = 0.54 |
| F130A1U | | 6/4/1998 | ND (< 1) | 22 | 5.3 | 1.7 | 4.7 | ND (< 1) | ND (< 1) | 8.6 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 99 |
| F130A1U | Dup | 6/4/1998 | ND (< 1) | 23 | 5.3 | 1.7 | 4.8 | ND (< 1) | ND (< 1) | 8.8 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 100 |
| F130A1U | | 12/9/1998 | ND (< 0.5) | 19 | 4.95 | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | 3.52 | ND (< 0.5) | 0.866 | ND (< 0.5) | CBMA = 98.7 |
| F130A1U | Dup | 12/9/1998 | ND (< 0.5) | 20.4 | 5.29 | 0.559 | 2.35 | ND (< 0.5) | ND (< 0.5) | 4.25 | ND (< 0.5) | 1.1 | ND (< 0.5) | CBMA = 101 |
| F130A1U | | 6/9/1999 | ND (< 0.500) | 19.4 | 3.72 | 1.17 | 3.37 | ND (< 0.500) | ND (< 0.500) | 6.35 | ND (< 0.500) | 1.52 | ND (< 0.500) | |
| F130A1U | | 12/14/1999 | ND (< 1.25) | 35.4 | 4.45 | ND (< 1.25) | 4.26 | ND (< 1.25) | ND (< 1.25) | 8.05 | ND (< 1.25) | 2.84 | ND (< 1.25) | |
| F130A1U | | 6/6/2000 | ND (< 10) | 31 | 420 | 110 | 140 | ND (< 10) | ND (< 10) | 750 | 12 | ND (< 10) | ND (< 10) | |
| F130A1U | | 12/6/2000 | ND (< 0.50) | 31 | 2.1 | 0.67 | 2.6 | ND (< 0.50) | ND (< 0.50) | 5.6 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F130A1U | | 6/20/2001 | ND (< 0.50) | 33 | 1.9 | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | 5.6 | ND (< 0.50) | 2.8 | ND (< 0.50) | |
| F130A1U | | 6/24/2003 | ND (< 0.50) | 29 | 1.4 | 0.70 | 1.9 | ND (< 0.50) | ND (< 0.50) | 4.4 | ND (< 0.50) | 1.1 | ND (< 0.50) | |
| F130A1U | | 6/22/2005 | ND (< 0.50) | 39 | 2.3 | 1.1 | 6.1 | ND (< 0.50) | ND (< 0.50) | 8.3 | ND (< 0.50) | 4.4 | ND (< 0.50) | |
| F130A1U | | 6/14/2007 | ND (< 0.50) | 21 | 8.8 | 2.2 | 2.2 | ND (< 0.50) | ND (< 0.50) | 9.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F130A1U | | 6/11/2009 | ND (< 0.50) | 18 | 3.6 | 0.57 | 1.4 | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F130A1U | | 6/15/2011 | ND (< 0.50) | 30 | 1.7 | 0.89 | 3.0 | ND (< 0.50) | ND (< 0.50) | 5.0 | ND (< 0.50) | 3.2 | ND (< 0.50) | |
| F130A1U | | 6/20/2013 | ND (< 0.50) | 13 | 0.86 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.93 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F130A1U | | 6/11/2014 | ND (< 0.50) | 15 | 0.83 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.56 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F131A1 | | 9/21/1992 | ND (< 5) | 1,100 | 1,300 | 49 | ND (< 25) | ND (< 5) | ND (< 5) | 780 | ND (< 5) | 360 | ND (< 5) | CHLFM = 24 |
| F131A1 | Dup | 9/21/1992 | ND (< 5) | 1,100 | 1,300 | 56 | ND (< 25) | ND (< 5) | ND (< 5) | 760 | ND (< 5) | 460 | ND (< 5) | CHLFM = 28 |
| F131A1 | | 12/17/1992 | ND (< 5) | 1,800 | 1,500 | 42 | ND (< 50) | ND (< 5) | - | 1,200 | ND (< 5) | 800 | ND (< 10) | CHLFM = 11 |
| F131A1 | | 3/11/1993 | ND (< 5) | 430 | 1,200 | 29 | ND (< 25) | ND (< 5) | ND (< 5) | 350 | ND (< 5) | 230 | ND (< 5) | CHLFM = 30 |
| F131A1 | | 6/10/1993 | ND (< 5) | 1,000 | 890 | 32 | ND (< 25) | ND (< 5) | ND (< 5) | 490 | ND (< 5) | 340 | ND (< 5) | CHLFM = 9 |
| F131A1 | | 9/10/1993 | ND (< 1) | 180 | 400 | 22 | ND (< 5) | ND (< 1) | ND (< 1) | 250 | ND (< 1) | 82 | ND (< 1) | CHLFM = 9.5 ; Freon 11 = 1.5 |
| F131A1 | | 12/10/1993 | ND (< 5) | 690 | 370 | 29 | - | ND (< 5) | - | 300 | ND (< 5) | 220 | ND (< 10) | CHLFM = 11 |
| F131A1 | | 3/2/1994 | ND (< 1) | 630 | 110 | 9.8 | - | ND (< 1) | ND (< 1) | 100 | ND (< 1) | 44 | ND (< 1) | CHLFM = 5.8 |
| F131A1 | | 6/2/1994 | ND (< 1) | 180 | 200 | 24 | - | 1 | ND (< 1) | 200 | ND (< 1) | 44 | ND (< 1) | CHLFM = 11 |
| F131A1 | Dup | 6/2/1994 | ND (< 1) | 180 | 210 | 25 | - | ND (< 1) | ND (< 1) | 200 | ND (< 1) | 49 | ND (< 1) | CHLFM = 11 |
| F131A1 | | 9/7/1994 | ND (< 1) | 58 | 300 | 22 | - | ND (< 1) | ND (< 1) | 240 | ND (< 1) | 72 | ND (< 1) | CHLFM = 7.1 |
| F131A1 | | 12/5/1994 | ND (< 5) | 8.2 | 8.3 | ND (< 5) | ND (< 5) | ND (< 5) | - | 5.6 | ND (< 5) | 12 | ND (< 10) | |
| F131A1 | | 3/2/1995 | ND (< 0.5) | 3.8 | 0.89 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.1 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F131A1 | Dup | 3/2/1995 | ND (< 0.5) | 4.2 | 0.97 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.4 |
| F131A1 | | 6/8/1995 | ND (< 0.5) | 64 | 55 | 3.7 | - | 0.73 | ND (< 0.5) | 53 | ND (< 0.5) | 3.6 | ND (< 0.5) | CHLFM = 2.3 |
| F131A1 | | 9/7/1995 | ND (< 0.5) | 48 | 68 | 7.4 | - | 1.8 | ND (< 0.5) | 71 | 0.61 | 5.5 | ND (< 0.5) | CHLFM = 3.8 |
| F131A1 | | 12/8/1995 | ND (< 5) | 18 | 22 | ND (< 5) | - | ND (< 5) | - | 12 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 9.4 |
| F131A1 | | 3/7/1996 | ND (< 0.5) | 2.7 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| F131A1 | | 6/5/1996 | ND (< 0.5) | 7.4 | 8.1 | 0.8 | 3.4 | ND (< 0.5) | ND (< 0.5) | 10 | ND (< 0.5) | 2.4 | ND (< 0.5) | CBMA = 105 ; CHLFM = 1.4 |
| F131A1 | | 9/12/1996 | ND (< 0.5) | 11 | 7.7 | 0.88 | 3.7 | ND (< 0.5) | ND (< 0.5) | 9.9 | ND (< 0.5) | 2.3 | ND (< 0.5) | CBMA = 107 ; CHLFM = 1.5 ; MC = 1 |
| F131A1 | | 12/13/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F131A1 | Dup | 12/13/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F131A1 | | 3/6/1997 | ND (< 0.5) | 9.4 | 7.5 | 1.3 | 2.7 | 0.97 | ND (< 0.5) | 9.1 | ND (< 0.5) | 0.73 | ND (< 0.5) | CBMA = 104 ; CHLFM = 1.2 |
| F131A1 | | 6/6/1997 | ND (< 0.5) | 14 | 15 | 2 | 5.6 | 0.8 | ND (< 0.5) | 13 | ND (< 0.5) | 3.7 | ND (< 0.5) | CBMA = 104 ; CHLFM = 1.7 |
| F131A1 | | 9/11/1997 | ND (< 0.5) | 15 | 13 | 1.1 | 7.4 | 0.69 | ND (< 0.5) | 7 | ND (< 0.5) | 6.6 | ND (< 0.5) | CBMA = 106 ; CHLFM = 1.4 ; Freon 11 = 0.77 |
| F131A1 | Dup | 9/11/1997 | ND (< 0.5) | 16 | 13 | 1.4 | 7.5 | 0.64 | ND (< 0.5) | 7.1 | ND (< 0.5) | 6.6 | ND (< 0.5) | CBMA = 108 ; CHLFM = 1.5 ; Freon 11 = 0.79 |
| F131A1 | | 12/3/1997 | ND (< 0.5) | 6.6 | 6.1 | 0.64 | 3 | ND (< 0.5) | ND (< 0.5) | 3.8 | ND (< 0.5) | 1.1 | ND (< 0.5) | CBMA = 95 |
| F131A1 | Dup | 12/3/1997 | ND (< 0.5) | 8.4 | 7.4 | 0.73 | 3.4 | ND (< 0.5) | ND (< 0.5) | 4.7 | ND (< 0.5) | 1.4 | ND (< 0.5) | CBMA = 122 |
| F131A1 | | 6/4/1998 | ND (< 0.5) | 1.4 | 0.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F131A1 | | 12/9/1998 | ND (< 0.5) | 0.962 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97.3 |
| F131A1 | | 6/9/1999 | ND (< 0.500) | 3.49 | 1.47 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 1.02 | ND (< 0.500) | 0.593 | ND (< 0.500) | |
| F131A1 | | 12/14/1999 | ND (< 0.5) | 7.43 | 1.84 | ND (< 0.5) | 1.11 | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | 1.42 | ND (< 0.5) | |
| F131A1 | | 6/6/2000 | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F131A1 | | 12/5/2000 | ND (< 0.50) | 3.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F131A1 | | 6/19/2001 | ND (< 0.50) | 13 | 0.78 | ND (< 0.50) | 0.60 | ND (< 0.50) | ND (< 0.50) | 0.61 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F131A1 | | 6/25/2003 | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F131A1 | | 6/22/2005 | ND (< 0.50) | 40 | 2.4 | 0.78 | 4.0 | ND (< 0.50) | ND (< 0.50) | 2.6 | ND (< 0.50) | 5.1 | ND (< 0.50) | |
| F131A1 | | 7/5/2007 | ND (< 0.50) | 16 | 10 | 5.5 | 6.6 | ND (< 0.50) | ND (< 0.50) | 7.3 | ND (< 0.50) | 4.5 | ND (< 0.50) | |
| F131A1 | | 12/12/2008 | ND (< 0.50) | 8.8 | 5.6 | 4.2 | 4.5 | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | 2.5 | ND (< 0.50) | |
| F131A1 | | 6/11/2009 | ND (< 0.50) | 11 | 9.1 | 4.8 | 5.4 | ND (< 0.50) | ND (< 0.50) | 4.9 | ND (< 0.50) | 2.1 | ND (< 0.50) | |
| F131A1 | | 6/15/2011 | ND (< 0.50) | 13 | 1.6 | 0.97 | 3.0 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | 1.8 | 0.55 | |
| F131A1 | | 6/20/2013 | ND (< 0.50) | 10 | 0.88 | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | 0.78 | ND (< 0.50) | 1.2 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F132A2 | | 12/10/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 12/18/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F132A2 | | 3/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 9/17/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F132A2 | | 3/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 6/13/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F132A2 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F132A2 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F132A2 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F132A2 | | 6/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F132A2 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F132A2 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 ; MC = 0.76 |
| F132A2 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F132A2 | Dup | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97.3 |
| F132A2 | | 6/10/1999 | ND (< 0.500) | 16.7 | 2.10 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.824 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F132A2 | | 7/29/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F132A2 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F132A2 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F132A2 | Dup | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F132A2 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F133B | | 12/17/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 12 ; CHLFM = 8.8 |
| F133B | | 3/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 7.6 ; BRFM = 1.3 ; CHLFM = 18 ; DBCM = 6.9 |
| F133B | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.8 ; CHLFM = 10 ; DBCM = 2.8 |
| F133B | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 6 ; CHLFM = 13 ; DBCM = 5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F133B | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 9.9 |
| F133B | | 3/4/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.4 ; CHLFM = 10 ; DBCM = 3.2 |
| F133B | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 4.8 ; CHLFM = 11 ; DBCM = 3.6 |
| F133B | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 7.7 |
| F133B | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.7 ; CHLFM = 6.4 ; DBCM = 2.2 |
| F133B | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F133B | | 6/7/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.1 ; CBMA = 117 ; CHLFM = 3.6 ; DBCM = 1.7 |
| F133B | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F133B | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.97 ; CBMA = 101 ; CHLFM = 0.54 ; DBCM = 0.85 |
| F133B | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F133B | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F133B | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F133B | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F133B | | 6/18/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F133B | | 9/17/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F133B | | 6/16/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F133B | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F133B | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F134A1 | | 12/17/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F134A1 | | 3/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.8 |
| F134A1 | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F134A1 | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| F134A1 | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F134A1 | Dup | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F134A1 | | 3/4/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 |
| F134A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.84 |
| F134A1 | | 9/7/1994 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F134A1 | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F134A1 | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | Dup | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F134A1 | | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | Dup | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F134A1 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F134A1 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F134A1 | | 3/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| F134A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F134A1 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| F134A1 | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F134A1 | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F134A1 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| F134A1 | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F134A1 | Dup | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F134A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F134A1 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F134A1 | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F134A1 | Dup | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F135A1 | | 12/15/1992 | ND (< 5) | 84 | 5.2 | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F135A1 | | 3/11/1993 | ND (< 0.5) | 96 | 12 | 1.5 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.6 |
| F135A1 | Dup | 3/11/1993 | ND (< 0.5) | 93 | 11 | 1.3 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.4 |
| F135A1 | | 6/15/1993 | ND (< 0.5) | 300 | 37 | 2.9 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F135A1 | | 9/14/1993 | ND (< 0.5) | 310 | 42 | 4.3 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| F135A1 | Dup | 9/14/1993 | ND (< 0.5) | 330 | 42 | 4 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 3.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F135A1 | | 12/13/1993 | ND (< 5) | 330 | 38 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F135A1 | | 3/10/1994 | ND (< 1) | 330 | 40 | 5.2 | - | ND (< 1) | ND (< 1) | 3.3 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.2 |
| F135A1 | | 6/10/1994 | ND (< 1) | 430 | 71 | 5.8 | - | ND (< 1) | ND (< 1) | 5.4 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.7 |
| F135A1 | | 9/7/1994 | ND (< 0.5) | 410 | 47 | 3.8 | - | ND (< 0.5) | ND (< 0.5) | 4.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| F135A1 | | 12/12/1994 | ND (< 5) | 420 | 29 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F135A1 | | 3/7/1995 | ND (< 0.5) | 110 | 8 | 1.2 | - | 0.59 | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1,1,2-TCA = 0.52 ; CHLFM = 0.57 |
| F135A1 | | 6/6/1995 | ND (< 2.5) | 390 | 47 | 4.1 | - | ND (< 2.5) | ND (< 2.5) | 3.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F135A1 | | 9/7/1995 | ND (< 2.5) | 59 | 6.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F135A1 | | 12/8/1995 | ND (< 5) | 180 | 19 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F135A1 | | 3/7/1996 | ND (< 2.5) | 150 | 19 | ND (< 2.5) | 5.9 | ND (< 2.5) | ND (< 2.5) | 2.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F135A1 | | 6/10/1996 | ND (< 5) | 250 | 34 | ND (< 5) | 19 | ND (< 5) | ND (< 5) | 6.5 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 115 |
| F135A1 | | 9/12/1996 | ND (< 1.2) | 89 | 11 | 2.4 | 6.3 | ND (< 1.2) | ND (< 1.2) | 3.6 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 105 ; MC = 1.4 |
| F135A1 | | 12/13/1996 | ND (< 5) | 19 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F135A1 | | 3/6/1997 | ND (< 2.5) | 99 | 10 | 2.9 | 8.5 | ND (< 2.5) | ND (< 2.5) | 5.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 100 |
| F135A1 | | 6/6/1997 | ND (< 1.2) | 89 | 11 | 2.4 | NA | ND (< 1.2) | ND (< 1.2) | 3.6 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 105 ; MC = 1.4 |
| F135A1 | Dup | 6/6/1997 | ND (< 2.5) | 91 | 12 | 3.2 | 5 | ND (< 2.5) | ND (< 2.5) | 5.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 97 |
| F135A1 | | 9/12/1997 | ND (< 2.5) | 94 | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 2.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 98 |
| F135A1 | | 12/3/1997 | ND (< 2.5) | 87 | 8.2 | ND (< 2.5) | 4 | ND (< 2.5) | ND (< 2.5) | 2.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 92 |
| F135A1 | | 6/2/1998 | ND (< 5) | 130 | 8.3 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 112 |
| F135A1 | | 12/9/1998 | ND (< 2.5) | 128 | 13.7 | 2.94 | 8.51 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 104 |
| F135A1 | | 6/9/1999 | ND (< 10.0) | 115 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| F135A1 | | 12/7/1999 | ND (< 2.5) | 80.5 | 4.63 | ND (< 2.5) | 4.54 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F135A1 | | 1/28/2000 | ND (< 1.67) | 68.8 | 3.18 | ND (< 1.67) | 4.28 | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | ND (< 1.67) | |
| F135A1 | | 6/6/2000 | ND (< 2.5) | 100 | 3.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F135A1 | | 12/6/2000 | ND (< 1.0) | 69 | 2.1 | ND (< 1.0) | 2.8 | ND (< 1.0) | ND (< 1.0) | 1.3 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F135A1 | | 6/20/2001 | ND (< 1.0) | 79 | 2.4 | 1.1 | 2.7 | ND (< 1.0) | ND (< 1.0) | 1.6 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| F135A1 | | 6/24/2003 | ND (< 0.50) | 35 | 0.73 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F135A1 | | 6/21/2005 | ND (< 0.50) | 68 | 1.9 | 0.97 | 2.7 | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F135A1 | | 6/14/2007 | ND (< 0.50) | 95 | 2.6 | 1.2 | 3.6 | ND (< 0.50) | ND (< 0.50) | 4.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F135A1 | | 6/15/2009 | ND (< 0.50) | 76 | 1.6 | 0.74 | 2.3 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F135A1 | | 6/15/2011 | ND (< 0.50) | 70 | 1.6 | 0.98 | 2.8 | ND (< 0.50) | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F135A1 | | 6/20/2013 | ND (< 0.50) | 69 | 1.6 | 0.76 | 2.2 | ND (< 0.50) | ND (< 0.50) | 3.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F136A1 | | 12/15/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F136A1 | | 3/11/1993 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | | 6/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F136A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F136A1 | Dup | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F136A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F136A1 | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F136A1 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F136A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F136A1 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F136A1 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F136A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | Dup | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F136A1 | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F136A1 | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F136A1 | Dup | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F136A1 | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F136A1 | Dup | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F136A1 | | 6/22/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F136A1 | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F136A1 | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F136A1 | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F136A1 | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| F137A1 | | 1/7/1991 | 0.2 | 1.5 | 22 | 7 | 12 | 1.1 | 0.5 | - | - | 9.4 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 11 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 2.9 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F137A1 | | 2/5/1991 | 0.2 | 0.5 | 7.7 | 3 | 11 | 0.6 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 8.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 2.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| F137A1 | | 7/26/1991 | ND (< 0.5) | 1.3 | 8.6 | 3.8 | - | 0.7 | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 15 ; Freon 11 = 1.8 |
| F137A1 | | 10/14/1991 | ND (< 0.5) | 1.4 | 9.2 | 4.3 | - | 0.8 | ND (< 0.5) | 4.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 16 ; Freon 11 = 1.6 |
| F137A1 | | 12/9/1991 | ND (< 5) | ND (< 5) | ND (< 5) | 6.6 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 20 |
| F137A1 | | 3/12/1992 | ND (< 0.5) | 1.4 | 8.4 | 4.3 | - | 0.8 | ND (< 0.5) | 4.3 | ND (< 0.5) | 1 | ND (< 0.5) | CHLFM = 28 ; Freon 11 = 2.6 |
| F137A1 | | 6/15/1992 | ND (< 0.5) | 1.1 | 6.8 | 4 | - | 0.6 | ND (< 0.5) | 4.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.1 ; CHLFM = 12 |
| F137A1 | | 9/23/1992 | ND (< 0.5) | 1.1 | 8.4 | 3.9 | - | 0.7 | ND (< 0.5) | 6.3 | ND (< 0.5) | 0.5 | ND (< 0.5) | CHLEA = 1 ; CHLFM = 5.2 |
| F137A1 | | 12/17/1992 | ND (< 5) | ND (< 5) | 6.2 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F137A1 | | 3/10/1993 | ND (< 0.5) | 1.2 | 7 | 4.3 | - | 0.7 | ND (< 0.5) | 5.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.3 ; CHLFM = 4.9 |
| F137A1 | Dup | 3/10/1993 | ND (< 0.5) | 1 | 6.8 | 4 | - | 0.7 | ND (< 0.5) | 4.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.3 ; CHLFM = 4.6 |
| F137A1 | | 6/8/1993 | ND (< 0.5) | ND (< 0.5) | 6.6 | 2.1 | - | ND (< 0.5) | ND (< 0.5) | 3.1 | ND (< 0.5) | 0.8 | ND (< 0.5) | CHLFM = 8 |
| F137A1 | | 9/14/1993 | ND (< 0.5) | 3.8 | 11 | 2 | - | ND (< 0.5) | ND (< 0.5) | 2.4 | ND (< 0.5) | 12 | ND (< 0.5) | CHLEA = 0.66 ; CHLFM = 17 ; Freon 11 = 1.3 |
| F137A1 | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 23 |
| F137A1 | | 3/9/1994 | ND (< 0.5) | 1.8 | 5.4 | 3.2 | - | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | 2.7 | ND (< 0.5) | CHLFM = 24 ; Freon 11 = 1.6 |
| F137A1 | Dup | 3/9/1994 | ND (< 0.5) | 2.5 | 5.2 | 3.2 | - | ND (< 0.5) | ND (< 0.5) | 3.9 | ND (< 0.5) | 2.6 | ND (< 0.5) | CHLFM = 24 ; Freon 11 = 1.6 |
| F137A1 | | 6/6/1994 | ND (< 0.5) | 2.1 | 5.7 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | 1.4 | ND (< 0.5) | CHLEA = 0.55 ; CHLFM = 22 ; Freon 11 = 1.2 |
| F137A1 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 9.9 |
| F137A1 | | 6/7/1995 | ND (< 0.5) | 4.8 | 4.9 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | 1.8 | ND (< 0.5) | CHLFM = 23 ; Freon 11 = 1.3 |
| F137A1 | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 21 |
| F137A1 | | 6/10/1996 | ND (< 0.5) | 12 | 4.2 | 2 | 9.2 | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | 2.1 | ND (< 0.5) | CBMA = 122 ; CHLFM = 22 ; Freon 11 = 1 |
| F137A1 | | 12/12/1996 | ND (< 5) | 8.5 | ND (< 5) | ND (< 5) | 5.7 | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 21 ; MC = 5.2 |
| F137A1 | | 6/26/2008 | ND (< 10) | 200 | 930 | 18 | 57 | ND (< 10) | ND (< 10) | 85 | ND (< 10) | 400 | ND (< 10) | |
| F137A1 | | 6/11/2009 | 5.4 | 93 | 220 | 3.1 | 20 | ND (< 2.5) | ND (< 2.5) | 23 | ND (< 2.5) | 85 | ND (< 2.5) | |
| F137A1 | | 6/15/2011 | 6.3 | 43 | 36 | 5.2 | 7.2 | ND (< 0.50) | ND (< 0.50) | 8.9 | ND (< 0.50) | 29 | ND (< 0.50) | |
| F137A1 | | 3/5/2012 | 4.9 | 36 | 21 | 1.4 | 5.3 | ND (< 0.50) | ND (< 0.50) | 5.6 | ND (< 0.50) | 19 | ND (< 0.50) | |
| F137A1 | | 6/13/2012 | 5.4 | 42 | 26 | 1.4 | 4.1 | ND (< 0.50) | ND (< 0.50) | 6.5 | ND (< 0.50) | 19 | ND (< 0.50) | |
| F137A1 | | 6/20/2013 | 3.1 | 22 | 11 | 5.8 | 7.0 | ND (< 0.50) | ND (< 0.50) | 13 | ND (< 0.50) | 7.6 | ND (< 0.50) | |
| F137A1 | | 6/11/2014 | 4.5 | 23 | 9.6 | 1.3 | 2.6 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | 6.5 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F138A1U | | 3/7/1996 | ND (< 0.5) | 4.7 | 4.2 | 8.7 | 3.6 | ND (< 0.5) | ND (< 0.5) | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 1.6 ; CHLFM = 36 |
| F138A1U | | 6/10/1996 | ND (< 0.5) | 3.3 | ND (< 0.5) | 8.4 | 3.4 | ND (< 0.5) | ND (< 0.5) | 4.6 | ND (< 0.5) | ND (< 0.5) | 0.75 | CBMA = 117 ; CHLEA = 2.3 ; CHLFM = 20 ; MC = 7.6 |
| F138A1U | | 9/11/1996 | ND (< 0.5) | 0.81 | ND (< 0.5) | 0.69 | 1.4 | ND (< 0.5) | ND (< 0.5) | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 ; CHLEA = 3.3 ; CHLMA = 2 ; MC = 17 |
| F138A1U | | 12/13/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F138A1U | | 3/5/1997 | ND (< 0.5) | 1.1 | ND (< 0.5) | 2.9 | 2.2 | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | 0.57 | CBMA = 90 ; CHLEA = 1.3 ; MC = 0.65 |
| F138A1U | | 6/4/1997 | ND (< 0.5) | 3 | ND (< 0.5) | 7 | 4.1 | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | ND (< 0.5) | 0.75 | CBMA = 109 ; CHLEA = 1.5 ; MC = 0.73 |
| F138A1U | | 9/10/1997 | ND (< 0.5) | 1.3 | ND (< 0.5) | 4.1 | 0.65 | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 ; MC = 1.4 |
| F138A1U | | 12/3/1997 | ND (< 0.5) | 1.7 | ND (< 0.5) | 4.3 | 2.3 | ND (< 0.5) | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F138A1U | | 6/2/1998 | ND (< 0.5) | 1.4 | ND (< 0.5) | 6.4 | 3.4 | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 119 ; MC = 0.56 |
| F138A1U | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.63 | 0.86 | ND (< 0.5) | ND (< 0.5) | 1.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| F138A1U | | 6/9/1999 | ND (< 0.500) | 1.28 | 0.801 | 4.12 | 5.16 | ND (< 0.500) | ND (< 0.500) | 3.15 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F138A1U | | 12/14/1999 | ND (< 0.5) | 2.67 | 0.851 | 2.45 | 2.15 | ND (< 0.5) | ND (< 0.5) | 1.02 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F138A1U | | 6/8/2000 | ND (< 0.50) | 5.7 | 5.6 | 7.4 | 11 | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F138A1U | | 12/6/2000 | ND (< 0.50) | 2.4 | ND (< 0.50) | 7.3 | 8.1 | ND (< 0.50) | ND (< 0.50) | 3.4 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F138A1U | | 6/20/2001 | ND (< 0.50) | 1.6 | ND (< 0.50) | 7.4 | 7.1 | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F138A1U | | 6/27/2002 | ND (< 0.50) | 6.8 | ND (< 0.50) | 7.9 | 9.7 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | ND (< 0.50) | 0.57 | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F138A1U | | 6/25/2003 | ND (< 0.50) | 8.2 | 3.9 | 5.8 | 8.6 | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 0.50) | 0.83 | |
| F138A1U | | 6/25/2004 | ND (< 0.50) | 6.2 | 2.1 | 4.8 | 7.1 | ND (< 0.50) | ND (< 0.50) | 4.0 | ND (< 0.50) | ND (< 0.50) | 1.6 | |
| F138A1U | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.73 | 1.1 | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F138A1U | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 0.50) | 0.50 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F138A1U | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | 0.80 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F138A1U | | 6/12/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.68 | 1.2 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F138A1U | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.65 | 0.79 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | 0.64 | |
| F138A1U | Dup | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.65 | 0.56 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | 0.64 | |
| F138A1U | | 6/8/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.65 | 1.2 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F138A1U | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | 1.4 | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | ND (< 0.50) | 2.3 | |
| F138A1U | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | 2.5 | ND (< 0.50) | ND (< 0.50) | 5.5 | ND (< 0.50) | ND (< 0.50) | 1.7 | |
| F138A1U | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | 1.6 | ND (< 0.50) | ND (< 0.50) | 4.3 | ND (< 0.50) | ND (< 0.50) | 4.0 | |
| F138A1U | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | 1.9 | ND (< 0.50) | ND (< 0.50) | 6.4 | ND (< 0.50) | ND (< 0.50) | 2.8 | |
| | | | | | | | | | | | | | | |
| F139A1 | | 3/4/1996 | ND (< 0.5) | 2.4 | 1.5 | 2.5 | 0.98 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 31 |
| F139A1 | | 6/7/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 ; MC = 0.68 |
| F139A1 | | 9/11/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.89 | 0.91 | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F139A1 | Dup | 9/11/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.83 | 0.86 | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F139A1 | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Toluene = 6.7 |
| F139A1 | | 3/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F139A1 | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.95 | 0.77 | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F139A1 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | 1.1 | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 118 |
| F139A1 | | 12/3/1997 | ND (< 0.5) | 0.65 | ND (< 0.5) | 1.2 | 0.91 | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| F139A1 | | 6/2/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F139A1 | | 12/8/1998 | ND (< 0.5) | 0.764 | ND (< 0.5) | 3.08 | 2.16 | ND (< 0.5) | ND (< 0.5) | 4.28 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; CHLEA = 1.85 |
| F139A1 | | 6/9/1999 | ND (< 0.500) | 0.512 | ND (< 0.500) | 2.14 | 1.18 | ND (< 0.500) | ND (< 0.500) | 1.96 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F139A1 | | 12/14/1999 | ND (< 0.5) | 1.19 | ND (< 0.5) | 3.36 | 2.37 | ND (< 0.5) | ND (< 0.5) | 2.15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F139A1 | | 6/8/2000 | ND (< 0.50) | 0.64 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F139A1 | | 12/6/2000 | ND (< 0.50) | 1.1 | ND (< 0.50) | 2.9 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F139A1 | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.63 | 0.84 | ND (< 0.50) | ND (< 0.50) | 0.93 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F139A1 | | 6/27/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/25/2003 | ND (< 0.50) | 1.2 | ND (< 0.50) | 1.7 | 1.5 | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/25/2004 | ND (< 0.50) | 2.0 | 0.78 | 0.78 | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.64 |
| F139A1 | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 8.1 |
| F139A1 | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/12/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | Dup | 6/12/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/8/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | Dup | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 4.9 |
| F139A1 | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F139A1 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F140A1 | | 3/7/1996 | ND (< 0.5) | ND (< 0.5) | 2.1 | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F140A1 | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | 1.7 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F140A1 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | 1.7 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F140A1 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F140A1 | | 3/6/1997 | ND (< 0.5) | 0.8 | 4.4 | 2.6 | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F140A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | 1.4 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 89 |
| F140A1 | | 9/9/1997 | ND (< 0.5) | 0.68 | 4 | 3.3 | 0.99 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F140A1 | | 12/3/1997 | ND (< 0.5) | 0.93 | 3.1 | 2.3 | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F140A1 | | 6/2/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 119 |
| F140A1 | | 12/8/1998 | ND (< 0.5) | 0.97 | 3.88 | 2.68 | 1.01 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F140A1 | | 6/9/1999 | ND (< 0.500) | 0.928 | 3.40 | 2.71 | 0.880 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F140A1 | | 12/14/1999 | ND (< 0.5) | 0.807 | 2.15 | 1.77 | 0.513 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F140A1 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | 1.3 | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F140A1 | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F140A1 | | 6/20/2001 | ND (< 0.50) | 1.3 | 2.8 | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F140A1 | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F140A1 | | 6/20/2005 | ND (< 0.50) | 1.7 | 2.0 | 3.1 | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F140A1 | | 6/14/2007 | ND (< 0.50) | 2.8 | 3.0 | 3.3 | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F140A1 | | 6/15/2009 | ND (< 0.50) | 2.6 | 3.0 | 2.4 | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F140A1 | | 6/15/2011 | ND (< 0.50) | 3.4 | 1.0 | 3.5 | 0.89 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F140A1 | | 6/20/2013 | ND (< 0.50) | 2.3 | ND (< 0.50) | 3.6 | 0.66 | ND (< 0.50) | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F141A1U | | 12/4/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | Dup | 12/4/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | | 3/11/1993 | ND (< 0.5) | 0.8 | 0.6 | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 6/15/1993 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 9/13/1993 | 1.2 | ND (< 0.5) | ND (< 0.5) | 0.78 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 40 |
| F141A1U | | 3/4/1994 | ND (< 0.5) | 1.7 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | Dup | 3/4/1994 | ND (< 0.5) | 2.1 | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 0.51 |
| F141A1U | | 6/9/1994 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 9/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | | 3/6/1995 | ND (< 0.5) | 2.3 | ND (< 0.5) | 0.52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 6/5/1995 | ND (< 0.5) | 1.4 | ND (< 0.5) | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 9/5/1995 | ND (< 0.5) | 2 | ND (< 0.5) | 0.98 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 12/6/1995 | ND (< 0.5) | 1.3 | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 2/22/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | Dup | 2/22/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | | 3/5/1996 | ND (< 0.5) | 2.2 | ND (< 0.5) | 0.84 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 6/6/1996 | ND (< 0.5) | 1.5 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| F141A1U | | 9/10/1996 | ND (< 0.5) | 1.4 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F141A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | Dup | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F141A1U | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F141A1U | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F141A1U | | 9/9/1997 | ND (< 0.5) | 0.68 | ND (< 0.5) | 0.78 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| F141A1U | | 12/8/1997 | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 ; MC = 0.51 |
| F141A1U | Dup | 12/8/1997 | ND (< 0.5) | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 ; MC = 0.57 |
| F141A1U | | 6/5/1998 | ND (< 0.5) | 1.1 | ND (< 0.5) | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F141A1U | | 12/11/1998 | ND (< 0.5) | 2.63 | ND (< 0.5) | 1.09 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95.7 |
| F141A1U | | 6/9/1999 | 0.847 | 2.15 | ND (< 0.500) | 1.10 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F141A1U | | 12/7/1999 | ND (< 0.5) | 1.47 | ND (< 0.5) | 1.18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F141A1U | | 6/7/2000 | ND (< 0.50) | 1.1 | ND (< 0.50) | 0.72 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 12/8/2000 | ND (< 0.50) | 1.7 | ND (< 0.50) | 0.98 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F141A1U | | 6/21/2001 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F141A1U | | 6/26/2002 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/26/2003 | ND (< 0.50) | 1.1 | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 8/31/2004 | ND (< 0.50) | 0.92 | ND (< 0.50) | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 8/31/2004 | ND (< 0.50) | 0.90 | ND (< 0.50) | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/21/2005 | ND (< 0.50) | 0.97 | ND (< 0.50) | 0.71 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/27/2006 | ND (< 0.50) | 0.80 | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/14/2007 | ND (< 0.50) | 0.91 | ND (< 0.50) | 0.70 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/10/2008 | ND (< 0.50) | 1.0 | ND (< 0.50) | 0.73 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/15/2009 | ND (< 0.50) | 0.91 | ND (< 0.50) | 0.57 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/9/2010 | ND (< 0.50) | 0.69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/15/2011 | ND (< 0.50) | 0.77 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/14/2012 | ND (< 0.50) | 0.75 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/19/2013 | ND (< 0.50) | 0.72 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 11/13/2013 | ND (< 0.50) | 1.1 | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 2/25/2014 | ND (< 0.50) | 1.2 | ND (< 0.50) | 0.57 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F141A1U | Dup | 2/25/2014 | ND (< 0.50) | 1.2 | ND (< 0.50) | 0.59 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 5/13/2014 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 6/10/2014 | ND (< 0.50) | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F141A1U | | 8/13/2014 | ND (< 0.50) | 0.98 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F142A1 | | 12/4/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 11 |
| F142A1 | | 3/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 6/15/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 9/13/1993 | ND (< 0.5) | 5.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F142A1 | | 3/4/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 9/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 12/9/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F142A1 | | 3/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F142A1 | | 3/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 122 |
| F142A1 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F142A1 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F142A1 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F142A1 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 90 |
| F142A1 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 120 |
| F142A1 | | 12/8/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 ; MC = 0.53 |
| F142A1 | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F142A1 | | 12/10/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F142A1 | | 6/9/1999 | 0.653 | 0.955 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F142A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F142A1 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F142A1 | | 6/21/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F142A1 | | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/26/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/18/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/10/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | Dup | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | Dup | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 11/13/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 2/25/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 5/13/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F142A1 | | 8/13/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F143A1U | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| F143A1U | | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | 2.5 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | Dup | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | 2.4 | 1.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | 2.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 9/9/1993 | ND (< 0.5) | ND (< 0.5) | 3.1 | 0.95 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F143A1U | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F143A1U | | 3/3/1994 | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | Dup | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 9/7/1994 | ND (< 0.5) | 1.5 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F143A1U | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F143A1U | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F143A1U | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F143A1U | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F143A1U | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | 2.1 | ND (< 0.5) | 0.61 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F143A1U | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| F143A1U | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | 4.5 | ND (< 0.5) | 0.81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 87 |
| F143A1U | | 12/3/1997 | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F143A1U | | 12/9/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98.7 |
| F143A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F143A1U | | 12/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F143A1U | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F143A1U | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F143A1U | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F143A1U | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F143A1U | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F143A1U | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F143A1U | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F143A1U | Dup | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F144A2 | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 39 |
| F144A2 | | 3/12/1993 | ND (< 0.5) | 0.7 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 29 |
| F144A2 | | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 14 |
| F144A2 | Dup | 6/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 14 |
| F144A2 | | 9/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3 |
| F144A2 | | 12/10/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F144A2 | | 3/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.6 |
| F144A2 | | 6/2/1994 | ND (< 0.5) | 0.52 | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 |
| F144A2 | | 9/2/1994 | ND (< 0.5) | ND (< 0.5) | 0.51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| F144A2 | | 12/5/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F144A2 | | 3/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.78 |
| F144A2 | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| F144A2 | | 9/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F144A2 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F144A2 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F144A2 | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| F144A2 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F144A2 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F144A2 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F144A2 | | 6/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F144A2 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F144A2 | | 12/8/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 88 |
| F144A2 | Dup | 12/8/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 ; MC = 0.53 |
| F144A2 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F144A2 | | 12/9/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94.7 |
| F144A2 | | 6/9/1999 | ND (< 0.500) | 1.45 | 1.39 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F144A2 | | 12/14/1999 | ND (< 0.5) | 0.593 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F144A2 | | 6/6/2000 | ND (< 5.0) | 270 | 320 | 45 | 68 | ND (< 5.0) | ND (< 5.0) | 370 | 5.4 | 27 | ND (< 5.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F144A2 | | 9/7/2000 | ND (< 10) | 200 | 210 | 28 | 49 | ND (< 10) | ND (< 10) | 240 | ND (< 10) | 45 | ND (< 10) | |
| F144A2 | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F145A1 | | 12/21/1992 | 8.2 | 250 | 11 | 2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 6.1 | ND (< 0.5) | 3 | ND (< 0.5) | BDCHLMA = 12 ; BRFM = 2.4 ; CHLFM = 13 ; DBCM = 9.9 |
| F145A1 | Dup | 12/21/1992 | 7.4 | 280 | 12 | 2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 6.2 | ND (< 0.5) | 3 | ND (< 0.5) | BDCHLMA = 14 ; BRFM = 2 ; CHLFM = 14 ; DBCM = 10 |
| F145A1 | | 12/28/1992 | 8.2 | 250 | 11 | 2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 6.1 | ND (< 0.5) | 3 | ND (< 0.5) | BDCHLMA = 12 ; BRFM = 2.4 ; CHLFM = 13 ; DBCM = 9.9 |
| F145A1 | | 3/8/1993 | 7 | 320 | 24 | 4.6 | ND (< 5) | ND (< 1) | ND (< 1) | 8 | ND (< 1) | 2.6 | ND (< 1) | BDCHLMA = 1.8 ; CHLFM = 2 |
| F145A1 | | 6/14/1993 | 1.2 | 330 | 26 | 3.8 | ND (< 5) | ND (< 1) | ND (< 1) | 8.8 | ND (< 1) | 4.4 | ND (< 1) | |
| F145A1 | | 9/13/1993 | ND (< 1) | 250 | 55 | 5.2 | ND (< 5) | ND (< 1) | ND (< 1) | 73 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.5 |
| F145A1 | | 12/3/1993 | ND (< 5) | 150 | 8.4 | ND (< 5) | - | ND (< 5) | - | 8.3 | ND (< 5) | ND (< 5) | ND (< 10) | |
| F145A1 | | 3/10/1994 | ND (< 1) | 200 | 14 | 4.6 | - | ND (< 1) | ND (< 1) | 6 | ND (< 1) | 4.7 | ND (< 1) | |
| F145A1 | | 6/13/1994 | 1.3 | 440 | 25 | 5.3 | - | ND (< 1) | ND (< 1) | 9.8 | ND (< 1) | 4.7 | ND (< 1) | |
| F145A1 | | 9/9/1994 | 1.2 | 380 | 22 | 6.1 | - | 1.4 | ND (< 1) | 9.8 | ND (< 1) | 5 | ND (< 1) | 1,1,2-TCA = 1 ; MC = 1.1 |
| F145A1 | | 12/13/1994 | ND (< 5) | 270 | 20 | 5.1 | - | ND (< 5) | - | 7.8 | ND (< 5) | 7.4 | ND (< 10) | |
| F145A1 | | 3/7/1995 | 1.9 | 260 | 16 | 4.9 | - | ND (< 1) | ND (< 1) | 9.7 | ND (< 1) | 2.6 | ND (< 1) | |
| F145A1 | | 6/6/1995 | ND (< 5) | 360 | 24 | 5 | - | ND (< 5) | ND (< 5) | 11 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F145A1 | | 9/7/1995 | ND (< 5) | 370 | 29 | 7.5 | - | ND (< 5) | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | MC = 11 |
| F145A1 | | 12/8/1995 | ND (< 5) | 350 | 21 | 7 | ND (< 25) | ND (< 5) | - | 16 | ND (< 5) | 5.6 | ND (< 10) | |
| F145A1 | Dup | 12/8/1995 | ND (< 5) | 350 | 23 | 7.5 | ND (< 5) | ND (< 5) | - | 17 | ND (< 5) | 6.1 | ND (< 10) | |
| F145A1 | | 3/7/1996 | 14 | 330 | 27 | 8.4 | 18 | ND (< 5) | ND (< 5) | 16 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F145A1 | | 6/6/1996 | 2.3 | 340 | 22 | 7.9 | 30 | 1.2 | ND (< 0.5) | 18 | 0.8 | 6.2 | ND (< 0.5) | CBMA = 103 ; CHLFM = 2 ; MC = 0.69 |
| F145A1 | | 9/12/1996 | ND (< 5) | 220 | 18 | 6.6 | 14 | ND (< 5) | ND (< 5) | 21 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 106 ; MC = 14 |
| F145A1 | | 12/13/1996 | ND (< 10) | 240 | 11 | ND (< 10) | 12 | ND (< 10) | - | 18 | ND (< 10) | ND (< 10) | ND (< 20) | |
| F145A1 | | 3/6/1997 | ND (< 0.5) | 14 | 1.4 | 0.67 | 0.51 | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F145A1 | | 6/6/1997 | ND (< 10) | 260 | 25 | ND (< 10) | 21 | ND (< 10) | ND (< 10) | 33 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 104 |
| F145A1 | | 9/12/1997 | ND (< 5) | 330 | 28 | 7.9 | 25 | ND (< 5) | ND (< 5) | 52 | ND (< 5) | 6 | ND (< 5) | CBMA = 103 |
| F145A1 | | 12/5/1997 | ND (< 5) | 83 | 6.6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 25 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 92 |
| F145A1 | | 6/3/1998 | ND (< 5) | 83 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 19 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 |
| F145A1 | Dup | 6/3/1998 | ND (< 5) | 91 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 20 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 107 |
| F145A1 | | 12/10/1998 | ND (< 5) | 220 | 17.8 | ND (< 5) | 15.6 | ND (< 5) | ND (< 5) | 46.2 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 113 |
| F145A1 | Dup | 12/10/1998 | ND (< 5) | 234 | 18.1 | 5.48 | 16.2 | ND (< 5) | ND (< 5) | 47.6 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 119 |
| F145A1 | | 6/8/1999 | ND (< 10.0) | 288 | ND (< 10.0) | ND (< 10.0) | 16.7 | ND (< 10.0) | ND (< 10.0) | 39.1 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| F145A1 | | 1/28/2000 | ND (< 5) | 228 | 30.6 | ND (< 5) | 15 | ND (< 5) | ND (< 5) | 35.6 | ND (< 5) | ND (< 5) | ND (< 5) | |
| F145A1 | | 6/8/2000 | ND (< 10) | 130 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 40) | ND (< 10) | |
| F145A1 | | 12/8/2000 | ND (< 5.0) | 250 | 31 | 13 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 42 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| F145A1 | | 6/27/2003 | ND (< 2.0) | 150 | 21 | 2.5 | 7.1 | ND (< 2.0) | ND (< 2.0) | 14 | ND (< 2.0) | 2.5 | ND (< 2.0) | |
| F145A1 | | 6/20/2005 | 3.3 | 34 | 2.1 | 0.63 | 1.2 | ND (< 0.50) | ND (< 0.50) | 4.7 | 4.2 | ND (< 0.50) | ND (< 0.50) | |
| F145A1 | | 6/20/2007 | 4.3 | 160 | 18 | 2.9 | 8.9 | ND (< 2.0) | ND (< 2.0) | 21 | ND (< 2.0) | 3.3 | ND (< 2.0) | |
| F145A1 | | 6/10/2009 | 4.0 | 25 | 0.91 | 0.76 | 0.77 | ND (< 0.50) | ND (< 0.50) | 9.6 | 3.0 | ND (< 0.50) | ND (< 0.50) | |
| F145A1 | | 7/11/2011 | 5.7 | 25 | 1.0 | 1.0 | 0.95 | ND (< 0.50) | ND (< 0.50) | 4.4 | 2.8 | ND (< 0.50) | ND (< 0.50) | |
| F145A1 | | 6/17/2013 | 5.3 | 27 | 0.92 | 1.1 | 0.99 | ND (< 0.50) | ND (< 0.50) | 5.6 | 2.6 | ND (< 0.50) | ND (< 0.50) | |
| F145A1 | | 6/10/2014 | 3.1 | 68 | 7.0 | 2.3 | 5.2 | ND (< 0.50) | ND (< 0.50) | 16 | 0.63 | 0.90 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F146A1U | | 12/18/1992 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 5.2 ; CHLFM = 6.8 ; DBCM = 4.4 |
| F146A1U | | 12/28/1992 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 5.2 ; CHLFM = 6.8 ; DBCM = 4.4 |
| F146A1U | Dup | 12/28/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | | 3/11/1993 | ND (< 0.5) | 0.8 | 0.5 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 1.1 ; CHLFM = 6.4 |
| F146A1U | | 6/9/1993 | ND (< 0.5) | 1.4 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 9/9/1993 | ND (< 0.5) | 2.3 | ND (< 0.5) | 0.89 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.58 |
| F146A1U | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | Dup | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | | 3/8/1994 | ND (< 0.5) | 1.9 | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 6/10/1994 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 9/7/1994 | ND (< 0.5) | 2.5 | ND (< 0.5) | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | Dup | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | | 3/6/1995 | ND (< 0.5) | 2.6 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 6/2/1995 | ND (< 0.5) | 2.3 | ND (< 0.5) | 0.61 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 9/5/1995 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F146A1U | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| F146A1U | | 6/6/1996 | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F146A1U | | 9/10/1996 | ND (< 0.5) | 0.82 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F146A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F146A1U | | 3/4/1997 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F146A1U | | 6/4/1997 | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F146A1U | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F146A1U | | 12/4/1997 | ND (< 0.5) | 0.88 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F146A1U | | 6/3/1998 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F146A1U | | 12/9/1998 | ND (< 0.5) | 0.965 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| F146A1U | | 6/9/1999 | ND (< 0.500) | 0.683 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F146A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F146A1U | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F146A1U | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F147A1 | | 12/21/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 18 ; BRFM = 4.9 ; CHLFM = 25 ; DBCM = 18 |
| F147A1 | | 12/28/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 18 ; BRFM = 4.9 ; CHLFM = 25 ; DBCM = 18 |
| F147A1 | | 3/12/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 7.8 ; BRFM = 2.4 ; CHLFM = 10 ; DBCM = 8.1 |
| F147A1 | | 6/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 5.4 ; CHLFM = 7.3 ; DBCM = 5.3 |
| F147A1 | | 9/9/1993 | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 6 ; BRFM = 1.4 ; CHLFM = 7.1 ; DBCM = 6.4 |
| F147A1 | | 12/9/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 5.9 |
| F147A1 | | 3/3/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.1 ; CHLFM = 4.2 ; DBCM = 2.5 |
| F147A1 | Dup | 3/3/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.9 ; CHLFM = 4.3 ; DBCM = 2.1 |
| F147A1 | | 6/10/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.1 ; CHLFM = 2.6 ; DBCM = 0.88 |
| F147A1 | | 9/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.8 ; CHLFM = 0.77 |
| F147A1 | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F147A1 | | 3/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | | 12/4/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F147A1 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | Dup | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F147A1 | Dup | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F147A1 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| F147A1 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F147A1 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| F147A1 | | 6/6/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| F147A1 | Dup | 6/6/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| F147A1 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F147A1 | Dup | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; MC = 0.51 |
| F147A1 | | 12/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 86 |
| F147A1 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F147A1 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| F147A1 | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F147A1 | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F147A1 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F147A1 | | 12/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F148A1U | | 11/9/1995 | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| F148A1U | | 12/6/1995 | ND (< 5) | 8.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F148A1U | | 3/6/1996 | ND (< 0.5) | 10 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F148A1U | | 6/7/1996 | ND (< 0.5) | 7.6 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F148A1U | | 9/11/1996 | 0.66 | 7.8 | 1.1 | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; CHLFM = 0.55 |
| F148A1U | Dup | 9/11/1996 | 0.7 | 7 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.86 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F148A1U | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F148A1U | | 3/5/1997 | ND (< 0.5) | 4.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F148A1U | | 6/4/1997 | 0.68 | 8.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 ; CHLFM = 0.57 |
| F148A1U | | 9/10/1997 | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 ; MC = 0.74 |
| F148A1U | | 12/9/1997 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| F148A1U | | 6/4/1998 | ND (< 0.5) | 4.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| F148A1U | | 12/10/1998 | ND (< 0.5) | 2.48 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| F148A1U | | 6/9/1999 | 1.07 | 5.45 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.533 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F148A1U | | 12/7/1999 | 0.579 | 7.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.873 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F148A1U | | 1/28/2000 | 0.549 | 8.07 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.721 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F148A1U | | 6/7/2000 | ND (< 0.50) | 6.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F148A1U | | 12/8/2000 | ND (< 0.50) | 6.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F149A1U | | 11/9/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.82 |
| F149A1U | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F149A1U | | 3/5/1996 | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F149A1U | | 4/4/1996 | ND (< 0.5) | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F149A1U | | 6/6/1996 | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F149A1U | Dup | 6/6/1996 | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F149A1U | | 9/10/1996 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F149A1U | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F149A1U | Dup | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F149A1U | | 3/4/1997 | ND (< 0.5) | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| F149A1U | Dup | 3/4/1997 | ND (< 0.5) | 0.84 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| F149A1U | | 6/3/1997 | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F149A1U | | 9/9/1997 | ND (< 0.5) | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F149A1U | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| F149A1U | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| F149A1U | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| F149A1U | Dup | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 122 |
| F149A1U | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F149A1U | | 12/7/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F149A1U | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F149A1U | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F150A1 | | 11/9/1995 | ND (< 5) | 6.3 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| F150A1 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F150A1 | | 3/5/1996 | ND (< 0.5) | 3 | ND (< 0.5) | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.3 |
| F150A1 | | 6/6/1996 | ND (< 0.5) | 1.2 | ND (< 0.5) | 0.94 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 121 |
| F150A1 | | 9/11/1996 | ND (< 0.5) | 1.6 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| F150A1 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F150A1 | | 3/4/1997 | ND (< 0.5) | 1.3 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| F150A1 | | 6/4/1997 | ND (< 0.5) | 1.1 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; MC = 1.5 |
| F150A1 | | 9/9/1997 | ND (< 0.5) | 1.2 | ND (< 0.5) | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| F150A1 | | 12/2/1997 | ND (< 0.5) | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| F150A1 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| F150A1 | | 12/9/1998 | ND (< 0.5) | 1.12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| F150A1 | | 6/9/1999 | ND (< 0.500) | 1.02 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| F150A1 | | 12/7/1999 | ND (< 0.5) | 0.945 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F150A1 | Dup | 12/7/1999 | ND (< 0.5) | 1.05 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F150A1 | | 6/7/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F150A1 | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F151B | | 10/16/1995 | ND (< 0.5) | 0.81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.2 ; CHLFM = 27 |
| F151B | Dup | 10/16/1995 | ND (< 0.5) | 0.64 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.5 ; CHLFM = 23 |
| F151B | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 24 |
| F151B | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F151B | | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| F151B | | 9/11/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 |
| F151B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| F151B | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F151B | | 12/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| F151B | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| F151B | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| F151B | | 6/25/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F151B | | 6/22/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F151B | | 6/13/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F151B | | 6/15/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F151B | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F151B | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F155A1U | | 8/16/2011 | 4.3 | 54 | 11 | 3.1 | 2.8 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 2.7 | ND (< 0.50) | |
| F155A1U | Dup | 8/16/2011 | 4.8 | 53 | 11 | 2.8 | 2.7 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 2.9 | ND (< 0.50) | |
| F155A1U | | 9/30/2011 | 4.9 | 48 | 11 | 2.5 | 2.5 | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | 2.6 | ND (< 0.50) | |
| F155A1U | | 6/14/2012 | 3.4 | 41 | 7.2 | 1.8 | 1.4 | ND (< 0.50) | ND (< 0.50) | 8.7 | ND (< 0.50) | 2.2 | ND (< 0.50) | |
| F155A1U | | 6/21/2013 | 5.1 | 51 | 5.5 | 2.0 | 2.0 | ND (< 0.50) | ND (< 0.50) | 9.3 | ND (< 0.50) | 2.2 | ND (< 0.50) | |
| F155A1U | | 6/11/2014 | 3.4 | 38 | 3.8 | 0.62 | 0.74 | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | 1.3 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F156A1U | | 8/26/2011 | ND (< 0.50) | 130 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 13 | 0.70 | ND (< 0.50) | ND (< 0.50) | |
| F156A1U | | 9/29/2011 | ND (< 0.50) | 93 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 10 | 0.53 | ND (< 0.50) | ND (< 0.50) | |
| F156A1U | Dup | 9/29/2011 | ND (< 0.50) | 110 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 11 | 0.65 | ND (< 0.50) | ND (< 0.50) | |
| F156A1U | | 6/13/2012 | ND (< 0.50) | 91 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 8.5 | 0.50 | ND (< 0.50) | ND (< 0.50) | |
| F156A1U | | 6/18/2013 | ND (< 0.50) | 79 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 7.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F156A1U | | 6/11/2014 | ND (< 0.50) | 59 | 0.53 | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 8.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F159A1U | | 8/16/2011 | ND (< 0.50) | 11 | ND (< 0.50) | 0.66 | 0.71 | ND (< 0.50) | ND (< 0.50) | 39 | 2.5 | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | Dup | 8/16/2011 | ND (< 0.50) | 11 | ND (< 0.50) | 0.63 | 0.69 | ND (< 0.50) | ND (< 0.50) | 35 | 2.4 | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | | 9/30/2011 | ND (< 0.50) | 15 | ND (< 0.50) | 0.55 | 0.62 | ND (< 0.50) | ND (< 0.50) | 33 | 2.4 | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | | 6/12/2012 | ND (< 0.50) | 8.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 21 | 1.8 | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | Dup | 6/12/2012 | ND (< 0.50) | 7.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 21 | 1.7 | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | | 6/20/2013 | ND (< 0.50) | 9.2 | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 31 | 2.2 | ND (< 0.50) | ND (< 0.50) | |
| F159A1U | | 6/11/2014 | ND (< 0.50) | 7.6 | ND (< 0.50) | 0.61 | 0.57 | ND (< 0.50) | ND (< 0.50) | 33 | 2.6 | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F160A1U | | 8/17/2011 | 28 | 17 | 1.0 | 0.73 | 2.1 | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F160A1U | | 9/30/2011 | 37 | 24 | 1.5 | 0.81 | 2.7 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F160A1U | | 6/14/2012 | 37 | 20 | 1.1 | 0.72 | 2.1 | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F160A1U | | 6/18/2013 | 36 | 20 | 1.1 | 0.71 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F160A1U | | 6/11/2014 | 60 | 21 | 1.5 | 0.84 | 2.8 | ND (< 0.50) | ND (< 0.50) | 2.8 | 0.51 | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F161A1U | | 8/17/2011 | 0.62 | 12 | 0.79 | 0.62 | 1.3 | ND (< 0.50) | ND (< 0.50) | 0.61 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 9/30/2011 | 0.99 | 9.3 | ND (< 0.50) | ND (< 0.50) | 0.80 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 6/14/2012 | ND (< 0.50) | 10 | ND (< 0.50) | 0.64 | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 6/18/2013 | ND (< 0.50) | 12 | ND (< 0.50) | 0.67 | 1.2 | ND (< 0.50) | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 11/13/2013 | 0.88 | 14 | 0.50 | 0.91 | 1.8 | ND (< 0.50) | ND (< 0.50) | 0.95 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 2/25/2014 | 0.74 | 21 | 0.71 | 1.2 | 2.6 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 5/13/2014 | ND (< 0.50) | 14 | 0.50 | 0.85 | 2.0 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | Dup | 5/13/2014 | 0.59 | 17 | 0.68 | 1.1 | 2.0 | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 6/11/2014 | 0.86 | 20 | 0.68 | 1.1 | 2.3 | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | | 8/13/2014 | ND (< 0.50) | 15 | ND (< 0.50) | 0.87 | 2.2 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F161A1U | Dup | 8/13/2014 | ND (< 0.50) | 16 | ND (< 0.50) | 0.88 | 2.2 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F163A1 | | 8/17/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F163A1 | | 9/30/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F163A1 | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F163A1 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F163A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F164A1 | | 8/17/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F164A1 | | 9/30/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F164A1 | | 6/14/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F164A1 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F164A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F165A1 | | 8/26/2011 | 1.3 | 12 | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | 2.6 | 1.7 | ND (< 0.50) | 4.1 | ND (< 0.50) | 1,2,4-TCB = 25 |
| F165A1 | | 9/29/2011 | ND (< 0.50) | 6.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | Dup | 9/29/2011 | ND (< 0.50) | 6.9 | ND (< 0.50) | 0.51 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | | 3/5/2012 | ND (< 0.50) | 0.80 | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | | 6/13/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F165A1 | Dup | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F166A1 | | 2/1/2012 | ND (< 0.50) | 100 | 9.5 | 5.4 | 8.1 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 15 | ND (< 0.50) | |
| F166A1 | | 3/5/2012 | ND (< 0.50) | 120 | 9.1 | 5.2 | 8.2 | ND (< 0.50) | ND (< 0.50) | 10 | ND (< 0.50) | 16 | ND (< 0.50) | |
| F166A1 | | 6/13/2012 | ND (< 0.50) | 80 | 7.0 | 5.3 | 3.5 | ND (< 0.50) | ND (< 0.50) | 8.9 | ND (< 0.50) | 6.1 | ND (< 0.50) | |
| F166A1 | | 6/18/2013 | ND (< 0.50) | 140 | 11 | 5.4 | 7.0 | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | 13 | ND (< 0.50) | |
| F166A1 | | 6/11/2014 | ND (< 0.50) | 120 | 11 | 5.8 | 8.0 | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | 16 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| F167A1U | | 8/16/2011 | ND (< 0.50) | 190 | 93 | 8.2 | 27 | ND (< 0.50) | ND (< 0.50) | 49 | 0.54 | 50 | ND (< 0.50) | CHLFM = 1.1 |
| F167A1U | | 9/30/2011 | ND (< 2.5) | 230 | 94 | 9.8 | 27 | ND (< 2.5) | ND (< 2.5) | 46 | ND (< 2.5) | 56 | ND (< 2.5) | |
| F167A1U | | 6/14/2012 | ND (< 2.5) | 180 | 59 | 7.7 | 19 | ND (< 2.5) | ND (< 2.5) | 36 | ND (< 2.5) | 33 | ND (< 2.5) | |
| F167A1U | | 6/18/2013 | ND (< 2.5) | 170 | 52 | 8.6 | 20 | ND (< 2.5) | ND (< 2.5) | 40 | ND (< 2.5) | 26 | ND (< 2.5) | |
| F167A1U | | 6/11/2014 | ND (< 1.0) | 240 | 55 | 9.4 | 26 | ND (< 1.0) | ND (< 1.0) | 38 | ND (< 1.0) | 44 | ND (< 1.0) | |
| | | | | | | | | | | | | | | |
| F169A2 | | 3/29/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F169A2 | Dup | 3/29/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F169A2 | | 6/13/2012 | ND (< 0.50) | 0.66 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F169A2 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| F169A2 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| H1 | | 6/15/2011 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| H1 | Dup | 6/15/2011 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| M-1 | | 12/14/1990 | 4.3 | 56 | 110 | 8.6 | 12 | 3 | 10 | - | - | 76 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 4.8 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| M-1 | | 4/17/1991 | 9 | 110 | 210 | 14 | 0.5 | 1.3 | ND (< 0.5) | 60 | 0.5 | 200 | ND (< 0.5) | CHLFM = 8.9 ; Freon 11 = 2 |
| M-1 | | 5/3/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| M-1 | | 7/24/1991 | 8.1 | 150 | 170 | 10 | ND (< 0.5) | 1.1 | ND (< 0.5) | 72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 10 ; Freon 11 = 1.8 |
| M-1 | | 11/6/1991 | 9.2 | 130 | 120 | 12 | ND (< 0.5) | 1 | ND (< 0.5) | 75 | ND (< 0.5) | 84 | ND (< 0.5) | CHLFM = 14 ; Freon 11 = 3.5 |
| M-1 | | 12/6/1991 | ND (< 5) | 120 | 89 | 12 | - | ND (< 5) | - | - | ND (< 5) | 95 | ND (< 10) | CHLFM = 11 |
| M-1 | | 3/10/1992 | 5.2 | 86 | 74 | 9.7 | ND (< 5) | 1 | ND (< 0.5) | 62 | ND (< 0.5) | 47 | ND (< 0.5) | CHLEA = 1.1 ; CHLFM = 5.5 ; Freon 11 = 1.7 |
| M-1 | | 6/10/1992 | 4.3 | 70 | 46 | 7.8 | ND (< 1) | 0.6 | ND (< 0.5) | 46 | ND (< 0.5) | 38 | ND (< 0.5) | CHLEA = 1.3 ; CHLFM = 2.7 ; Freon 11 = 1.4 |
| M-1 | | 9/11/1992 | 4.9 | 100 | 120 | 6.8 | ND (< 2.5) | 1 | ND (< 0.5) | 49 | ND (< 0.5) | 100 | ND (< 0.5) | CHLFM = 3.8 ; Freon 11 = 1.7 |
| | | | | | | | | | | | | | | |
| M-2 | | 12/18/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.3 ; Ethylbenzene = 0.3 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; Xylenes = 0.9 |
| M-2 | Dup | 12/18/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.3 ; Ethylbenzene = 0.3 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; Xylenes = 0.9 |
| M-2 | | 2/5/1991 | 0.2 | 1.1 | 1.2 | 0.4 | 2.6 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| M-2 | | 4/15/1991 | ND (< 0.5) | 3 | 2 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M-2 | | 7/26/1991 | ND (< 0.5) | 7.9 | 3.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| M-3 | | 12/19/1990 | 1.5 | 9.6 | 3.2 | 2.5 | 20 | 0.6 | 2 | - | - | 3.6 | 0.6 | 1,1,2,2-TCA = 0.6 ; 1,1,2-TCA = 0.4 ; 1,2-DCPA = 0.4 ; 1,3-DCB = 2 ; 1,4-DCB = 2 ; 2-CVE = 0.8 ; Acetone = 30 ; BDCHLMA = 0.8 ; Benzene = 0.3 ; BRFM = 1 ; BRMA = 1 ; CHLBZ = 0.8 ; CHLEA = 1 ; CHLFM = 25 ; CHLMA = 1 ; cis-1,3-DCP = 0.6 ; CT = 0.6 ; DBCM = 0.8 ; EDB = 2 ; Ethylbenzene = 0.3 ; Freon 11 = 2.4 ; MC = 10 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 0.6 ; Xylenes = 0.9 |
| M-3 | | 4/15/1991 | 4 | 25 | 5 | 3 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | 2 | ND (< 0.5) | CHLFM = 29 ; Freon 11 = 8 |
| M-3 | | 7/24/1991 | 4.9 | 25 | 4.9 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | 2.3 | ND (< 0.5) | CHLFM = 21 ; Freon 11 = 7.1 |
| | | | | | | | | | | | | | | |
| MB-2 | | 9/17/1992 | ND (< 0.5) | 1.7 | ND (< 0.5) | 6 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 12/16/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| MB-2 | | 3/9/1993 | ND (< 0.5) | 1.6 | ND (< 0.5) | 5 | - | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 6/4/1993 | ND (< 0.5) | 0.9 | ND (< 0.5) | 3 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 9/10/1993 | ND (< 0.5) | 0.92 | ND (< 0.5) | 3.7 | - | ND (< 0.5) | ND (< 0.5) | 0.51 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | 5.2 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| MB-2 | | 3/9/1994 | ND (< 0.5) | 2 | ND (< 0.5) | 5.9 | - | ND (< 0.5) | ND (< 0.5) | 0.97 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 6/9/1994 | ND (< 0.5) | 1.4 | ND (< 0.5) | 5.7 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 9/7/1994 | ND (< 0.5) | 1.9 | 0.69 | 6.2 | - | ND (< 0.5) | ND (< 0.5) | 0.89 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | 5.2 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| MB-2 | | 3/3/1995 | ND (< 0.5) | 1.6 | ND (< 0.5) | 5 | - | ND (< 0.5) | ND (< 0.5) | 0.58 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 6/7/1995 | ND (< 0.5) | 1.7 | 0.68 | 3.8 | - | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 9/6/1995 | ND (< 0.5) | 1.5 | 1.6 | 3.6 | - | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.5 |
| MB-2 | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| MB-2 | | 3/6/1996 | ND (< 0.5) | 2.4 | 1.1 | 3 | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| MB-2 | | 6/7/1996 | ND (< 0.5) | 0.51 | 0.53 | 1.9 | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 119 |
| MB-2 | | 9/11/1996 | ND (< 0.5) | 0.87 | 0.58 | 2.2 | 3.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| MB-2 | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| MB-2 | | 3/5/1997 | ND (< 0.5) | 0.89 | ND (< 0.5) | 1.6 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| MB-2 | Dup | 3/5/1997 | ND (< 0.5) | 0.93 | ND (< 0.5) | 1.6 | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 120 |
| MB-2 | | 6/4/1997 | ND (< 0.5) | 0.81 | ND (< 0.5) | 1.6 | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| MB-2 | | 9/9/1997 | ND (< 0.5) | 0.93 | ND (< 0.5) | 1.6 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| MB-2 | | 12/8/1997 | ND (< 0.5) | 0.99 | ND (< 0.5) | 1.4 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| | | | | | | | | | | | | | | |
| O3A2 | | 12/6/1990 | 2 | 5 | 25 | 12 | 24 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 4.1 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 11 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| O3A2 | | 5/1/1991 | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O3A2 | | 7/22/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O3A2 | | 12/4/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| O4A2 | | 12/7/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O4A2 | | 4/12/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O4A2 | | 7/22/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O4A2 | | 12/4/1991 | ND (< 5) | ND (< 5) | 15 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O5A | | 12/14/1990 | - | - | - | - | - | - | - | - | - | - | - | Acetone = 30 ; Benzene = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; Xylenes = 0.9 |
| O5A | | 2/5/1991 | 0.2 | 0.5 | 11 | 3 | 8.4 | 0.7 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.6 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| O5A | | 8/1/1991 | ND (< 0.5) | ND (< 0.5) | 8.7 | 3.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| O5A | | 12/4/1991 | ND (< 5) | ND (< 5) | 14 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| O6A | | 12/5/1990 | 0.2 | 15 | 13 | 8 | 7.8 | 0.3 | 1 | - | - | 3.3 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 88 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 1.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O6A | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O6A | | 5/1/1991 | ND (< 1) | 36 | 21 | 13 | - | ND (< 1) | ND (< 1) | 1 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 3 |
| O6A | | 7/22/1991 | ND (< 0.5) | 42 | 25 | 13 | - | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | 3.1 | ND (< 0.5) | CHLFM = 1.6 |
| O6A | | 10/4/1991 | ND (< 0.5) | 23 | 15 | 8.2 | - | ND (< 0.5) | ND (< 0.5) | 2.9 | ND (< 0.5) | 1.2 | ND (< 0.5) | CHLFM = 1 |
| O6A | | 12/10/1991 | ND (< 5) | 34 | 16 | 11 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| O10A | | 12/14/1990 | 2 | 5 | 13 | 7.4 | 7.3 | 3 | 10 | - | - | 7.7 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| O10A | | 7/22/1991 | ND (< 10) | 74 | 3,000 | 250 | - | ND (< 10) | ND (< 10) | 2,200 | 14 | 660 | ND (< 10) | |
| O10A | | 12/4/1991 | ND (< 5) | 12 | 810 | 69 | ND (< 50) | ND (< 5) | - | - | ND (< 5) | 120 | ND (< 10) | |
| O10A | Dup | 12/4/1991 | ND (< 5) | ND (< 5) | 530 | 80 | ND (< 25) | ND (< 5) | - | - | ND (< 5) | 120 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| O11A | | 12/20/1990 | - | - | - | - | - | - | 10 | - | - | - | - | 1,2,4-TCB = 10 ; 1,3-DCB = 10 ; 1,4-DCB = 10 |
| O11A | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| | | | | | | | | | | | | | | |
| O13A | | 12/14/1990 | 2 | 68 | 640 | 120 | 140 | 3 | 10 | - | - | 320 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 270 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 9.5 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 4.9 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| O13A | Dup | 12/14/1990 | 2 | 120 | 1,700 | 98 | 140 | 3 | 10 | 1,720 | 40 | 220 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 400 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 9.6 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 74 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 5.4 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| O13A | | 2/5/1991 | 20 | 55 | 6,700 | 300 | 870 | 30 | 100 | - | - | 1,200 | 30 | 1,1,2,2-TCA = 30 ; 1,1,2-TCA = 20 ; 1,2-DCPA = 20 ; 1,3-DCB = 100 ; 1,4-DCB = 100 ; 2-CVE = 40 ; BDCHLMA = 40 ; BRFM = 50 ; BRMA = 50 ; CHLBZ = 40 ; CHLEA = 50 ; CHLFM = 20 ; CHLMA = 50 ; cis-1,3-DCP = 30 ; CT = 30 ; DBCM = 40 ; EDB = 100 ; Freon 11 = 50 ; MC = 500 ; trans-1,3-DCP = 30 |
| O13A | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O13A | | 5/1/1991 | ND (< 25) | 120 | 2,100 | 120 | - | ND (< 25) | ND (< 25) | 1,700 | ND (< 25) | 1,200 | ND (< 25) | |
| O13A | | 7/22/1991 | 6.5 | 340 | 800 | 44 | ND (< 25) | ND (< 2.5) | ND (< 2.5) | 620 | ND (< 2.5) | 610 | ND (< 2.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O13A | | 10/4/1991 | 5 | 200 | 1,000 | 94 | ND (< 50) | ND (< 5) | ND (< 5) | 1,300 | ND (< 5) | 590 | ND (< 5) | Freon 11 = 32 |
| O13A | | 12/9/1991 | 11 | 250 | 700 | 120 | 20 | ND (< 5) | ND (< 10) | - | 20 | 660 | ND (< 10) | Ethylbenzene = 7.7 ; Toluene = 9.9 ; Xylenes = 81 |
| | | | | | | | | | | | | | | |
| O15A | | 12/20/1990 | 0.2 | 130 | 130 | 5.9 | 5.7 | 1.5 | 0.5 | - | - | 12 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 2.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 3.9 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O15A | | 2/8/1991 | 2 | 230 | 170 | 4 | 3 | 3 | 10 | - | - | 98 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; BDCHLMA = 4 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 4.8 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Freon 11 = 5 ; MC = 50 ; trans-1,3-DCP = 3 |
| O15A | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O15A | Dup | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O15A | | 5/1/1991 | ND (< 1) | 350 | 150 | ND (< 1) | ND (< 5) | ND (< 1) | ND (< 1) | 44 | ND (< 1) | 110 | ND (< 1) | CHLFM = 7 |
| O15A | Dup | 5/1/1991 | ND (< 1) | 320 | 150 | 6 | ND (< 5) | ND (< 1) | ND (< 1) | 42 | ND (< 1) | 120 | ND (< 1) | CHLFM = 7 |
| O15A | | 7/22/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O15A | | 10/4/1991 | ND (< 1) | 410 | 170 | 10 | ND (< 5) | ND (< 1) | ND (< 1) | 55 | ND (< 1) | 100 | ND (< 1) | CHLFM = 3.4 ; Freon 11 = 1.8 |
| O15A | | 12/9/1991 | ND (< 5) | 200 | 81 | 9.8 | - | ND (< 5) | ND (< 10) | - | ND (< 5) | 51 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| O17B | | 12/5/1990 | 0.2 | 0.6 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.6 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O17B | | 2/5/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O17B | | 8/27/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O17B | | 10/4/1991 | - | - | - | - | - | - | ND (< 0.5) | - | - | - | - | |
| O17B | | 12/16/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | | 3/9/1992 | - | - | - | - | - | - | ND (< 0.5) | - | - | - | - | |
| O17B | | 6/4/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O17B | | 9/14/1992 | - | - | - | - | - | - | ND (< 0.5) | - | - | - | - | |
| O17B | | 12/2/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | | 6/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O17B | | 12/3/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | | 6/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.97 ; MC = 1.1 |
| O17B | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5.3 |
| O17B | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | Dup | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| O17B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O17B | | 12/8/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| O17B | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95.3 |
| O17B | | 12/15/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| O17B | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O17B | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O17B | Dup | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O17B | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O17B | Dup | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O17B | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O17B | | 6/13/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O17B | | 6/9/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O17B | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O17B | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O27A1 | | 7/22/1991 | - | - | - | - | - | - | ND (< 0.5) | - | - | - | - | |
| O27A1 | | 12/4/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O27A1 | | 6/4/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O27A1 | | 12/3/1992 | ND (< 5) | ND (< 5) | 32 | 12 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O27A1 | | 6/3/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O27A1 | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O27A1 | | 6/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O27A1 | | 12/12/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O27A1 | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O27A1 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O27A1 | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| O27A1 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O27A1 | | 12/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| O27A1 | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| O27A1 | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O28A1 | | 12/6/1990 | 2 | 28 | 15 | 4.7 | 6.3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 20 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 11 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| O28A1 | | 4/19/1991 | ND (< 0.5) | 47 | 12 | 6 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 6 |
| O28A1 | | 7/22/1991 | ND (< 0.5) | 72 | 16 | 8.8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.5 |
| O28A1 | | 10/4/1991 | ND (< 0.5) | 66 | 15 | 8.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.7 |
| O28A1 | Dup | 10/4/1991 | ND (< 0.5) | 62 | 14 | 8.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.6 |
| O28A1 | | 12/9/1991 | ND (< 5) | 52 | ND (< 5) | 8.2 | - | ND (< 5) | ND (< 10) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | Dup | 12/9/1991 | ND (< 5) | 52 | ND (< 5) | 8.5 | - | ND (< 5) | ND (< 10) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | | 3/10/1992 | ND (< 0.5) | 27 | 5.8 | 3.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| O28A1 | | 6/4/1992 | ND (< 0.5) | 39 | 6.9 | 5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| O28A1 | | 9/15/1992 | ND (< 0.5) | 49 | 9.2 | 7.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| O28A1 | | 12/2/1992 | ND (< 5) | 70 | ND (< 5) | 9.2 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | Dup | 12/2/1992 | ND (< 5) | 52 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | | 12/29/1992 | ND (< 5) | 70 | ND (< 5) | 9.2 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | Dup | 12/29/1992 | ND (< 5) | 52 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | | 3/2/1993 | ND (< 0.5) | 9 | 1.6 | 0.9 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O28A1 | | 6/8/1993 | ND (< 0.5) | 48 | 12 | 7 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O28A1 | | 9/7/1993 | ND (< 0.5) | 28 | 6.5 | 4.3 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.7 |
| O28A1 | | 12/7/1993 | ND (< 5) | 47 | 8.5 | 6.6 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | | 3/9/1994 | ND (< 0.5) | 58 | 11 | 8.5 | - | ND (< 0.5) | ND (< 0.5) | 0.86 | ND (< 0.5) | 0.67 | ND (< 0.5) | CHLFM = 0.95 |
| O28A1 | | 6/7/1994 | ND (< 0.5) | 43 | 7.4 | 5 | - | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O28A1 | | 9/2/1994 | ND (< 0.5) | 60 | 14 | 9.3 | - | ND (< 0.5) | ND (< 0.5) | 0.63 | ND (< 0.5) | 0.85 | ND (< 0.5) | CHLFM = 0.73 |
| O28A1 | | 12/8/1994 | ND (< 5) | 74 | 12 | 10 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | | 3/3/1995 | ND (< 0.5) | 38 | 7.2 | 5.7 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O28A1 | | 6/7/1995 | ND (< 0.5) | 22 | 4.4 | 4.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O28A1 | | 9/6/1995 | ND (< 0.5) | 24 | 5 | 4.3 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.62 |
| O28A1 | | 12/7/1995 | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | Dup | 12/7/1995 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O28A1 | | 3/6/1996 | ND (< 0.5) | 29 | 5.7 | 3.2 | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 |
| O28A1 | | 6/10/1996 | ND (< 0.5) | 20 | 3.7 | 2.7 | 2.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 1.9 |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O28A1 | | 9/11/1996 | ND (< 0.5) | 16 | 3 | 2.4 | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 1.5 |
| O28A1 | | 12/11/1996 | ND (< 5) | 16 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O28A1 | | 3/5/1997 | ND (< 0.5) | 13 | 2.3 | 1.7 | 0.91 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 ; CHLFM = 1.6 |
| O28A1 | | 6/4/1997 | ND (< 0.5) | 13 | 1.8 | 1.4 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 ; CHLFM = 0.76 |
| O28A1 | | 9/10/1997 | ND (< 0.5) | 12 | 1.7 | 1.3 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 0.94 ; MC = 1.7 |
| O28A1 | | 12/5/1997 | ND (< 0.5) | 16 | 1.5 | 1.3 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 ; CHLFM = 1.5 |
| O28A1 | | 6/4/1998 | ND (< 0.5) | 12 | 0.69 | 0.86 | 0.79 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 1.5 ; MC = 0.61 |
| O28A1 | | 12/10/1998 | ND (< 0.5) | 9.36 | 0.572 | 0.909 | 0.726 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94.3 |
| O28A1 | | 6/10/1999 | ND (< 1.00) | 17.8 | 1.32 | 1.42 | 1.17 | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | CHLFM = 2.99 |
| O28A1 | | 12/15/1999 | ND (< 0.5) | 13.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | CHLFM = 0.648 |
| O28A1 | | 6/8/2000 | ND (< 0.50) | 19 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 12/6/2000 | ND (< 0.50) | 11 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O28A1 | | 6/20/2001 | ND (< 0.50) | 16 | 0.50 | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O28A1 | | 6/24/2003 | ND (< 0.50) | 18 | 0.53 | 1.1 | 0.98 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 6/22/2005 | ND (< 0.50) | 24 | 0.63 | 1.1 | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | Dup | 6/22/2005 | ND (< 0.50) | 25 | 0.66 | 1.2 | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 9/10/2007 | ND (< 0.50) | 19 | 0.67 | 0.92 | 0.97 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.65 | ND (< 0.50) | |
| O28A1 | | 12/27/2007 | ND (< 0.50) | 19 | ND (< 0.50) | 0.87 | 0.75 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 2/1/2008 | ND (< 0.50) | 17 | ND (< 0.50) | 0.69 | 0.63 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 2/29/2008 | ND (< 0.50) | 20 | ND (< 0.50) | 0.69 | 0.74 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 6/11/2008 | ND (< 0.50) | 12 | ND (< 0.50) | 0.59 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 12/11/2008 | ND (< 0.50) | 16 | ND (< 0.50) | 0.68 | 0.59 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | Dup | 12/11/2008 | ND (< 0.50) | 16 | ND (< 0.50) | 0.70 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 6/10/2009 | ND (< 0.50) | 12 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O28A1 | | 6/14/2011 | ND (< 0.50) | 27 | 1.2 | 2.2 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | 1.4 | ND (< 0.50) | |
| O28A1 | | 6/20/2013 | ND (< 0.50) | 67 | 1.9 | 3.0 | 3.1 | ND (< 0.50) | ND (< 0.50) | 4.9 | ND (< 0.50) | 3.6 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O48A | | 12/7/1990 | 26 | 730 | 900 | 8.3 | 65 | 4.9 | 18 | - | - | 360 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 180 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 53 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 6.6 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 12 ; o-Xylene = 6.2 ; Toluene = 4.4 ; trans-1,3-DCP = 3 ; Xylenes = 29 |
| O48A | Dup | 12/7/1990 | 35 | 760 | 980 | 9.1 | 69 | 3 | 19 | - | - | 390 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 230 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2.5 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 6.8 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 12 ; o-Xylene = 6.4 ; Toluene = 4.6 ; trans-1,3-DCP = 3 ; Xylenes = 31 |
| O48A | | 2/15/1991 | 51 | 1,200 | 1,200 | 5 | - | 13 | - | - | - | - | 10 | 1,1,2,2-TCA = 5 ; 1,1,2-TCA = 5 ; 1,2-DCPA = 5 ; 2-CVE = 10 ; Acetone = 22 ; BDCHLMA = 5 ; Benzene = 5 ; BRFM = 5 ; BRMA = 10 ; CHLBZ = 5 ; CHLEA = 10 ; CHLFM = 5 ; CHLMA = 10 ; cis-1,3-DCP = 5 ; CT = 5 ; DBCM = 5 ; Ethylbenzene = 5 ; MC = 25 ; Toluene = 5 ; trans-1,3-DCP = 5 ; Xylenes = 25 |
| O48A | | 4/8/1991 | - | - | - | - | - | - | 210 | - | - | - | - | 1,2,4-TCB = 530 |
| O48A | | 5/1/1991 | 210 | 9,300 | 9,300 | 57 | ND (< 5) | 6 | 400 | 500 | ND (< 5) | 3,000 | ND (< 5) | 1,1,2-TCA = 5 ; 1,4-DCB = 7 ; Acetone = 150 ; CHLBZ = 9 ; Ethylbenzene = 180 ; MC = 370 ; Toluene = 160 ; Xylenes = 830 |
| O48A | | 7/22/1991 | 270 | 13,000 | 12,000 | ND (< 50) | ND (< 250) | ND (< 50) | 320 | 350 | ND (< 50) | 2,700 | ND (< 50) | 1,2,4-TCB = 670 ; Ethylbenzene = 220 ; MC = 300 ; Toluene = 180 ; Xylenes = 990 |
| O48A | | 10/4/1991 | 140 | 7,000 | 7,700 | ND (< 25) | ND (< 120) | ND (< 25) | 220 | 260 | ND (< 25) | 1,300 | ND (< 25) | 1,2,4-TCB = 450 ; MC = 100 |
| O48A | | 12/9/1991 | 38 | 970 | 1,100 | 47 | ND (< 50) | ND (< 5) | 170 | - | ND (< 5) | 260 | ND (< 10) | 1,2,4-TCB = 370 ; Acetone = 1,500 ; Ethylbenzene = 17 ; MC = 14 ; Toluene = 14 ; Xylenes = 91 |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O52A2 | | 12/6/1990 | 0.2 | 0.5 | 0.9 | 16 | 1.1 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 20 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O52A2 | Dup | 12/6/1990 | 0.2 | 0.5 | 0.9 | 16 | 1.1 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 20 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O52A2 | | 4/19/1991 | ND (< 0.5) | 2 | ND (< 0.5) | 16 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 7/22/1991 | ND (< 0.5) | 13 | 2.9 | 18 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 10/4/1991 | ND (< 0.5) | 0.5 | 2.6 | 24 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 12/9/1991 | ND (< 5) | 6 | ND (< 5) | 11 | ND (< 5) | ND (< 5) | ND (< 10) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O52A2 | | 3/10/1992 | ND (< 0.5) | 16 | 3.3 | 16 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 6/4/1992 | ND (< 0.5) | 24 | 2.9 | 12 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 9/14/1992 | ND (< 0.5) | 22 | 2.3 | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 12/2/1992 | ND (< 5) | ND (< 5) | ND (< 5) | 12 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O52A2 | | 3/3/1993 | ND (< 0.5) | 0.7 | 0.7 | 9.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 6/3/1993 | ND (< 0.5) | 22 | 2.1 | 8.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 9/8/1993 | ND (< 0.5) | 23 | 3.2 | 10 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | 6.3 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O52A2 | | 3/10/1994 | ND (< 0.5) | 12 | 1.3 | 5.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 6/7/1994 | ND (< 0.5) | 8.2 | 0.97 | 12 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 9/2/1994 | ND (< 0.5) | 20 | 3.1 | 8.4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 12/8/1994 | ND (< 5) | 21 | ND (< 5) | 7.2 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O52A2 | | 3/3/1995 | ND (< 0.5) | 13 | 1.1 | 5.6 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 6/7/1995 | ND (< 0.5) | 3.8 | ND (< 0.5) | 2.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 9/5/1995 | ND (< 0.5) | 5.7 | 0.62 | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | Dup | 9/5/1995 | ND (< 0.5) | 4.6 | 0.86 | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O52A2 | | 3/6/1996 | ND (< 0.5) | 2.4 | ND (< 0.5) | 2.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O52A2 | | 6/6/1996 | ND (< 0.5) | 1.2 | 0.83 | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| O52A2 | | 9/11/1996 | ND (< 0.5) | 0.9 | 0.66 | 2.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| O52A2 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O52A2 | | 3/7/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 118 |
| O52A2 | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| O52A2 | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| O52A2 | | 12/9/1997 | ND (< 0.5) | 0.96 | 1.4 | 3.3 | - | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| O52A2 | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| O52A2 | | 12/9/1998 | ND (< 0.5) | 0.749 | ND (< 0.5) | 1.81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.826 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| O52A2 | | 6/10/1999 | ND (< 0.500) | 0.532 | 1.81 | 2.26 | 1.24 | ND (< 0.500) | ND (< 0.500) | 2.67 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| O52A2 | | 12/15/1999 | ND (< 1.3) | 13 | 50 | 28 | 38 | ND (< 1.3) | ND (< 1.3) | 63 | ND (< 1.3) | 1.6 | ND (< 1.3) | Freon 11 = 1.4 |
| O52A2 | | 6/8/2000 | ND (< 2.5) | 89 | 100 | 26 | 48 | ND (< 2.5) | ND (< 2.5) | 94 | ND (< 2.5) | 6.4 | ND (< 2.5) | |
| O52A2 | | 12/6/2000 | ND (< 10) | 210 | 130 | 22 | 61 | ND (< 10) | ND (< 10) | 110 | ND (< 10) | ND (< 40) | ND (< 10) | |
| O52A2 | Dup | 12/6/2000 | ND (< 0.50) | 9.0 | 1.3 | 0.93 | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O52A2 | Dup | 12/6/2000 | ND (< 25) | 230 | 130 | ND (< 25) | 55 | ND (< 25) | ND (< 25) | 110 | ND (< 25) | ND (< 100) | ND (< 25) | |
| O52A2 | | 6/22/2001 | ND (< 10) | 480 | 170 | 25 | 70 | ND (< 10) | ND (< 10) | 130 | ND (< 10) | ND (< 40) | ND (< 10) | |
| O52A2 | | 6/27/2002 | ND (< 5.0) | 520 | 130 | 22 | 57 | ND (< 5.0) | ND (< 5.0) | 110 | ND (< 5.0) | 39 | ND (< 5.0) | |
| O52A2 | | 6/27/2003 | ND (< 5.0) | 730 | 110 | 17 | 52 | ND (< 5.0) | ND (< 5.0) | 89 | ND (< 5.0) | 130 | ND (< 5.0) | |
| O52A2 | | 9/1/2004 | ND (< 5.0) | 660 | 100 | 14 | 53 | ND (< 5.0) | ND (< 5.0) | 110 | ND (< 5.0) | 42 | ND (< 5.0) | |
| O52A2 | | 9/1/2004 | ND (< 5.0) | 870 | 130 | 16 | 14 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 65 | ND (< 5.0) | |
| O52A2 | | 6/22/2005 | ND (< 10) | 520 | 92 | 19 | 76 | ND (< 10) | ND (< 10) | 84 | ND (< 10) | 49 | ND (< 10) | |
| O52A2 | | 6/27/2006 | ND (< 5.0) | 690 | 130 | 21 | 69 | ND (< 5.0) | ND (< 5.0) | 110 | ND (< 5.0) | 53 | ND (< 5.0) | |
| O52A2 | | 6/13/2007 | ND (< 5.0) | 930 | 130 | 19 | 72 | ND (< 5.0) | ND (< 5.0) | 110 | ND (< 5.0) | 100 | ND (< 5.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O52A2 | | 12/27/2007 | ND (< 10) | 690 | 94 | 17 | 57 | ND (< 10) | ND (< 10) | 84 | ND (< 10) | 92 | ND (< 10) | |
| O52A2 | | 2/1/2008 | ND (< 5.0) | 650 | 110 | 17 | 61 | ND (< 5.0) | ND (< 5.0) | 97 | ND (< 5.0) | 85 | ND (< 5.0) | |
| O52A2 | | 2/29/2008 | ND (< 5.0) | 840 | 150 | 21 | 84 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 100 | ND (< 5.0) | |
| O52A2 | | 6/11/2008 | ND (< 10) | 470 | 110 | 17 | 64 | ND (< 10) | ND (< 10) | 91 | ND (< 10) | 61 | ND (< 10) | |
| O52A2 | | 12/10/2008 | ND (< 5.0) | 470 | 140 | 19 | 76 | ND (< 5.0) | ND (< 5.0) | 110 | ND (< 5.0) | 91 | ND (< 5.0) | |
| O52A2 | | 6/9/2009 | ND (< 10) | 430 | 100 | 15 | 58 | ND (< 10) | ND (< 10) | 84 | ND (< 10) | 55 | ND (< 10) | |
| O52A2 | | 6/9/2010 | ND (< 10) | 500 | 100 | 13 | 55 | ND (< 10) | ND (< 10) | 66 | ND (< 10) | 71 | ND (< 10) | |
| O52A2 | Dup | 6/9/2010 | ND (< 10) | 500 | 100 | 14 | 54 | ND (< 10) | ND (< 10) | 66 | ND (< 10) | 72 | ND (< 10) | |
| O52A2 | | 6/14/2011 | ND (< 10) | 550 | 90 | 17 | 47 | ND (< 10) | ND (< 10) | 70 | ND (< 10) | 89 | ND (< 10) | |
| O52A2 | | 8/26/2011 | ND (< 0.50) | 440 | 76 | 14 | 39 | ND (< 0.50) | 0.69 | 62 | 1.0 | 74 | ND (< 0.50) | |
| O52A2 | | 9/29/2011 | ND (< 10) | 510 | 93 | 15 | 38 | ND (< 10) | ND (< 10) | 63 | ND (< 10) | 84 | ND (< 10) | |
| O52A2 | | 10/17/2011 | ND (< 10) | 460 | 76 | 13 | 36 | ND (< 10) | ND (< 10) | 54 | ND (< 10) | 67 | ND (< 10) | |
| O52A2 | | 6/13/2012 | ND (< 10) | 490 | 64 | 14 | 31 | ND (< 10) | ND (< 10) | 54 | ND (< 10) | 82 | ND (< 10) | |
| O52A2 | | 6/20/2013 | ND (< 5.0) | 410 | 45 | 12 | 24 | ND (< 5.0) | ND (< 5.0) | 44 | ND (< 5.0) | 66 | ND (< 5.0) | |
| O52A2 | | 6/11/2014 | ND (< 5.0) | 340 | 51 | 12 | 24 | ND (< 5.0) | ND (< 5.0) | 44 | ND (< 5.0) | 80 | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| O67A2 | | 12/6/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 20 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O67A2 | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O67A2 | | 5/1/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 8/1/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 10/4/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 12/9/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 14) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 6/4/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 6/18/1992 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O67A2 | | 9/17/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | Dup | 9/17/1992 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O67A2 | | 12/2/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | | 3/2/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 6/4/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 9/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | Dup | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | | 6/11/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 12/3/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | Dup | 12/3/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O67A2 | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| O67A2 | Dup | 6/6/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| O67A2 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O67A2 | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| O67A2 | | 12/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 |
| O67A2 | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| O67A2 | | 12/10/1998 | ND (< 0.5) | 11.4 | ND (< 0.5) | 2.16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| O67A2 | | 6/10/1999 | ND (< 2.50) | 55.3 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |
| O67A2 | | 12/15/1999 | 260 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| O67A2 | | 6/8/2000 | ND (< 50) | 3,400 | ND (< 50) | 57 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 200) | ND (< 50) | |
| O67A2 | | 12/5/2000 | ND (< 10) | 890 | ND (< 10) | 11 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 40) | ND (< 10) | |
| O67A2 | | 6/22/2001 | ND (< 250) | 19,000 | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | 270 | ND (< 250) | ND (< 250) | 1,000 | ND (< 250) | |
| O67A2 | | 6/27/2003 | 1,400 | 5,300 | ND (< 200) | ND (< 200) | ND (< 200) | ND (< 200) | 690 | ND (< 200) | ND (< 200) | 1,800 | ND (< 200) | |
| O67A2 | | 6/22/2005 | 1,100 | 15,000 | 410 | ND (< 100) | 170 | ND (< 100) | 1,800 | 110 | ND (< 100) | 6,600 | ND (< 100) | 1,2,4-TCB = 430 |
| O67A2 | | 6/27/2006 | 1,500 | 85,000 | 5,200 | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | 2,500 | ND (< 1,000) | ND (< 1,000) | 8,900 | ND (< 1,000) | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O67A2 | | 3/6/2007 | 2,100 | 62,000 | 4,100 | ND (< 500) | ND (< 500) | ND (< 500) | 3,100 | ND (< 500) | ND (< 500) | 13,000 | ND (< 500) | 1,2,4-TCB = 2,700 |
| O67A2 | | 6/12/2007 | 1,700 | 47,000 | 2,700 | ND (< 500) | ND (< 500) | ND (< 500) | 2,200 | ND (< 500) | ND (< 500) | 8,900 | ND (< 500) | 1,2,4-TCB = 1,200 |
| O67A2 | | 6/11/2008 | 1,200 | 18,000 | 860 | ND (< 200) | ND (< 200) | ND (< 200) | 2,000 | 680 | ND (< 200) | 6,000 | ND (< 200) | 1,2,4-TCB = 2,000 |
| O67A2 | | 12/10/2008 | 1,100 | 26,000 | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | 2,200 | 1,800 | ND (< 500) | 6,400 | ND (< 500) | 1,2,4-TCB = 2,600 ; Ethylbenzene = 1,700 ; Xylenes = 4,800 |
| O67A2 | | 6/10/2009 | 790 | 28,000 | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | 1,300 | 2,200 | ND (< 500) | 3,400 | ND (< 500) | 1,2,4-TCB = 1,300 |
| O67A2 | | 6/9/2010 | 620 | 23,000 | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | 1,000 | 2,100 | ND (< 500) | 3,200 | ND (< 500) | |
| O67A2 | | 6/14/2011 | 410 | 5,800 | 240 | ND (< 100) | ND (< 100) | ND (< 100) | 1,100 | 1,200 | ND (< 100) | 1,800 | ND (< 100) | 1,2,4-TCB = 1,300 |
| O67A2 | | 8/16/2011 | 12 | 540 | 130 | 8.3 | 14 | ND (< 0.50) | 36 | 6.7 | ND (< 0.50) | 68 | ND (< 0.50) | 1,2,4-TCB = 31 ; 1,4-DCB = 0.69 ; CHLFM = 1.1 ; Freon 11 = 8.6 |
| O67A2 | | 9/14/2011 | 500 | 4,100 | 290 | ND (< 100) | ND (< 100) | ND (< 100) | 930 | 2,000 | ND (< 100) | 1,900 | ND (< 100) | 1,2,3-TCB = 1,30 |
| O67A2 | | 9/29/2011 | 240 | 3,100 | 260 | ND (< 25) | ND (< 25) | ND (< 25) | 520 | 1,700 | ND (< 25) | 1,200 | ND (< 25) | 1,2,3-TCB = 250 |
| O67A2 | | 10/17/2011 | 220 | 2,400 | 220 | ND (< 25) | ND (< 25) | ND (< 25) | 600 | 1,500 | ND (< 25) | 1,200 | ND (< 25) | 1,2,3-TCB = 410 |
| O67A2 | | 6/13/2012 | 55 | 1,200 | 370 | ND (< 25) | 25 | ND (< 25) | 950 | 5,100 | 34 | 1,200 | ND (< 25) | 1,2,3-TCB = 2,00 |
| O67A2 | | 6/20/2013 | 380 | 7,300 | 410 | 25 | ND (< 25) | ND (< 25) | 1,500 | 2,000 | ND (< 25) | 1,700 | ND (< 25) | 1,4 DCB = 33, 1,2,4-TCB = 4500 |
| O67A2 | | 6/11/2014 | 78 | 400 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 300 | 2,400 | ND (< 50) | 440 | ND (< 50) | 1,2,4-TCB = 1,500 |
| O67A2 | Dup | 6/11/2014 | 74 | 410 | ND (< 5.0) | 10 | ND (< 5.0) | ND (< 5.0) | 310 | 2,300 | 16 | 430 | ND (< 5.0) | 1,2,4-TCB = 1,500, 1,3-DCB = 5.3 , 1,4-DCB = 7.3 |
| | | | | | | | | | | | | | | |
| O68A1 | | 12/6/1990 | 2 | 17 | 73 | 8.6 | 21 | 3 | 6.7 | - | - | 71 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| O68A1 | | 2/15/1991 | - | - | - | - | - | - | 10 | - | - | - | - | 1,2,4-TCB = 10 ; 1,3-DCB = 10 ; 1,4-DCB = 10 |
| O68A1 | | 3/1/1991 | - | - | - | - | - | - | 10 | - | - | - | - | 1,2,4-TCB = 10 ; 1,3-DCB = 10 ; 1,4-DCB = 10 |
| O68A1 | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O68A1 | | 5/1/1991 | 17 | 210 | 290 | 19 | ND (< 5) | ND (< 1) | - | 100 | ND (< 1) | 310 | ND (< 1) | Xylenes = 12 |
| O68A1 | | 7/22/1991 | 7.1 | 74 | 150 | 18 | - | 3.8 | ND (< 10) | 130 | 1 | 130 | ND (< 0.5) | |
| O68A1 | Dup | 7/22/1991 | 6.3 | 73 | 140 | 17 | - | 3.7 | ND (< 10) | 120 | 0.9 | 120 | ND (< 0.5) | |
| O68A1 | | 10/4/1991 | 5 | 54 | 60 | 11 | - | 2.8 | ND (< 10) | 57 | ND (< 0.5) | 42 | ND (< 0.5) | CHLFM = 0.6 |
| O68A1 | | 12/9/1991 | ND (< 5) | 33 | 41 | 9.5 | - | ND (< 5) | ND (< 10) | - | ND (< 5) | 38 | ND (< 10) | |
| O68A1 | | 3/12/1992 | 4.1 | 44 | 59 | 11 | - | 2.7 | ND (< 2.5) | 54 | ND (< 0.5) | 46 | ND (< 0.5) | CHLFM = 7.7 ; Freon 11 = 2.3 |
| O68A1 | | 6/4/1992 | 4.3 | 44 | 59 | 8.9 | - | 1.6 | - | 59 | ND (< 0.5) | 57 | ND (< 0.5) | CHLFM = 12 ; Freon 11 = 1.3 |
| O68A1 | | 6/18/1992 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O68A1 | | 9/18/1992 | 4.1 | 34 | 37 | 7.2 | ND (< 0.5) | 1.3 | ND (< 10) | 37 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.8 ; CHLFM = 2.9 ; Freon 11 = 1.4 |
| O68A1 | | 12/2/1992 | ND (< 5) | 34 | 33 | 7.4 | - | ND (< 5) | - | 38 | ND (< 5) | 36 | ND (< 10) | |
| O68A1 | | 3/3/1993 | 4.5 | 41 | 76 | 10 | - | 1 | - | 56 | 0.5 | 52 | ND (< 0.5) | CHLFM = 2.4 ; Freon 11 = 1.5 |
| O68A1 | | 6/4/1993 | 2 | 24 | 23 | 4.2 | - | 0.7 | - | 21 | ND (< 0.5) | 18 | ND (< 0.5) | |
| O68A1 | | 9/8/1993 | 2 | 22 | 20 | 4.7 | - | 1 | - | 18 | ND (< 0.5) | 19 | ND (< 0.5) | CHLEA = 3.5 ; CHLFM = 0.7 |
| O68A1 | | 12/6/1993 | ND (< 5) | 24 | 19 | ND (< 5) | - | ND (< 5) | - | 19 | ND (< 5) | 20 | ND (< 10) | |
| O68A1 | | 3/8/1994 | 1.8 | 28 | 19 | 3.4 | - | 0.85 | - | 20 | ND (< 0.5) | 16 | ND (< 0.5) | CHLEA = 2.4 ; CHLFM = 0.64 |
| O68A1 | | 6/11/1994 | 1.7 | 30 | 21 | 3.3 | - | 0.52 | - | 22 | ND (< 0.5) | 19 | ND (< 0.5) | CHLEA = 1.9 ; CHLFM = 0.52 |
| O68A1 | Dup | 6/11/1994 | 1.9 | 35 | 22 | 3.4 | - | ND (< 0.5) | - | 23 | ND (< 0.5) | 20 | ND (< 0.5) | CHLEA = 1.9 ; CHLFM = 0.58 |
| O68A1 | | 9/7/1994 | 1.7 | 34 | 17 | 2.3 | - | ND (< 0.5) | - | 17 | ND (< 0.5) | 19 | ND (< 0.5) | CHLEA = 4.2 |
| O68A1 | Dup | 9/7/1994 | 1.5 | 32 | 15 | 2.2 | - | ND (< 0.5) | - | 16 | ND (< 0.5) | 18 | ND (< 0.5) | CHLEA = 3.6 |
| O68A1 | | 12/3/1994 | ND (< 5) | 34 | 10 | ND (< 5) | - | ND (< 5) | - | 15 | ND (< 5) | 12 | ND (< 10) | |
| O68A1 | | 3/6/1995 | 1 | 25 | 12 | 1.3 | - | ND (< 0.5) | - | 15 | ND (< 0.5) | 13 | ND (< 0.5) | CHLEA = 0.7 ; Freon 11 = 0.54 |
| O68A1 | Dup | 3/6/1995 | 1.1 | 26 | 13 | 1.3 | - | ND (< 0.5) | - | 15 | ND (< 0.5) | 14 | ND (< 0.5) | CHLEA = 0.7 ; Freon 11 = 0.55 |
| O68A1 | | 6/6/1995 | 1.7 | 30 | 16 | 1.2 | - | ND (< 0.5) | - | 15 | ND (< 0.5) | 26 | ND (< 0.5) | CHLEA = 0.67 ; CHLFM = 0.74 ; Freon 11 = 0.84 |
| O68A1 | | 9/7/1995 | 1.5 | 27 | 14 | 1.5 | - | 1.5 | 2.5 | 14 | ND (< 0.5) | 18 | ND (< 0.5) | CHLFM = 0.74 |
| O68A1 | Dup | 9/7/1995 | 1.4 | 26 | 14 | 1.4 | - | 1.3 | 2.4 | 13 | ND (< 0.5) | 17 | ND (< 0.5) | CHLFM = 0.7 |
| O68A1 | | 12/6/1995 | ND (< 5) | 26 | 20 | ND (< 5) | - | ND (< 5) | - | 25 | ND (< 5) | 31 | ND (< 10) | |
| O68A1 | | 3/7/1996 | 1.7 | 14 | 10 | 1 | ND (< 1) | 0.61 | ND (< 1) | 10 | ND (< 1) | 15 | ND (< 1.8) | |
| O68A1 | | 6/7/1996 | 0.85 | 8.4 | 6 | ND (< 0.5) | 2.2 | ND (< 0.5) | ND (< 0.5) | 4.7 | ND (< 0.5) | 11 | ND (< 0.5) | CBMA = 103 ; Freon 11 = 0.66 |
| O68A1 | | 9/12/1996 | 1.2 | 11 | 5.8 | ND (< 0.5) | 2.2 | ND (< 0.5) | 1.1 | 4.9 | ND (< 0.5) | 8.9 | ND (< 0.5) | CBMA = 98 ; Freon 11 = 0.81 ; MC = 0.65 |
| O68A1 | Dup | 9/12/1996 | 1.2 | 10 | 5.5 | ND (< 0.5) | 2 | ND (< 0.5) | 1.2 | 4.8 | ND (< 0.5) | 7.5 | ND (< 0.5) | 1,1,2,2-TCA = 1 ; CBMA = 104 ; Freon 11 = 0.8 ; MC = 0.55 |
| O68A1 | | 12/12/1996 | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | 9 | ND (< 10) | MC = 6.3 |
| O68A1 | | 3/6/1997 | 0.96 | 6.1 | 2.2 | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | 4.6 | ND (< 0.5) | CBMA = 110 |
| O68A1 | Dup | 3/6/1997 | 0.64 | 5.6 | 2.3 | ND (< 0.5) | 0.74 | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | 4.9 | ND (< 0.5) | CBMA = 113 ; MC = 0.61 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O68A1 | | 6/5/1997 | 0.62 | 5.5 | 2.5 | ND (< 0.5) | 0.53 | ND (< 0.5) | 0.94 | 2.9 | ND (< 0.5) | 1.2 | ND (< 0.5) | CBMA = 94 |
| O68A1 | | 9/10/1997 | ND (< 0.5) | 2.2 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | 4.9 | ND (< 0.5) | CBMA = 101 ; MC = 1.5 |
| O68A1 | | 12/4/1997 | 0.5 | 3.2 | 1.7 | ND (< 0.5) | 0.54 | ND (< 0.5) | 0.5 | 1.4 | ND (< 0.5) | 6.2 | ND (< 0.5) | CBMA = 96 |
| O68A1 | | 12/11/1998 | 0.614 | 2.54 | 2.2 | ND (< 0.5) | 0.578 | ND (< 0.5) | ND (< 0.5) | 1.08 | ND (< 0.5) | 4.47 | ND (< 0.5) | CBMA = 91.7 |
| O68A1 | | 12/15/1999 | ND (< 0.5) | 5.5 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O68A1 | | 12/5/2000 | 1.6 | 11 | 8.6 | 1.5 | 2.9 | ND (< 0.50) | ND (< 0.50) | 5.3 | ND (< 0.50) | 9.7 | ND (< 0.50) | |
| O68A1 | | 6/22/2001 | 7.2 | 44 | 85 | 26 | 16 | ND (< 0.50) | 3.7 | 39 | ND (< 0.50) | 45 | ND (< 0.50) | |
| O68A1 | | 6/27/2003 | 0.63 | 3.6 | 15 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | 4.7 | ND (< 0.50) | |
| O68A1 | | 6/22/2005 | ND (< 0.50) | 24 | 60 | 1.2 | 8.8 | ND (< 0.50) | ND (< 0.50) | 4.1 | ND (< 0.50) | 16 | ND (< 0.50) | |
| O68A1 | Dup | 6/22/2005 | 0.63 | 26 | 52 | 1.1 | 3.6 | ND (< 0.50) | 1.1 | 3.7 | ND (< 0.50) | 15 | ND (< 0.50) | |
| O68A1 | | 6/27/2006 | ND (< 100) | 2,100 | 2,300 | 110 | 140 | ND (< 100) | ND (< 100) | 240 | ND (< 100) | 1,000 | ND (< 100) | |
| O68A1 | | 3/6/2007 | 35 | 1,500 | 610 | ND (< 20) | 29 | ND (< 20) | ND (< 20) | 85 | ND (< 20) | 790 | ND (< 20) | |
| O68A1 | | 6/12/2007 | 32 | 1,600 | 760 | 25 | 46 | ND (< 20) | ND (< 20) | 220 | ND (< 20) | 960 | ND (< 20) | |
| O68A1 | | 6/11/2008 | 23 | 1,800 | 1,600 | ND (< 20) | 73 | ND (< 20) | ND (< 20) | 160 | ND (< 20) | 1,300 | ND (< 20) | |
| O68A1 | | 12/10/2008 | 36 | 2,400 | 1,200 | 26 | 67 | ND (< 25) | ND (< 25) | 230 | ND (< 25) | 1,700 | ND (< 25) | |
| O68A1 | | 6/10/2009 | 52 | 1,800 | 1,700 | 36 | 130 | ND (< 25) | ND (< 25) | 220 | ND (< 25) | 1,300 | ND (< 25) | |
| O68A1 | | 6/9/2010 | 24 | 470 | 760 | 28 | 73 | ND (< 5.0) | ND (< 5.0) | 180 | ND (< 5.0) | 470 | ND (< 5.0) | |
| O68A1 | | 6/14/2011 | 11 | 230 | 210 | 8.6 | 12 | ND (< 5.0) | ND (< 5.0) | 60 | ND (< 5.0) | 210 | ND (< 5.0) | |
| O68A1 | | 6/13/2012 | 25 | 420 | 380 | 15 | 17 | ND (< 5.0) | 30 | 200 | ND (< 5.0) | 320 | ND (< 5.0) | |
| O68A1 | | 6/20/2013 | 200 | 2,600 | 1,800 | 210 | 120 | ND (< 5.0) | 23 | 1,300 | ND (< 5.0) | 2,000 | ND (< 5.0) | 1,2,4-TCB = 23 |
| O68A1 | | 6/11/2014 | 92 | 470 | 1,100 | 83 | 120 | ND (< 25) | 140 | 760 | ND (< 25) | 2,600 | ND (< 25) | 1,2,4-TCB = 52 |
| | | | | | | | | | | | | | | |
| O69A2D | | 12/6/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 20 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O69A2D | | 4/12/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | Dup | 7/29/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 10/3/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 12/16/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | Dup | 12/16/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 6/5/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 9/14/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 12/2/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | | 3/2/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | Dup | 3/2/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 6/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 9/7/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.2 |
| O69A2D | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 12/13/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O69A2D | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 ; MC = 0.73 |
| O69A2D | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| O69A2D | Dup | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| O69A2D | | 12/13/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O69A2D | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O69A2D | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O69A2D | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/23/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/13/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50 ,*) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/9/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O69A2D | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | Dup | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/13/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O69A2D | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O70A1 | | 12/6/1990 | 0.2 | 2.4 | 13 | 15 | 9.9 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 20 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O70A1 | | 4/12/1991 | ND (< 0.5) | 7 | 16 | 15 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | Dup | 4/12/1991 | ND (< 0.5) | 11 | 19 | 17 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 7/31/1991 | ND (< 0.5) | 5 | 14 | 14 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 10/3/1991 | ND (< 0.5) | 7.1 | 17 | 16 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| O70A1 | | 12/13/1991 | ND (< 5) | ND (< 5) | ND (< 5) | 12 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O70A1 | | 3/11/1992 | ND (< 0.5) | 1.7 | 4.3 | 8.8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 6/5/1992 | ND (< 0.5) | 3.5 | 11 | 12 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLMA = 3.6 |
| O70A1 | | 9/14/1992 | ND (< 0.5) | 2.1 | 7.2 | 11 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 12/2/1992 | ND (< 5) | ND (< 5) | ND (< 5) | 12 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O70A1 | | 3/2/1993 | ND (< 0.5) | 1.7 | 5.9 | 10 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 6/8/1993 | ND (< 0.5) | 0.6 | 2.6 | 5.6 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 9/7/1993 | ND (< 0.5) | 3.4 | 9.3 | 10 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.5 |
| O70A1 | | 12/6/1993 | ND (< 5) | 5.9 | ND (< 5) | 8.7 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O70A1 | | 3/2/1994 | ND (< 0.5) | 2.2 | 2.8 | 7.8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 6/9/1994 | ND (< 0.5) | 1.2 | 2.4 | 6.6 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 9/2/1994 | ND (< 0.5) | 1.2 | 2.3 | 6.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 12/13/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O70A1 | | 3/3/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 9/5/1995 | ND (< 0.5) | 0.92 | 1.1 | 5.4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | 5.4 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O70A1 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 6/4/1996 | ND (< 0.5) | 0.51 | 1.2 | 2.5 | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 97 |
| O70A1 | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | 0.52 | 2.7 | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| O70A1 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O70A1 | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| O70A1 | | 6/3/1997 | ND (< 0.5) | 0.64 | 1.7 | 4.7 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| O70A1 | | 9/10/1997 | ND (< 0.5) | ND (< 0.5) | 0.74 | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 ; MC = 1.6 |
| O70A1 | Dup | 9/10/1997 | ND (< 0.5) | ND (< 0.5) | 0.7 | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; MC = 1.5 |
| O70A1 | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 |
| O70A1 | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| O70A1 | | 12/13/1999 | ND (< 0.5) | 1.11 | 2.16 | 6.39 | 1.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O70A1 | | 12/6/2000 | ND (< 0.50) | 1.2 | 2.1 | 5.9 | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O70A1 | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O70A1 | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O70A1 | | 6/23/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | |
| O70A1 | | 6/13/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O70A1 | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50 ,*) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O70A1 | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O70A1 | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O81A2 | | 12/7/1990 | 16 | 360 | 220 | 210 | 58 | 3 | 0.5 | - | - | 160 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 24 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.9 ; Freon 11 = 16 ; MC = 50 ; m-Xylene = 2 ; o-Xylene = 4.1 ; Toluene = 0.8 ; trans-1,3-DCP = 3 ; Xylenes = 8.1 |
| O81A2 | | 2/8/1991 | 2.5 | 120 | 71 | 76 | 48 | 3 | 10 | - | - | 47 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; BDCHLMA = 4 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Freon 11 = 29 ; MC = 50 ; trans-1,3-DCP = 3 |
| O81A2 | | 5/1/1991 | 10 | 190 | 92 | 100 | - | ND (< 3) | 7 | 42 | ND (< 3) | 64 | ND (< 3) | 1,2,4-TCB = 12 ; 1,4-DCB = 1 ; Freon 11 = 27 ; Xylenes = 2 |
| O81A2 | | 8/1/1991 | 11 | 220 | 74 | 97 | - | ND (< 5) | ND (< 5) | 52 | ND (< 5) | 62 | ND (< 5) | 1,2,4-TCB = 13 ; Freon 11 = 18 |
| O81A2 | | 10/4/1991 | 10 | 170 | 62 | 78 | ND (< 2.5) | ND (< 1) | ND (< 10) | 38 | ND (< 1) | 39 | ND (< 1) | 1,2,4-TCB = 14 ; CHLEA = 3.2 ; CHLFM = 4.4 ; Freon 11 = 28 ; MC = 1 ; Xylenes = 1.8 |
| O81A2 | | 12/9/1991 | 8.9 | 130 | 44 | 69 | - | ND (< 5) | ND (< 10) | - | ND (< 5) | 34 | ND (< 10) | 1,2,4-TCB = 18 |
| | | | | | | | | | | | | | | |
| O99B | | 11/29/1990 | 0.2 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.6 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O99B | | 12/7/1990 | 1.3 | 4.9 | 3.1 | 1.6 | 0.4 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O99B | | 2/8/1991 | ND (< 0.2) | 1 | 0.3 | ND (< 0.4) | ND (< 0.3) | ND (< 0.3) | ND (< 1) | - | - | ND (< 1) | ND (< 0.3) | CHLFM = 0.6 |
| O99B | | 2/8/1991 | 0.2 | 0.5 | 0.6 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.5 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| O99B | | 4/8/1991 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| O99B | | 5/1/1991 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O99B | | 8/1/1991 | ND (< 0.5) | 1 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O99B | | 10/4/1991 | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O99B | | 12/9/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| O100B | | 11/28/1990 | 0.2 | 0.6 | 0.4 | 0.4 | 0.4 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.5 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| O100B | | 12/19/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.3 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.3 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.9 |
| O100B | | 2/5/1991 | ND (< 0.3) | 0.8 | ND (< 0.3) | ND (< 0.4) | ND (< 0.3) | ND (< 0.3) | ND (< 1) | - | - | ND (< 1) | ND (< 0.3) | CHLFM = 1.3 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O100B | | 2/5/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| O100B | | 4/12/1991 | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 8/1/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 10/11/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 12/4/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 9/22/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 12/3/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | | 6/3/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | | 6/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O100B | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | Dup | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O100B | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 82 |
| O100B | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| O100B | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| O100B | | 12/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O100B | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O100B | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O100B | | 6/21/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O100B | | 6/21/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O100B | | 6/9/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O100B | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O100B | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O104A1 | | 9/4/1992 | ND (< 0.5) | ND (< 0.5) | 3.2 | 5.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| O104A1 | | 12/3/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | Dup | 12/3/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | | 6/3/1993 | ND (< 0.5) | ND (< 0.5) | 3.9 | 7.7 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 ; Freon 11 = 1.3 |
| O104A1 | | 1/25/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | Dup | 1/25/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | | 6/3/1994 | ND (< 0.5) | ND (< 0.5) | 4.2 | 3.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O104A1 | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | Dup | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | Dup | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O104A1 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | 4 | 2 | 3.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 ; Freon 11 = 0.69 |
| O104A1 | | 12/15/1999 | ND (< 0.5) | ND (< 0.5) | 5.41 | 2.13 | 5.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.539 ; Freon 11 = 0.541 |
| O104A1 | Dup | 12/15/1999 | ND (< 0.5) | ND (< 0.5) | 5.02 | 2.2 | 5.96 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.547 ; Freon 11 = 0.597 |
| O104A1 | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | 7.1 | 1.3 | 5.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O104A1 | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | 5.0 | 1.5 | 4.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O104A1 | | 6/22/2005 | ND (< 0.50) | ND (< 0.50) | 5.6 | 2.3 | 9.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O104A1 | Dup | 6/22/2005 | ND (< 0.50) | ND (< 0.50) | 5.4 | 2.2 | 8.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O104A1 | | 6/21/2007 | ND (< 0.50) | 3.6 | 1.7 | 4.6 | 19 | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | ND (< 0.50) | 0.93 | |
| O104A1 | | 6/10/2009 | ND (< 0.50) | 1.3 | 2.5 | 1.4 | 5.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O104A1 | | 6/14/2011 | ND (< 0.50) | 1.3 | 4.1 | 1.6 | 6.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 1.1 |
| O104A1 | | 6/17/2013 | ND (< 0.50) | 0.56 | 2.7 | 0.92 | 3.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O105A2 | | 9/8/1992 | ND (< 0.5) | ND (< 0.5) | 23 | 17 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.2 ; Freon 11 = 4.2 |
| O105A2 | | 12/3/1992 | ND (< 5) | ND (< 5) | 26 | 17 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O105A2 | | 6/3/1993 | ND (< 0.5) | ND (< 0.5) | 33 | 20 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.2 ; Freon 11 = 10 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O105A2 | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O105A2 | | 6/3/1994 | ND (< 0.5) | ND (< 0.5) | 26 | 12 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.4 ; Freon 11 = 5.6 |
| O105A2 | | 12/7/1994 | ND (< 5) | ND (< 5) | 5.8 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O105A2 | | 6/7/1995 | ND (< 0.5) | ND (< 0.5) | 3.5 | 2.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Freon 11 = 0.6 |
| O105A2 | Dup | 6/7/1995 | ND (< 0.5) | ND (< 0.5) | 3.4 | 2.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Freon 11 = 0.55 |
| O105A2 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O105A2 | | 6/7/1996 | ND (< 0.5) | ND (< 0.5) | 2.4 | 1.5 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| O105A2 | Dup | 6/7/1996 | ND (< 0.5) | ND (< 0.5) | 2.6 | 1.6 | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| O105A2 | | 12/11/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O105A2 | | 12/3/1997 | ND (< 0.5) | ND (< 0.5) | 0.89 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| O105A2 | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92.3 |
| O105A2 | | 12/9/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| O105A2 | | 12/6/2000 | ND (< 0.50) | 0.93 | 0.71 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O105A2 | | 6/20/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O105A2 | | 6/24/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O105A2 | | 6/22/2005 | ND (< 0.50) | ND (< 0.50) | 9.3 | 3.2 | 12 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.1 ; Freon 11 = 6.2 |
| O105A2 | | 6/21/2007 | ND (< 0.50) | ND (< 0.50) | 7.9 | 2.2 | 7.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 1.0 |
| O105A2 | | 6/10/2009 | ND (< 0.50) | ND (< 0.50) | 5.2 | 1.6 | 4.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 1.7 |
| O105A2 | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | 4.8 | 1.3 | 4.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 1.3 |
| O105A2 | | 6/17/2013 | ND (< 0.50) | ND (< 0.50) | 2.7 | 0.89 | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O108A1 | | 9/8/1992 | ND (< 0.5) | 110 | 100 | 11 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 54 | ND (< 0.5) | 33 | ND (< 0.5) | BDCHLMA = 1.1 ; CHLFM = 5.1 |
| O108A1 | | 12/3/1992 | ND (< 5) | 340 | 290 | 20 | - | ND (< 5) | - | - | ND (< 5) | 48 | ND (< 10) | |
| O108A1 | | 6/7/1993 | ND (< 0.5) | 200 | 160 | 16 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 80 | ND (< 0.5) | 37 | ND (< 0.5) | CHLFM = 1.5 ; Freon 11 = 2.1 |
| O108A1 | Dup | 6/7/1993 | ND (< 0.5) | 220 | 170 | 17 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 90 | ND (< 0.5) | 41 | ND (< 0.5) | Freon 11 = 2.1 |
| O108A1 | | 12/6/1993 | ND (< 5) | 290 | 150 | 14 | - | ND (< 5) | - | 70 | ND (< 5) | 80 | ND (< 10) | |
| O108A1 | | 6/7/1994 | ND (< 2.5) | 290 | 160 | 15 | - | ND (< 2.5) | ND (< 2.5) | 76 | ND (< 2.5) | 70 | ND (< 2.5) | |
| O108A1 | | 12/8/1994 | ND (< 8.4) | 250 | 110 | 13 | - | ND (< 8.4) | - | 67 | ND (< 8.4) | 67 | ND (< 17) | |
| O108A1 | | 6/6/1995 | ND (< 1) | 150 | 120 | 12 | - | ND (< 1) | ND (< 1) | 77 | ND (< 1) | 46 | ND (< 1) | CHLFM = 2.1 ; Freon 11 = 1.5 |
| O108A1 | | 12/6/1995 | ND (< 0.5) | 91 | 74 | 5.9 | - | ND (< 0.5) | ND (< 0.5) | 48 | ND (< 0.5) | 31 | ND (< 0.5) | CHLFM = 1.4 |
| O108A1 | | 6/10/1996 | ND (< 2.5) | 130 | 100 | 14 | 40 | ND (< 2.5) | ND (< 2.5) | 58 | ND (< 2.5) | 48 | ND (< 2.5) | CBMA = 103 ; CHLFM = 6.3 ; Freon 11 = 2.7 ; MC = 2.9 |
| O108A1 | | 2/18/1997 | ND (< 5) | 76 | 64 | 9.4 | 23 | ND (< 5) | - | 42 | ND (< 5) | 45 | ND (< 10) | |
| O108A1 | | 12/8/1997 | ND (< 2.5) | 65 | 42 | 6 | 15 | ND (< 2.5) | ND (< 2.5) | 25 | ND (< 2.5) | 27 | ND (< 2.5) | CBMA = 97 ; MC = 4.2 |
| O108A1 | | 6/3/1998 | ND (< 1) | 30 | 20 | 4.4 | 8.1 | ND (< 1) | ND (< 1) | 19 | ND (< 1) | 8.4 | ND (< 1) | CBMA = 109 ; CHLFM = 2.9 |
| O108A1 | | 12/9/1998 | ND (< 0.5) | 23.3 | 15.2 | 2.7 | 6.56 | ND (< 0.5) | ND (< 0.5) | 12.1 | ND (< 0.5) | 11.7 | ND (< 0.5) | CBMA = 100 ; CHLFM = 1.54 |
| O108A1 | | 6/8/1999 | ND (< 1.00) | 41.8 | 22.7 | 3.10 | 9.04 | ND (< 1.00) | ND (< 1.00) | 15.7 | ND (< 1.00) | 16.7 | ND (< 1.00) | |
| O108A1 | Dup | 6/8/1999 | ND (< 1.00) | 38.7 | 20.4 | 2.85 | 7.62 | ND (< 1.00) | ND (< 1.00) | 13.8 | ND (< 1.00) | 14.4 | ND (< 1.00) | |
| O108A1 | | 12/9/1999 | ND (< 0.834) | 34.7 | 13.4 | 2.48 | 9.42 | ND (< 0.834) | ND (< 0.834) | 15.5 | ND (< 0.834) | 8.91 | ND (< 0.834) | |
| O108A1 | | 6/6/2000 | ND (< 0.50) | 42 | 25 | 2.1 | 8.5 | ND (< 0.50) | ND (< 0.50) | 15 | ND (< 0.50) | 15 | ND (< 0.50) | CHLFM = 0.63 |
| O108A1 | | 12/6/2000 | ND (< 0.50) | 31 | 15 | 1.5 | 5.8 | ND (< 0.50) | ND (< 0.50) | 10 | ND (< 0.50) | 13 | ND (< 0.50) | CHLFM = 1.3 |
| O108A1 | | 6/21/2001 | ND (< 0.50) | 39 | 17 | 1.8 | 6.8 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | 25 | ND (< 0.50) | CHLFM = 0.99 |
| O108A1 | | 6/27/2003 | ND (< 0.50) | 38 | 14 | 2.9 | 5.0 | ND (< 0.50) | ND (< 0.50) | 13 | 0.66 | 33 | ND (< 0.50) | CHLFM = 1.1 |
| O108A1 | | 6/21/2005 | ND (< 0.50) | 15 | 3.9 | 2.2 | 3.4 | ND (< 0.50) | ND (< 0.50) | 5.0 | ND (< 0.50) | 6.2 | ND (< 0.50) | |
| O108A1 | | 7/19/2007 | ND (< 0.50) | 7.5 | 1.4 | 0.73 | 1.3 | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | 4.7 | ND (< 0.50) | |
| O108A1 | | 6/9/2009 | ND (< 0.50) | 15 | 1.6 | 2.1 | 2.2 | ND (< 0.50) | ND (< 0.50) | 3.1 | ND (< 0.50) | 3.5 | ND (< 0.50) | |
| O108A1 | | 6/14/2011 | ND (< 0.50) | 12 | 1.4 | 1.7 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.6 | ND (< 0.50) | 3.2 | ND (< 0.50) | |
| O108A1 | Dup | 6/14/2011 | ND (< 0.50) | 11 | 1.3 | 1.6 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | 2.6 | ND (< 0.50) | |
| O108A1 | | 6/19/2013 | ND (< 0.50) | 4.6 | ND (< 0.50) | ND (< 0.50) | 0.72 | ND (< 0.50) | ND (< 0.50) | 0.91 | ND (< 0.50) | 1.8 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O109A2 | | 9/11/1992 | ND (< 0.5) | 62 | 280 | 39 | ND (< 0.5) | 2.7 | ND (< 0.5) | 130 | ND (< 0.5) | 3.8 | ND (< 0.5) | CHLFM = 6.3 ; Freon 11 = 1 |
| O109A2 | | 12/3/1992 | ND (< 5) | 42 | 210 | 32 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O109A2 | | 6/3/1993 | ND (< 1) | 110 | 440 | 30 | ND (< 5) | ND (< 1) | ND (< 1) | 160 | ND (< 1) | 17 | ND (< 1) | CHLFM = 1.6 ; Freon 11 = 3 |
| O109A2 | | 12/6/1993 | ND (< 5) | 75 | 220 | 18 | - | ND (< 5) | - | 99 | ND (< 5) | 20 | ND (< 10) | |
| O109A2 | Dup | 12/6/1993 | ND (< 5) | 73 | 210 | 18 | - | ND (< 5) | - | 98 | ND (< 5) | 19 | ND (< 10) | |
| O109A2 | | 6/7/1994 | ND (< 1) | 190 | 460 | 24 | - | 1.2 | ND (< 1) | 130 | ND (< 1) | 38 | ND (< 1) | CHLFM = 1.6 ; Freon 11 = 1.2 ; MC = 1.5 |
| O109A2 | | 12/12/1994 | ND (< 5) | 160 | 180 | 15 | - | ND (< 5) | - | 100 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O109A2 | | 6/6/1995 | ND (< 1) | 250 | 250 | 14 | - | ND (< 1) | ND (< 1) | 100 | ND (< 1) | 26 | ND (< 1) | |
| O109A2 | | 12/8/1995 | ND (< 5) | 300 | 240 | 15 | ND (< 50) | ND (< 5) | - | 100 | ND (< 5) | 42 | ND (< 10) | |
| O109A2 | Dup | 12/8/1995 | ND (< 5) | 310 | 240 | 16 | ND (< 50) | ND (< 5) | - | 100 | ND (< 5) | 46 | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O109A2 | | 6/11/1996 | ND (< 5) | 360 | 250 | 20 | 68 | ND (< 5) | ND (< 5) | 120 | ND (< 5) | 48 | ND (< 5) | CBMA = 109 ; MC = 5 |
| O109A2 | | 12/13/1996 | ND (< 5) | 53 | 48 | 11 | ND (< 5) | ND (< 5) | - | 140 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O109A2 | | 12/13/1996 | ND (< 5) | 60 | 46 | 11 | ND (< 5) | ND (< 5) | - | 130 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O109A2 | | 12/9/1997 | ND (< 2.5) | 73 | 73 | 11 | 15 | ND (< 2.5) | ND (< 2.5) | 93 | ND (< 2.5) | 31 | ND (< 2.5) | CBMA = 103 |
| O109A2 | | 6/3/1998 | ND (< 5) | 73 | 52 | 6.9 | ND (< 5) | ND (< 5) | ND (< 5) | 93 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 116 |
| O109A2 | | 12/9/1998 | ND (< 1) | 62.9 | 32.5 | 7.17 | 5.59 | ND (< 1) | ND (< 1) | 59.2 | ND (< 1) | 3.75 | ND (< 1) | CBMA = 102 |
| O109A2 | Dup | 12/9/1998 | ND (< 2.5) | 73.1 | 41.8 | 7.22 | 5.55 | ND (< 2.5) | ND (< 2.5) | 68.7 | ND (< 2.5) | 3.95 | ND (< 2.5) | CBMA = 101 |
| O109A2 | | 6/8/1999 | ND (< 10.0) | 149 | 123 | 15.6 | 24.9 | ND (< 10.0) | ND (< 10.0) | 91.5 | ND (< 10.0) | 94.8 | ND (< 10.0) | |
| O109A2 | | 12/9/1999 | ND (< 1.67) | 63.4 | 71.5 | 11.2 | 15.2 | ND (< 1.67) | ND (< 1.67) | 59.3 | ND (< 1.67) | 37.3 | ND (< 1.67) | |
| O109A2 | | 6/6/2000 | ND (< 1.0) | 60 | 59 | 7.3 | 14 | ND (< 1.0) | ND (< 1.0) | 53 | ND (< 1.0) | 50 | ND (< 1.0) | |
| O109A2 | | 12/6/2000 | ND (< 1.0) | 66 | 55 | 9.7 | 16 | ND (< 1.0) | ND (< 1.0) | 52 | ND (< 1.0) | 48 | ND (< 1.0) | |
| O109A2 | | 6/21/2001 | ND (< 1.0) | 67 | 35 | 6.6 | 14 | ND (< 1.0) | ND (< 1.0) | 36 | ND (< 1.0) | 66 | ND (< 1.0) | |
| O109A2 | Dup | 6/21/2001 | ND (< 1.0) | 54 | 32 | 6.6 | 8.6 | ND (< 1.0) | ND (< 1.0) | 39 | ND (< 1.0) | 26 | ND (< 1.0) | |
| O109A2 | | 6/27/2003 | ND (< 1.0) | 27 | 15 | 7.2 | 7.9 | ND (< 1.0) | ND (< 1.0) | 25 | ND (< 1.0) | 16 | ND (< 1.0) | |
| O109A2 | Dup | 6/27/2003 | ND (< 0.50) | 27 | 14 | 6.8 | 7.5 | ND (< 0.50) | ND (< 0.50) | 22 | ND (< 0.50) | 9.9 | ND (< 0.50) | |
| O109A2 | | 6/21/2005 | ND (< 0.50) | 16 | 29 | 7.3 | 9.7 | ND (< 0.50) | ND (< 0.50) | 48 | 0.67 | 14 | ND (< 0.50) | |
| O109A2 | | 6/20/2007 | ND (< 0.50) | 28 | 52 | 10 | 20 | ND (< 0.50) | ND (< 0.50) | 72 | 1.2 | 44 | ND (< 0.50) | |
| O109A2 | | 6/9/2009 | ND (< 0.50) | 18 | 18 | 6.1 | 8.3 | ND (< 0.50) | ND (< 0.50) | 27 | ND (< 0.50) | 22 | ND (< 0.50) | |
| O109A2 | | 6/14/2011 | ND (< 0.50) | 28 | 42 | 13 | 18 | ND (< 0.50) | ND (< 0.50) | 55 | 1.4 | 51 | ND (< 0.50) | |
| O109A2 | | 6/19/2013 | ND (< 0.50) | 29 | 32 | 13 | 17 | ND (< 0.50) | ND (< 0.50) | 49 | 1.2 | 44 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O110A1 | | 9/17/1992 | ND (< 1) | 190 | 190 | ND (< 1) | ND (< 5) | ND (< 1) | ND (< 1) | 78 | ND (< 1) | 24 | ND (< 1) | BDCHLMA = 1 ; CHLFM = 11 |
| O110A1 | | 12/3/1992 | ND (< 5) | 140 | 130 | 16 | - | ND (< 5) | - | - | ND (< 5) | 21 | ND (< 10) | |
| O110A1 | | 3/3/1993 | ND (< 1) | 230 | 180 | 18 | ND (< 5) | ND (< 1) | ND (< 1) | 57 | ND (< 1) | 27 | ND (< 1) | CHLFM = 5 |
| O110A1 | | 6/7/1993 | ND (< 0.5) | 120 | 46 | 6.4 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 32 | ND (< 0.5) | 8 | ND (< 0.5) | Xylenes = 0.6 |
| O110A1 | | 9/7/1993 | ND (< 0.5) | 110 | 58 | 8.9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 32 | ND (< 0.5) | 20 | ND (< 0.5) | CHLFM = 1.7 |
| O110A1 | | 12/7/1993 | ND (< 5) | 120 | 78 | 15 | - | ND (< 5) | - | 60 | ND (< 5) | 30 | ND (< 10) | |
| O110A1 | | 3/10/1994 | ND (< 1) | 120 | 79 | 11 | - | ND (< 1) | ND (< 1) | 49 | ND (< 1) | 21 | ND (< 1) | CHLFM = 2.1 |
| O110A1 | | 6/7/1994 | ND (< 0.5) | 150 | 93 | 16 | - | ND (< 0.5) | ND (< 0.5) | 51 | ND (< 0.5) | 23 | ND (< 0.5) | CHLFM = 3.3 |
| O110A1 | | 9/2/1994 | ND (< 0.5) | 180 | 140 | 16 | - | ND (< 0.5) | ND (< 0.5) | 53 | ND (< 0.5) | 20 | ND (< 0.5) | CHLFM = 3.5 ; Freon 11 = 1.1 |
| O110A1 | | 12/12/1994 | ND (< 5) | 120 | 96 | 14 | - | ND (< 5) | - | 51 | ND (< 5) | 26 | ND (< 10) | |
| O110A1 | | 3/3/1995 | ND (< 0.5) | 26 | 18 | 3.3 | - | 0.5 | ND (< 0.5) | 13 | ND (< 0.5) | 3.1 | ND (< 0.5) | 1,1,2-TCA = 0.56 ; CHLFM = 1.1 |
| O110A1 | | 6/9/1995 | ND (< 0.5) | 32 | 20 | 4.8 | - | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | 3.5 | ND (< 0.5) | CHLFM = 1.3 |
| O110A1 | | 9/6/1995 | ND (< 0.5) | 56 | 34 | 8 | - | ND (< 0.5) | ND (< 0.5) | 16 | ND (< 0.5) | 11 | ND (< 0.5) | CHLFM = 1.9 |
| O110A1 | | 12/8/1995 | ND (< 5) | 25 | 9.2 | ND (< 5) | ND (< 5) | ND (< 5) | - | 9.2 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O110A1 | | 3/6/1996 | ND (< 0.5) | 13 | 5.3 | 1.1 | 1.9 | ND (< 0.5) | ND (< 0.5) | 2.7 | ND (< 0.5) | 2 | ND (< 0.5) | CHLFM = 0.86 |
| O110A1 | | 6/10/1996 | ND (< 0.5) | 15 | 5.9 | 1.3 | 2.6 | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | 1.3 | ND (< 0.5) | 1,1,2,2-TCA = 1.2 ; CBMA = 99 ; CHLFM = 0.76 |
| O110A1 | | 9/11/1996 | ND (< 0.5) | 7.9 | 2.8 | 0.56 | 1.2 | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | 1 | ND (< 0.5) | CBMA = 95 |
| O110A1 | | 12/12/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | MC = 5.1 |
| O110A1 | | 3/5/1997 | ND (< 0.5) | 2.2 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | CBMA = 91 |
| O110A1 | | 6/5/1997 | ND (< 0.5) | 5.9 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | 1.1 | ND (< 0.5) | CBMA = 96 ; MC = 1.3 |
| O110A1 | | 9/10/1997 | ND (< 0.5) | 17 | 3.4 | 1.9 | 1.6 | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | 2 | ND (< 0.5) | CBMA = 99 ; CHLFM = 1 |
| O110A1 | | 12/8/1997 | ND (< 0.5) | 5.4 | 1.5 | ND (< 0.5) | 0.67 | ND (< 0.5) | ND (< 0.5) | 0.75 | ND (< 0.5) | 7.3 | ND (< 0.5) | CBMA = 96 ; MC = 0.87 |
| O110A1 | | 6/5/1998 | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| O110A1 | | 12/10/1998 | ND (< 0.5) | 5.17 | 1.26 | ND (< 0.5) | 0.653 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.65 | ND (< 0.5) | CBMA = 98.3 |
| O110A1 | | 6/8/1999 | ND (< 0.500) | 14.6 | 1.85 | 1.03 | 1.36 | ND (< 0.500) | ND (< 0.500) | 0.840 | ND (< 0.500) | 2.30 | ND (< 0.500) | |
| O110A1 | | 12/9/1999 | ND (< 1.25) | 28.1 | 1.99 | 2.54 | 3.42 | ND (< 1.25) | ND (< 1.25) | 1.61 | ND (< 1.25) | 3.4 | ND (< 1.25) | CHLFM = 1.61 |
| O110A1 | Dup | 12/9/1999 | ND (< 0.834) | 44.4 | 3.39 | 3.91 | 6.13 | ND (< 0.834) | ND (< 0.834) | 2.46 | ND (< 0.834) | 6.53 | ND (< 0.834) | CHLFM = 2.39 |
| O110A1 | | 6/6/2000 | ND (< 1.0) | 49 | 5.0 | 3.3 | 5.5 | ND (< 1.0) | ND (< 1.0) | 3.9 | ND (< 1.0) | 3.2 | ND (< 1.0) | CHLFM = 2.9 |
| O110A1 | | 12/5/2000 | ND (< 0.50) | 42 | 4.4 | 3.3 | 5.1 | ND (< 0.50) | ND (< 0.50) | 3.8 | ND (< 0.50) | 4.0 | ND (< 0.50) | CHLFM = 2.2 |
| O110A1 | | 6/22/2001 | ND (< 0.50) | 21 | 2.1 | 1.3 | 1.7 | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | 2.7 | ND (< 0.50) | CHLFM = 0.96 |
| O110A1 | | 6/27/2003 | ND (< 0.50) | 8.0 | 0.78 | 0.63 | 1.0 | ND (< 0.50) | ND (< 0.50) | 0.75 | ND (< 0.50) | 5.6 | ND (< 0.50) | |
| O110A1 | | 6/21/2005 | ND (< 0.50) | 66 | 16 | 4.8 | 12 | ND (< 0.50) | ND (< 0.50) | 19 | ND (< 0.50) | 17 | ND (< 0.50) | CHLFM = 0.80 |
| O110A1 | | 6/12/2007 | ND (< 5.0) | 620 | 11 | 6.4 | 11 | ND (< 5.0) | ND (< 5.0) | 26 | ND (< 5.0) | 36 | ND (< 5.0) | |
| O110A1 | | 6/10/2009 | ND (< 5.0) | 680 | 5.7 | 6.4 | 8.9 | ND (< 5.0) | ND (< 5.0) | 17 | ND (< 5.0) | 17 | ND (< 5.0) | |
| O110A1 | | 6/14/2011 | ND (< 5.0) | 390 | ND (< 5.0) | 6.6 | 7.8 | ND (< 5.0) | ND (< 5.0) | 10 | ND (< 5.0) | 9.5 | ND (< 5.0) | |
| O110A1 | | 6/19/2013 | ND (< 0.50) | 170 | 2.8 | 5.1 | 6.0 | ND (< 0.50) | ND (< 0.50) | 7.3 | ND (< 0.50) | 5.9 | ND (< 0.50) | |
| O110A1 | | 6/10/2014 | ND (< 0.50) | 150 | 2.4 | 4.5 | 5.2 | ND (< 0.50) | ND (< 0.50) | 7.1 | ND (< 0.50) | 4.5 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O111A2 | | 9/15/1992 | ND (< 1) | 330 | 570 | 33 | ND (< 5) | 2 | ND (< 1) | 230 | ND (< 1) | 2.8 | ND (< 1) | CHLFM = 9.8 |
| O111A2 | | 12/3/1992 | ND (< 5) | 76 | 91 | 9.2 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O111A2 | | 3/3/1993 | ND (< 1) | 110 | 150 | 12 | ND (< 5) | ND (< 1) | ND (< 1) | 66 | ND (< 1) | 2.4 | ND (< 1) | CHLFM = 2.8 |
| O111A2 | | 6/7/1993 | ND (< 0.5) | 110 | 140 | 9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 65 | ND (< 0.5) | 7.8 | ND (< 0.5) | |
| O111A2 | | 9/8/1993 | ND (< 1) | 380 | 410 | 19 | ND (< 5) | ND (< 1) | ND (< 1) | 110 | ND (< 1) | 20 | ND (< 1) | CHLFM = 2.4 ; Freon 11 = 3.7 |
| O111A2 | | 12/7/1993 | ND (< 5) | 410 | 340 | 20 | - | ND (< 5) | - | 130 | ND (< 5) | 32 | ND (< 10) | |
| O111A2 | | 3/10/1994 | ND (< 1) | 380 | 280 | 15 | - | 1.4 | ND (< 1) | 100 | ND (< 1) | 24 | ND (< 1) | |
| O111A2 | Dup | 3/10/1994 | ND (< 1) | 370 | 280 | 14 | - | ND (< 1) | ND (< 1) | 110 | ND (< 1) | 39 | ND (< 1) | |
| O111A2 | | 6/7/1994 | ND (< 2.5) | 1,400 | 770 | 25 | - | ND (< 2.5) | ND (< 2.5) | 190 | ND (< 2.5) | 110 | ND (< 2.5) | CHLFM = 2.8 |
| O111A2 | | 9/2/1994 | ND (< 2.5) | 710 | 220 | 12 | - | ND (< 2.5) | ND (< 2.5) | 120 | ND (< 2.5) | 4.9 | ND (< 2.5) | |
| O111A2 | | 12/12/1994 | ND (< 5) | 36 | 8.6 | ND (< 5) | ND (< 5) | ND (< 5) | - | 14 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O111A2 | Dup | 12/12/1994 | ND (< 5) | 39 | 9 | ND (< 5) | ND (< 5) | ND (< 5) | - | 15 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O111A2 | | 3/3/1995 | ND (< 2.5) | 420 | 130 | 6.7 | - | ND (< 2.5) | ND (< 2.5) | 70 | ND (< 2.5) | 2.8 | ND (< 2.5) | |
| O111A2 | | 6/9/1995 | ND (< 2.5) | 620 | 230 | 11 | - | ND (< 2.5) | ND (< 2.5) | 96 | ND (< 2.5) | 51 | ND (< 2.5) | |
| O111A2 | | 9/8/1995 | ND (< 12) | 1,100 | 510 | 22 | - | ND (< 12) | ND (< 12) | 160 | ND (< 12) | 160 | ND (< 12) | CHLFM = 12 |
| O111A2 | | 12/11/1995 | ND (< 5) | 910 | 310 | 17 | ND (< 50) | ND (< 5) | - | 110 | ND (< 5) | 15 | ND (< 10) | |
| O111A2 | Dup | 12/11/1995 | ND (< 5) | 900 | 300 | 17 | - | ND (< 5) | - | 120 | ND (< 5) | 15 | ND (< 10) | |
| O111A2 | | 3/7/1996 | ND (< 5) | 260 | 100 | ND (< 5) | 17 | ND (< 5) | ND (< 5) | 29 | ND (< 5) | 21 | ND (< 5) | |
| O111A2 | | 6/7/1996 | ND (< 12) | 910 | 320 | 22 | 63 | ND (< 12) | ND (< 12) | 140 | ND (< 12) | 70 | ND (< 12) | CBMA = 100 ; MC = 16 |
| O111A2 | | 9/13/1996 | 14 | 970 | 320 | 21 | 32 | ND (< 12) | ND (< 12) | 150 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 95 |
| O111A2 | | 12/16/1996 | ND (< 50) | 690 | 200 | ND (< 50) | ND (< 50) | ND (< 50) | - | 120 | ND (< 50) | ND (< 50) | ND (< 100) | |
| O111A2 | | 3/7/1997 | ND (< 5) | 150 | 41 | 6.1 | ND (< 5) | ND (< 5) | ND (< 5) | 51 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 114 |
| O111A2 | | 6/9/1997 | ND (< 2.5) | 140 | 30 | 5.5 | 5.5 | ND (< 2.5) | ND (< 2.5) | 44 | ND (< 2.5) | 2.7 | ND (< 2.5) | CBMA = 103 |
| O111A2 | | 9/11/1997 | ND (< 2.5) | 340 | 110 | 14 | 19 | ND (< 2.5) | ND (< 2.5) | 93 | ND (< 2.5) | 7.9 | ND (< 2.5) | CBMA = 109 ; CHLFM = 4.4 |
| O111A2 | | 12/4/1997 | ND (< 5) | 290 | 110 | 13 | 20 | ND (< 5) | ND (< 5) | 86 | ND (< 5) | 15 | ND (< 5) | CBMA = 99 |
| O111A2 | | 6/3/1998 | ND (< 5) | 99 | 26 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 43 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 119 |
| O111A2 | | 12/9/1998 | ND (< 2.5) | 115 | 24.7 | 3.95 | 4.96 | ND (< 2.5) | ND (< 2.5) | 40.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 98.7 |
| O111A2 | | 6/8/1999 | ND (< 12.5) | 391 | 117 | ND (< 12.5) | 26.7 | ND (< 12.5) | ND (< 12.5) | 65.9 | ND (< 12.5) | 77.3 | ND (< 12.5) | |
| O111A2 | | 12/9/1999 | ND (< 25) | 724 | 291 | ND (< 25) | 71.8 | ND (< 25) | ND (< 25) | 108 | ND (< 25) | 178 | ND (< 25) | |
| O111A2 | | 6/6/2000 | ND (< 5.0) | 380 | 120 | 10 | 35 | ND (< 5.0) | ND (< 5.0) | 58 | ND (< 5.0) | 140 | ND (< 5.0) | |
| O111A2 | Dup | 6/6/2000 | ND (< 5.0) | 400 | 130 | 8.9 | 31 | ND (< 5.0) | ND (< 5.0) | 59 | ND (< 5.0) | 140 | ND (< 5.0) | |
| O111A2 | | 12/5/2000 | ND (< 10) | 520 | 160 | ND (< 10) | 33 | ND (< 10) | ND (< 10) | 69 | ND (< 10) | 160 | ND (< 10) | |
| O111A2 | | 6/22/2001 | ND (< 5.0) | 440 | 130 | 7.5 | 27 | ND (< 5.0) | ND (< 5.0) | 62 | ND (< 5.0) | 180 | ND (< 5.0) | |
| O111A2 | | 6/27/2003 | ND (< 5.0) | 370 | 83 | 10 | 30 | ND (< 5.0) | ND (< 5.0) | 45 | ND (< 5.0) | 210 | ND (< 5.0) | |
| O111A2 | | 6/21/2005 | ND (< 5.0) | 510 | 190 | 25 | 80 | ND (< 5.0) | ND (< 5.0) | 140 | ND (< 5.0) | 66 | ND (< 5.0) | |
| O111A2 | | 6/12/2007 | ND (< 5.0) | 460 | 240 | 23 | 96 | ND (< 5.0) | ND (< 5.0) | 190 | ND (< 5.0) | 140 | ND (< 5.0) | |
| O111A2 | | 6/10/2009 | ND (< 5.0) | 430 | 180 | 17 | 65 | ND (< 5.0) | ND (< 5.0) | 120 | ND (< 5.0) | 140 | ND (< 5.0) | |
| O111A2 | | 6/14/2011 | ND (< 5.0) | 330 | 150 | 15 | 54 | ND (< 5.0) | ND (< 5.0) | 100 | ND (< 5.0) | 120 | ND (< 5.0) | |
| O111A2 | | 6/19/2013 | ND (< 5.0) | 230 | 95 | 19 | 44 | ND (< 5.0) | ND (< 5.0) | 92 | ND (< 5.0) | 85 | ND (< 5.0) | |
| O111A2 | | 6/10/2014 | ND (< 2.5) | 160 | 71 | 11 | 25 | ND (< 2.5) | ND (< 2.5) | 55 | ND (< 2.5) | 59 | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| O112A1 | | 9/17/1992 | 1 | 54 | 25 | 10 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | BDCHLMA = 0.7 ; CHLFM = 2.3 |
| O112A1 | | 12/3/1992 | ND (< 5) | 32 | 13 | 6.7 | ND (< 5) | ND (< 5) | ND (< 10) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O112A1 | | 3/9/1993 | 1.2 | 42 | 16 | 7.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.3 | ND (< 0.5) | CHLFM = 1.6 |
| O112A1 | | 6/7/1993 | 0.9 | 30 | 9.9 | 3.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | CHLFM = 0.5 |
| O112A1 | | 9/9/1993 | 0.78 | 25 | 8.4 | 5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | CHLFM = 0.59 |
| O112A1 | | 12/8/1993 | ND (< 5) | 25 | 6.1 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O112A1 | | 3/7/1994 | 1.2 | 36 | 9.3 | 4.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | CHLFM = 1.4 |
| O112A1 | | 6/3/1994 | 1.5 | 34 | 10 | 5.8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.7 | ND (< 0.5) | CHLFM = 0.94 |
| O112A1 | | 9/2/1994 | 1.1 | 26 | 7.7 | 3.9 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | CHLFM = 0.87 |
| O112A1 | | 12/12/1994 | ND (< 5) | 21 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O112A1 | | 3/3/1995 | ND (< 0.5) | 13 | 2.8 | 1 | - | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.51 |
| O112A1 | | 6/7/1995 | ND (< 0.5) | 4.4 | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Benzene = 1.3 ; Toluene = 1.9 ; Xylenes = 0.8 |
| O112A1 | | 9/5/1995 | 1.4 | 15 | 3.5 | 0.94 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | CHLFM = 0.97 |
| O112A1 | | 12/6/1995 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O112A1 | | 3/5/1996 | 0.69 | 10 | 2.1 | 0.62 | 0.87 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.89 |
| O112A1 | | 6/5/1996 | 0.68 | 8.2 | 1.4 | 0.6 | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 ; CHLFM = 0.56 |
| O112A1 | | 9/10/1996 | 0.59 | 5.9 | 1.1 | 0.58 | 0.75 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| O112A1 | | 12/10/1996 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O112A1 | Dup | 12/10/1996 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O112A1 | | 3/4/1997 | 0.86 | 7.5 | 1.9 | 0.9 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.84 | ND (< 0.5) | CBMA = 106 |
| O112A1 | | 6/4/1997 | 1.6 | 12 | 2.9 | 1 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | CBMA = 107 ; CHLFM = 0.65 |
| O112A1 | Dup | 6/4/1997 | 1.5 | 12 | 2.9 | 1 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | CBMA = 107 ; CHLFM = 0.63 |
| O112A1 | | 9/10/1997 | 0.62 | 5.9 | 1.1 | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| O112A1 | | 12/5/1997 | 0.67 | 6.4 | 1.2 | 0.9 | 0.71 | ND (< 0.5) | 0.63 | ND (< 0.5) | ND (< 0.5) | 0.68 | ND (< 0.5) | CBMA = 88 |
| O112A1 | | 6/5/1998 | ND (< 0.5) | 4.6 | 0.55 | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| O112A1 | | 12/11/1998 | ND (< 0.5) | 8.33 | 1.07 | 0.651 | 1.03 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.711 | ND (< 0.5) | CBMA = 95.7 |
| O112A1 | | 6/8/1999 | 0.513 | 8.34 | 1.34 | ND (< 0.500) | 0.909 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.532 | ND (< 0.500) | |
| O112A1 | | 12/15/1999 | ND (< 0.5) | 1.72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O112A1 | | 6/6/2000 | ND (< 0.50) | 7.7 | 0.72 | ND (< 0.50) | 0.82 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.64 | ND (< 0.50) | |
| O112A1 | | 12/5/2000 | ND (< 0.50) | 7.1 | 0.94 | 0.76 | 0.92 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | |
| O112A1 | Dup | 12/5/2000 | ND (< 0.50) | 9.0 | 1.2 | 0.82 | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O112A1 | | 12/6/2000 | ND (< 0.50) | 9.4 | 1.3 | 0.99 | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O112A1 | | 6/22/2001 | ND (< 250) | 4,000 | 620 | ND (< 250) | 410 | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | 1,100 | ND (< 250) | |
| O112A1 | | 6/27/2003 | ND (< 0.50) | 10 | 1.3 | 1.2 | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | |
| O112A1 | | 6/21/2005 | ND (< 0.50) | 15 | 2.9 | 3.2 | 4.5 | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | 3.9 | ND (< 0.50) | CHLFM = 1.3 |
| O112A1 | | 6/12/2007 | ND (< 0.50) | 29 | 4.9 | 3.2 | 5.4 | ND (< 0.50) | ND (< 0.50) | 7.2 | ND (< 0.50) | 5.9 | ND (< 0.50) | CHLFM = 1.0 |
| O112A1 | | 6/9/2009 | ND (< 0.50) | 450 | 6.4 | 4.3 | 8.5 | ND (< 0.50) | ND (< 0.50) | 17 | ND (< 0.50) | 17 | ND (< 0.50) | CHLFM = 1.2 |
| O112A1 | | 6/14/2011 | ND (< 5.0) | 880 | 6.2 | 6.0 | 8.9 | ND (< 5.0) | ND (< 5.0) | 14 | ND (< 5.0) | 17 | ND (< 5.0) | |
| O112A1 | | 6/19/2013 | ND (< 5.0) | 650 | ND (< 5.0) | 8.0 | 9.9 | ND (< 5.0) | ND (< 5.0) | 13 | ND (< 5.0) | 9.0 | ND (< 5.0) | |
| O112A1 | | 6/10/2014 | ND (< 5.0) | 390 | ND (< 5.0) | ND (< 5.0) | 5.2 | ND (< 5.0) | ND (< 5.0) | 7.7 | ND (< 5.0) | 7.2 | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| O113A2 | | 9/16/1992 | ND (< 2.5) | 1,300 | 600 | 22 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 170 | ND (< 2.5) | 120 | ND (< 2.5) | CHLFM = 4.5 |
| O113A2 | | 12/4/1992 | ND (< 5) | 1,200 | 380 | 28 | ND (< 50) | ND (< 5) | - | 180 | ND (< 5) | 200 | ND (< 10) | |
| O113A2 | | 3/9/1993 | ND (< 12) | 2,000 | 760 | 28 | ND (< 50) | ND (< 12) | ND (< 12) | 170 | ND (< 12) | 120 | ND (< 12) | |
| O113A2 | | 6/3/1993 | ND (< 5) | 1,400 | 590 | 18 | ND (< 25) | ND (< 5) | ND (< 5) | 200 | ND (< 5) | 220 | ND (< 5) | |
| O113A2 | | 9/9/1993 | ND (< 5) | 1,800 | 550 | 29 | ND (< 25) | ND (< 5) | ND (< 5) | 160 | ND (< 5) | 260 | ND (< 5) | |
| O113A2 | | 12/8/1993 | ND (< 10) | 1,700 | 390 | 20 | - | ND (< 10) | - | 140 | ND (< 10) | 240 | ND (< 20) | |
| O113A2 | Dup | 12/8/1993 | ND (< 10) | 1,600 | 390 | 21 | - | ND (< 10) | - | 140 | ND (< 10) | 240 | ND (< 20) | |
| O113A2 | | 3/7/1994 | ND (< 5) | 1,700 | 340 | 19 | - | ND (< 5) | ND (< 5) | 140 | ND (< 5) | 24 | ND (< 5) | |
| O113A2 | | 6/3/1994 | ND (< 10) | 2,100 | 550 | 21 | ND (< 10) | ND (< 10) | ND (< 10) | 180 | ND (< 10) | 320 | ND (< 10) | MC = 11 |
| O113A2 | | 9/2/1994 | ND (< 5) | 1,300 | 190 | 11 | - | ND (< 5) | ND (< 5) | 160 | ND (< 5) | 13 | ND (< 5) | |
| O113A2 | | 12/12/1994 | ND (< 5) | 1,000 | 96 | 10 | - | ND (< 5) | - | 110 | ND (< 5) | 14 | ND (< 10) | |
| O113A2 | | 3/3/1995 | ND (< 0.5) | 75 | 8.2 | 0.54 | - | ND (< 0.5) | ND (< 0.5) | 11 | ND (< 0.5) | 0.97 | ND (< 0.5) | |
| O113A2 | | 6/9/1995 | ND (< 0.5) | 1,200 | 200 | 10 | ND (< 0.5) | 0.53 | ND (< 0.5) | 89 | ND (< 0.5) | 27 | ND (< 0.5) | CHLFM = 1.7 |
| O113A2 | | 9/8/1995 | ND (< 2.5) | 2,400 | 290 | 21 | - | ND (< 2.5) | ND (< 2.5) | 130 | ND (< 2.5) | 270 | ND (< 2.5) | CHLFM = 5.8 ; MC = 5.6 |
| O113A2 | | 12/11/1995 | ND (< 5) | 1,900 | 310 | 20 | - | ND (< 5) | - | 150 | ND (< 5) | 42 | ND (< 10) | |
| O113A2 | Dup | 12/11/1995 | ND (< 5) | 1,900 | 330 | 20 | - | ND (< 5) | - | 150 | ND (< 5) | 44 | ND (< 10) | |
| O113A2 | | 3/7/1996 | ND (< 2.5) | 96 | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 24 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| O113A2 | | 6/10/1996 | ND (< 25) | 1,000 | 170 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 96 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 101 |
| O113A2 | | 9/13/1996 | ND (< 25) | 830 | 130 | ND (< 25) | 26 | ND (< 25) | ND (< 25) | 90 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 101 |
| O113A2 | | 12/16/1996 | ND (< 25) | 740 | 89 | ND (< 25) | ND (< 25) | ND (< 25) | - | 69 | ND (< 25) | 75 | ND (< 50) | |
| O113A2 | | 3/7/1997 | ND (< 1) | 500 | 43 | 6.5 | 2.5 | 1.4 | ND (< 1) | 54 | ND (< 1) | 20 | ND (< 1) | 1,1,2-TCA = 1 ; CBMA = 108 ; CHLFM = 2.1 |
| O113A2 | | 6/9/1997 | ND (< 5) | 330 | 46 | 5.6 | 7 | ND (< 5) | ND (< 5) | 52 | ND (< 5) | 9.9 | ND (< 5) | CBMA = 100 |
| O113A2 | | 9/11/1997 | ND (< 5) | 340 | 40 | ND (< 5) | 6.5 | ND (< 5) | ND (< 5) | 49 | ND (< 5) | 12 | ND (< 5) | CBMA = 97 |
| O113A2 | | 12/4/1997 | ND (< 5) | 240 | 29 | ND (< 5) | 6.6 | ND (< 5) | ND (< 5) | 35 | ND (< 5) | 17 | ND (< 5) | CBMA = 94 |
| O113A2 | | 6/5/1998 | ND (< 25) | 470 | 60 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 58 | ND (< 25) | 45 | ND (< 25) | CBMA = 121 ; MC = 28 |
| O113A2 | | 12/9/1998 | ND (< 25) | 452 | 90.2 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 59.9 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 101 |
| O113A2 | | 6/8/1999 | ND (< 25.0) | 398 | 58.5 | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | 53.6 | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | |
| O113A2 | | 12/15/1999 | ND (< 17.9) | 539 | 60.1 | ND (< 17.9) | 21.9 | ND (< 17.9) | ND (< 17.9) | 64.5 | ND (< 17.9) | 70.4 | ND (< 17.9) | |
| O113A2 | | 6/6/2000 | ND (< 13) | 950 | 150 | ND (< 13) | 46 | ND (< 13) | ND (< 13) | 110 | ND (< 13) | 110 | ND (< 13) | |
| O113A2 | | 12/5/2000 | ND (< 10) | 750 | 110 | 10 | 34 | ND (< 10) | ND (< 10) | 91 | ND (< 10) | 92 | ND (< 10) | |
| O113A2 | | 6/22/2001 | ND (< 0.50) | 7.5 | 0.92 | 0.67 | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O113A2 | | 6/27/2003 | ND (< 10) | 840 | 120 | 14 | 50 | ND (< 10) | ND (< 10) | 69 | ND (< 10) | 490 | ND (< 10) | |
| O113A2 | | 6/21/2005 | ND (< 5.0) | 770 | 120 | 13 | 41 | ND (< 5.0) | ND (< 5.0) | 82 | ND (< 5.0) | 100 | ND (< 5.0) | |
| O113A2 | | 6/12/2007 | ND (< 2.0) | 340 | 45 | 8.1 | 18 | ND (< 2.0) | ND (< 2.0) | 45 | ND (< 2.0) | 78 | ND (< 2.0) | |
| O113A2 | | 6/11/2008 | ND (< 2.0) | 310 | 45 | 7.8 | 18 | ND (< 2.0) | ND (< 2.0) | 41 | ND (< 2.0) | 100 | ND (< 2.0) | |
| O113A2 | | 12/10/2008 | ND (< 5.0) | 440 | 82 | 14 | 35 | ND (< 5.0) | ND (< 5.0) | 68 | ND (< 5.0) | 210 | ND (< 5.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O113A2 | | 6/9/2009 | ND (< 2.5) | 450 | 77 | 12 | 36 | ND (< 2.5) | ND (< 2.5) | 59 | ND (< 2.5) | 150 | ND (< 2.5) | |
| O113A2 | | 6/14/2011 | ND (< 2.5) | 270 | 55 | 10 | 22 | ND (< 2.5) | ND (< 2.5) | 39 | ND (< 2.5) | 95 | ND (< 2.5) | |
| O113A2 | | 6/19/2013 | ND (< 2.5) | 350 | 62 | 14 | 27 | ND (< 2.5) | ND (< 2.5) | 48 | ND (< 2.5) | 120 | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| O114A2 | | 9/18/1992 | ND (< 5) | 1,600 | 620 | 60 | ND (< 25) | ND (< 5) | ND (< 5) | 260 | ND (< 5) | 40 | ND (< 5) | CHLFM = 8 |
| O114A2 | | 12/2/1992 | ND (< 5) | 2,900 | 620 | 79 | ND (< 120) | ND (< 5) | - | 310 | ND (< 5) | 120 | ND (< 10) | |
| O114A2 | | 3/12/1993 | ND (< 5) | 1,100 | 220 | 26 | ND (< 25) | ND (< 5) | ND (< 5) | 80 | ND (< 5) | 20 | ND (< 5) | |
| O114A2 | | 6/4/1993 | ND (< 5) | 1,300 | 300 | 29 | ND (< 25) | ND (< 5) | ND (< 5) | 140 | ND (< 5) | 37 | ND (< 5) | MC = 5 |
| O114A2 | | 9/9/1993 | ND (< 10) | 4,500 | 700 | 74 | ND (< 50) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 160 | ND (< 10) | |
| O114A2 | | 12/13/1993 | ND (< 10) | 1,300 | 210 | 35 | - | ND (< 10) | - | 130 | ND (< 10) | 41 | ND (< 20) | |
| O114A2 | | 3/7/1994 | ND (< 5) | 1,400 | 200 | 27 | - | ND (< 5) | ND (< 5) | 120 | ND (< 5) | 38 | ND (< 5) | 1,1,2-TCA = 8.6 ; MC = 10 |
| O114A2 | | 6/6/1994 | ND (< 5) | 770 | 150 | 30 | ND (< 5) | ND (< 5) | ND (< 5) | 120 | ND (< 5) | 20 | ND (< 5) | |
| O114A2 | | 9/2/1994 | ND (< 5) | 770 | 54 | 17 | ND (< 5) | ND (< 5) | ND (< 5) | 130 | ND (< 5) | ND (< 5) | ND (< 5) | |
| O114A2 | | 12/6/1994 | ND (< 25) | 750 | 58 | ND (< 25) | ND (< 25) | ND (< 25) | - | 110 | ND (< 25) | ND (< 25) | ND (< 50) | |
| O114A2 | | 3/3/1995 | ND (< 5) | 540 | 55 | 10 | - | ND (< 5) | ND (< 5) | 80 | ND (< 5) | ND (< 5) | ND (< 5) | |
| O114A2 | | 6/7/1995 | ND (< 5) | 760 | 110 | 18 | - | ND (< 5) | ND (< 5) | 110 | ND (< 5) | 19 | ND (< 5) | |
| O114A2 | | 9/8/1995 | ND (< 10) | 540 | 86 | 17 | - | ND (< 10) | ND (< 10) | 100 | ND (< 10) | ND (< 10) | ND (< 10) | |
| O114A2 | | 12/11/1995 | ND (< 5) | 490 | 50 | 13 | - | ND (< 5) | - | 70 | ND (< 5) | ND (< 5) | ND (< 10) | |
| O114A2 | | 3/7/1996 | ND (< 10) | 560 | 92 | 11 | 14 | ND (< 10) | ND (< 10) | 79 | ND (< 10) | ND (< 10) | ND (< 10) | |
| O114A2 | | 6/7/1996 | ND (< 10) | 620 | 110 | 20 | 28 | ND (< 10) | ND (< 10) | 98 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 103 ; MC = 13 |
| O114A2 | | 9/13/1996 | ND (< 10) | 640 | 100 | 22 | 32 | ND (< 10) | ND (< 10) | 100 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 106 |
| O114A2 | | 12/16/1996 | ND (< 10) | 450 | 57 | 13 | 20 | ND (< 10) | - | 65 | ND (< 10) | ND (< 10) | ND (< 20) | |
| O114A2 | | 3/7/1997 | ND (< 2.5) | 110 | 11 | 3.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 28 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 109 |
| O114A2 | | 6/9/1997 | ND (< 1.2) | 410 | 48 | 10 | 17 | ND (< 1.2) | ND (< 1.2) | 46 | ND (< 1.2) | 18 | ND (< 1.2) | CBMA = 98 |
| O114A2 | | 9/12/1997 | ND (< 50) | 2,700 | 570 | ND (< 50) | 130 | ND (< 50) | ND (< 50) | 240 | ND (< 50) | 150 | ND (< 50) | CBMA = 98 |
| O114A2 | | 12/8/1997 | ND (< 50) | 1,100 | 150 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 140 | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 97 |
| O114A2 | | 6/5/1998 | ND (< 2.5) | 72 | 6.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 110 |
| O114A2 | | 12/11/1998 | ND (< 5) | 264 | 34.4 | ND (< 5) | 10.7 | ND (< 5) | ND (< 5) | 29.7 | ND (< 5) | 8.76 | ND (< 5) | CBMA = 98.3 |
| O114A2 | | 6/8/1999 | ND (< 25.0) | 1,000 | 110 | ND (< 25.0) | 36.1 | ND (< 25.0) | ND (< 25.0) | 74.2 | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | |
| O114A2 | | 12/15/1999 | ND (< 62.5) | 2,950 | 407 | ND (< 62.5) | 147 | ND (< 62.5) | ND (< 62.5) | 131 | ND (< 62.5) | 245 | ND (< 62.5) | |
| O114A2 | | 6/8/2000 | ND (< 25) | 2,700 | 330 | ND (< 25) | 47 | ND (< 25) | ND (< 25) | 180 | ND (< 25) | 150 | ND (< 25) | |
| O114A2 | | 12/5/2000 | ND (< 50) | 2,800 | 270 | ND (< 50) | 74 | ND (< 50) | ND (< 50) | 160 | ND (< 50) | 290 | ND (< 50) | |
| O114A2 | | 6/21/2001 | ND (< 25) | 1,500 | 130 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 82 | ND (< 25) | 100 | ND (< 25) | |
| O114A2 | | 6/27/2002 | ND (< 25) | 920 | 55 | ND (< 25) | 27 | ND (< 25) | ND (< 25) | 60 | ND (< 25) | 69 | ND (< 25) | |
| O114A2 | | 6/27/2003 | ND (< 20) | 2,300 | 230 | 21 | 88 | ND (< 20) | ND (< 20) | 140 | ND (< 20) | 430 | ND (< 20) | |
| O114A2 | | 9/2/2004 | ND (< 5.0) | 550 | 47 | ND (< 5.0) | 19 | ND (< 5.0) | ND (< 5.0) | 42 | ND (< 5.0) | 67 | ND (< 5.0) | |
| O114A2 | | 9/2/2004 | ND (< 5.0) | 470 | 37 | ND (< 5.0) | 18 | ND (< 5.0) | ND (< 5.0) | 28 | ND (< 5.0) | 40 | ND (< 5.0) | CT = 19 |
| O114A2 | | 6/21/2005 | ND (< 10) | 840 | 97 | 12 | 48 | ND (< 10) | ND (< 10) | 81 | ND (< 10) | 60 | ND (< 10) | |
| O114A2 | | 7/2/2006 | ND (< 5.0) | 1,400 | 150 | 12 | 50 | ND (< 5.0) | ND (< 5.0) | 90 | ND (< 5.0) | 190 | ND (< 5.0) | |
| O114A2 | | 6/13/2007 | ND (< 10) | 980 | 120 | 11 | 43 | ND (< 10) | ND (< 10) | 71 | ND (< 10) | 210 | ND (< 10) | |
| O114A2 | | 6/11/2008 | ND (< 10) | 720 | 84 | ND (< 10) | 31 | ND (< 10) | ND (< 10) | 52 | ND (< 10) | 110 | ND (< 10) | |
| O114A2 | | 12/10/2008 | ND (< 5.0) | 600 | 81 | 9.9 | 33 | ND (< 5.0) | ND (< 5.0) | 51 | ND (< 5.0) | 160 | ND (< 5.0) | |
| O114A2 | | 6/10/2009 | ND (< 10) | 460 | 46 | ND (< 10) | 25 | ND (< 10) | ND (< 10) | 39 | ND (< 10) | 63 | ND (< 10) | |
| O114A2 | | 6/9/2010 | ND (< 10) | 570 | 53 | ND (< 10) | 28 | ND (< 10) | ND (< 10) | 34 | ND (< 10) | 110 | ND (< 10) | |
| O114A2 | | 6/14/2011 | ND (< 2.5) | 560 | 47 | 12 | 27 | ND (< 2.5) | ND (< 2.5) | 41 | ND (< 2.5) | 88 | ND (< 2.5) | |
| O114A2 | | 6/12/2012 | ND (< 2.5) | 280 | 17 | 6.3 | 11 | ND (< 2.5) | ND (< 2.5) | 22 | ND (< 2.5) | 47 | ND (< 2.5) | |
| O114A2 | | 6/20/2013 | ND (< 2.5) | 340 | 24 | 8.7 | 15 | ND (< 2.5) | ND (< 2.5) | 24 | ND (< 2.5) | 93 | ND (< 2.5) | |
| O114A2 | | 6/11/2014 | ND (< 2.5) | 230 | 15 | 6.1 | 11 | ND (< 2.5) | ND (< 2.5) | 19 | ND (< 2.5) | 49 | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| O115A1 | | 9/21/1992 | ND (< 0.5) | 3.9 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.6 ; CHLFM = 4.9 |
| O115A1 | | 9/22/1992 | ND (< 0.5) | 3.9 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.6 ; CHLFM = 4.9 |
| O115A1 | | 12/4/1992 | ND (< 5) | 5.7 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 5.4 |
| O115A1 | | 3/10/1993 | ND (< 0.5) | 5.7 | 1.2 | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3.3 |
| O115A1 | | 6/4/1993 | ND (< 0.5) | 3.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| O115A1 | | 9/7/1993 | ND (< 0.5) | 5.3 | 0.61 | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.1 ; MC = 1.9 |
| O115A1 | | 12/8/1993 | ND (< 5) | 5.1 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O115A1 | | 3/8/1994 | ND (< 0.5) | 6.2 | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.7 |
| O115A1 | | 6/3/1994 | ND (< 0.5) | 7.8 | ND (< 0.5) | 1.6 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3.7 |
| O115A1 | | 9/2/1994 | ND (< 0.5) | 12 | 0.66 | 1.8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 4.9 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O115A1 | | 12/6/1994 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O115A1 | | 3/3/1995 | ND (< 0.5) | 20 | 0.8 | 0.64 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.8 |
| O115A1 | | 6/6/1995 | ND (< 0.5) | 15 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 |
| O115A1 | | 9/6/1995 | ND (< 0.5) | 14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| O115A1 | | 12/7/1995 | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O115A1 | | 3/6/1996 | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 |
| O115A1 | Dup | 3/6/1996 | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 |
| O115A1 | | 6/7/1996 | ND (< 0.5) | 16 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 ; CHLFM = 2 |
| O115A1 | | 9/11/1996 | ND (< 0.5) | 16 | 1.1 | 0.66 | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; CHLFM = 2.3 ; MC = 0.6 |
| O115A1 | | 12/11/1996 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O115A1 | | 3/5/1997 | ND (< 0.5) | 13 | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 88 ; CHLFM = 1.5 |
| O115A1 | | 6/4/1997 | ND (< 0.5) | 14 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 ; CHLFM = 1.8 |
| O115A1 | | 9/10/1997 | ND (< 0.5) | 12 | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 1.7 |
| O115A1 | | 12/5/1997 | ND (< 0.5) | 9.1 | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 ; CHLFM = 1.2 |
| O115A1 | | 6/3/1998 | ND (< 0.5) | 6.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; CHLFM = 1.3 |
| O115A1 | | 12/9/1998 | ND (< 0.5) | 9.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 ; CHLFM = 0.598 |
| O115A1 | | 6/10/1999 | ND (< 0.500) | 6.47 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| O115A1 | Dup | 6/10/1999 | ND (< 0.500) | 6.17 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| O115A1 | | 12/15/1999 | ND (< 0.5) | 7.14 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| O115A1 | | 6/6/2000 | ND (< 0.50) | 5.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O115A1 | | 12/6/2000 | ND (< 0.50) | 8.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O115A1 | | 6/20/2001 | ND (< 0.50) | 6.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O115A1 | | 6/25/2003 | ND (< 0.50) | 8.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O115A1 | | 6/23/2005 | ND (< 0.50) | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | MC = 5.1 |
| O115A1 | Dup | 6/23/2005 | ND (< 0.50) | 3.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | MC = 5.5 |
| O115A1 | Dup | 6/23/2005 | ND (< 0.50) | 3.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 5.0) | ND (< 0.50) | MC = 5.5 |
| O115A1 | | 6/13/2007 | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O115A1 | | 6/9/2009 | ND (< 0.50) | 3.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O115A1 | | 6/14/2011 | ND (< 0.50) | 4.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O115A1 | | 6/19/2013 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O116A1 | | 3/22/1993 | 1,000 | 6,600 | 26,000 | 280 | ND (< 500) | ND (< 100) | 2,100 | 2,000 | ND (< 100) | 8,200 | ND (< 100) | 1,2,4-TCB = 2,100 |
| O116A1 | | 8/16/1993 | 340 | 2,400 | 11,000 | ND (< 100) | - | ND (< 100) | 1,100 | 1,900 | ND (< 100) | 7,400 | ND (< 100) | 1,2,4-TCB = 2,600 ; Acetone = 13,000 ; Ethylbenzene = 800 ; Toluene = 300 ; Xylenes = 3,800 |
| O116A1 | | 9/14/1993 | 1,100 | 5,200 | 24,000 | 500 | ND (< 500) | ND (< 100) | 1,800 | 2,600 | ND (< 100) | 9,100 | ND (< 100) | 1,2,4-TCB = 5,200 ; CHLFM = 150 ; MC = 250 |
| O116A1 | | 11/3/1993 | 1,100 | 5,200 | 24,000 | 500 | ND (< 500) | ND (< 100) | 1,800 | 2,600 | ND (< 100) | 9,100 | ND (< 100) | 1,2,4-TCB = 5,200 ; CHLFM = 150 ; MC = 250 |
| O116A1 | | 12/10/1993 | 1,900 | 13,000 | 45,000 | 400 | - | ND (< 250) | 3,600 | 1,700 | ND (< 250) | 20,000 | ND (< 500) | 1,2,4-TCB = 4,000 ; 1,4-DCB = 52 ; Acetone = 24,000 ; Ethylbenzene = 3,400 ; MC = 340 ; Toluene = 1,800 ; Xylenes = 15,000 |
| O116A1 | | 3/7/1994 | 2,500 | 24,000 | 59,000 | ND (< 500) | ND (< 500) | ND (< 500) | 3,600 | ND (< 500) | ND (< 500) | 31,000 | ND (< 500) | 1,2,4-TCB = 3,200 ; 1,4-DCB = 52 |
| O116A1 | Dup | 3/7/1994 | 2,600 | 24,000 | 70,000 | ND (< 500) | ND (< 500) | ND (< 500) | 4,200 | ND (< 500) | ND (< 500) | 30,000 | ND (< 500) | 1,2,4-TCB = 3,900 ; 1,4-DCB = 60 |
| O116A1 | | 6/7/1994 | 3,300 | 17,000 | 79,000 | 880 | - | 280 | 3,900 | 4,800 | ND (< 250) | 36,000 | 270 | 1,2,4-TCB = 3,900 ; 1,4-DCB = 66 ; Acetone = 36,000 ; CHLFM = 340 ; CT = 420 ; Ethylbenzene = 4,500 ; MC = 1,000 ; Toluene = 2,100 ; Xylenes = 21,000 |
| O116A1 | Dup | 6/7/1994 | 6,200 | 17,000 | 81,000 | 890 | - | ND (< 250) | 3,500 | 4,900 | ND (< 250) | 35,000 | ND (< 250) | 1,2,4-TCB = 3,700 ; 1,4-DCB = 57 ; Acetone = 43,000 ; Ethylbenzene = 5,000 ; MC = 1,000 ; Toluene = 2,200 ; Xylenes = 22,000 |
| O116A1 | | 9/7/1994 | 3,500 | 23,000 | 65,000 | ND (< 250) | ND (< 1,000) | ND (< 250) | 6,800 | 670 | ND (< 250) | 47,000 | ND (< 250) | 1,2,4-TCB = 170,000 ; 1,4-DCB = 63 ; MC = 470 |
| O116A1 | | 12/9/1994 | 1,500 | 4,900 | 18,000 | ND (< 120) | ND (< 120) | ND (< 120) | 4,900 | 530 | ND (< 120) | 16,000 | ND (< 250) | 1,2,4-TCB = 7,300 ; 1,4-DCB = 43 ; Acetone = 6,900 ; Ethylbenzene = 2,500 ; Toluene = 660 ; Xylenes = 9,700 |
| O116A1 | | 3/6/1995 | 1,600 | 6,800 | 18,000 | ND (< 250) | ND (< 250) | ND (< 250) | 7,000 | 540 | ND (< 250) | 13,000 | ND (< 250) | 1,2,4-TCB = 9,100 ; 1,4-DCB = 42 |
| O116A1 | Dup | 3/6/1995 | 1,700 | 7,300 | 21,000 | ND (< 250) | ND (< 250) | ND (< 250) | 6,600 | 590 | ND (< 250) | 15,000 | ND (< 250) | 1,2,4-TCB = 8,700 ; 1,4-DCB = 44 |
| O116A1 | | 6/9/1995 | 3,500 | 82,000 | 210,000 | ND (< 250) | - | ND (< 250) | 6,300 | 660 | ND (< 250) | 38,000 | ND (< 250) | 1,2,4-TCB = 4,800 ; Ethylbenzene = 5,800 ; MC = 1,100 ; Toluene = 5,000 ; Xylenes = 25,000 |
| O116A1 | | 9/8/1995 | - | - | - | - | - | - | 2,600 | - | - | - | - | 1,2,4-TCB = 2,600 ; 1,4-DCB = 47 |
| O116A1 | Dup | 9/8/1995 | 2,300 | 23,000 | 71,000 | 810 | - | ND (< 500) | 5,000 | 3,100 | ND (< 500) | 13,000 | ND (< 500) | 1,2,4-TCB = 2,400 ; 1,4-DCB = 41 ; MC = 950 |
| O116A1 | | 12/11/1995 | 1,500 | 32,000 | 59,000 | ND (< 500) | - | ND (< 500) | 4,400 | 1,400 | ND (< 500) | 9,400 | ND (< 500) | 1,2,4-TCB = 2,300 ; 1,4-DCB = 34 ; Acetone = 14,000 ; Ethylbenzene = 3,200 ; MC = 840 ; Toluene = 2,800 |
| O116A1 | | 3/7/1996 | 2,200 | 25,000 | 43,000 | ND (< 500) | 1,400 | ND (< 500) | 4,200 | 550 | ND (< 500) | 12,000 | ND (< 500) | 1,4-DCB = 21 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O116A1 | Dup | 3/7/1996 | 2,400 | 26,000 | 43,000 | ND (< 500) | 1,400 | ND (< 500) | 4,400 | 550 | ND (< 500) | 13,000 | ND (< 500) | 1,4-DCB = 19 |
| O116A1 | | 6/11/1996 | 1,600 | 19,000 | 52,000 | 610 | 2,000 | ND (< 500) | 2,800 | 1,400 | ND (< 500) | 10,000 | ND (< 500) | 1,4-DCB = 19 ; CBMA = 102 ; MC = 730 |
| O116A1 | | 9/13/1996 | 1,700 | 21,000 | 68,000 | 830 | 3,000 | ND (< 500) | 3,100 | 2,400 | ND (< 500) | 11,000 | ND (< 500) | CBMA = 103 ; MC = 610 |
| O116A1 | | 12/16/1996 | ND (< 2,500) | 13,000 | 60,000 | ND (< 2,500) | ND (< 2,500) | ND (< 2,500) | NA | ND (< 2,500) | ND (< 2,500) | 10,000 | ND (< 5,000) | 1,2,4-TCB = 1,400 ; 1,4-DCB = 13 ; Xylenes = 5,500 |
| O116A1 | | 3/7/1997 | 130 | 2,500 | 4,800 | 150 | 180 | ND (< 100) | 600 | 480 | ND (< 100) | 820 | ND (< 100) | 1,2,4-TCB = 750 ; CBMA = 113 ; MC = 110 |
| O116A1 | Dup | 3/7/1997 | 150 | 2,200 | 4,100 | 170 | 210 | ND (< 100) | 720 | 500 | ND (< 100) | 930 | ND (< 100) | 1,2,4-TCB = 1,100 ; CBMA = 91 ; MC = 120 |
| O116A1 | | 6/9/1997 | 450 | 3,900 | 10,000 | 770 | 1,000 | ND (< 100) | 1,200 | 1,700 | ND (< 100) | 3,300 | ND (< 100) | Acetone = 9,100 ; CBMA = 100 ; Ethylbenzene = 500 ; MC = 260 ; Toluene = 330 ; Xylenes = 2,300 |
| O116A1 | Dup | 6/9/1997 | 510 | 4,100 | 7,700 | 520 | 750 | ND (< 100) | 1,000 | 1,200 | ND (< 100) | 3,000 | ND (< 100) | Acetone = 6,000 ; CBMA = 97 ; Ethylbenzene = 370 ; MC = 200 ; Toluene = 250 ; Xylenes = 1,700 |
| O116A1 | | 9/12/1997 | 310 | 3,200 | 5,900 | 590 | 640 | ND (< 120) | 1,000 | 1,800 | ND (< 120) | 1,700 | ND (< 120) | 1,2,4-TCB = 590 ; CBMA = 104 ; MC = 200 |
| O116A1 | | 12/8/1997 | 66 | 770 | 1,200 | 72 | 79 | ND (< 50) | 240 | 270 | ND (< 50) | 350 | ND (< 50) | 1,2,4-TCB = 350 ; Acetone = 1,100 ; CBMA = 100 ; Ethylbenzene = 58 ; Xylenes = 400 |
| O116A1 | Dup | 12/8/1997 | 60 | 850 | 1,200 | 74 | 85 | ND (< 50) | 240 | 270 | ND (< 50) | 390 | ND (< 50) | 1,2,4-TCB = 410 ; CBMA = 96 ; Ethylbenzene = 57 ; Xylenes = 300 |
| O116A1 | | 6/5/1998 | 39 | 760 | 730 | 41 | 100 | ND (< 25) | 130 | 230 | ND (< 25) | 540 | ND (< 25) | CBMA = 113 |
| O116A1 | Dup | 6/5/1998 | 34 | 730 | 710 | 38 | 92 | ND (< 25) | 110 | 220 | ND (< 25) | 560 | ND (< 25) | CBMA = 111 ; MC = 25 |
| O116A1 | | 12/11/1998 | 74 | 1,960 | 615 | ND (< 25) | 72 | ND (< 25) | 35.4 | 144 | ND (< 25) | 371 | ND (< 25) | CBMA = 95 |
| O116A1 | | 6/9/1999 | 145 | 3,660 | 1,890 | ND (< 125) | 164 | ND (< 125) | 295 | 257 | ND (< 125) | 874 | ND (< 125) | |
| O116A1 | Dup | 6/9/1999 | ND (< 250) | 5,030 | 1,970 | ND (< 250) | ND (< 250) | ND (< 250) | 265 | 266 | ND (< 250) | 954 | ND (< 250) | |
| O116A1 | | 12/9/1999 | 72.7 | 2,240 | 831 | 73.5 | 158 | ND (< 50) | 89.4 | 410 | ND (< 50) | 648 | ND (< 50) | |
| O116A1 | | 6/8/2000 | ND (< 100) | 1,800 | 350 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 310 | ND (< 100) | |
| O116A1 | | 12/5/2000 | 51 | 1,300 | 880 | 67 | 130 | ND (< 25) | 81 | 380 | ND (< 25) | 790 | ND (< 25) | Xylenes = 84 |
| O116A1 | | 6/22/2001 | ND (< 250) | 4,800 | 1,000 | ND (< 250) | ND (< 250) | ND (< 250) | 330 | ND (< 250) | ND (< 250) | ND (< 1,000) | ND (< 250) | |
| O116A1 | | 6/27/2003 | 69 | 1,100 | 510 | 27 | 44 | ND (< 25) | 89 | 200 | ND (< 25) | 490 | ND (< 25) | |
| O116A1 | | 6/20/2005 | 23 | 440 | 220 | 6.2 | 11 | ND (< 5.0) | 60 | 250 | ND (< 5.0) | 260 | ND (< 5.0) | |
| O116A1 | | 6/28/2006 | 12 | 87 | 27 | 2.8 | 6.1 | ND (< 0.5) | 30 | 64 | ND (< 0.5) | 61 | ND (< 0.5) | 1,2,4-TCB = 28 ; Freon 11 = 1.4 |
| O116A1 | | 6/12/2007 | 37 | 290 | 160 | 12 | 23 | ND (< 2.0) | 28 | 350 | ND (< 2.0) | 330 | ND (< 2.0) | 1,2,4-TCB = 21 |
| O116A1 | | 6/11/2008 | 9.5 | 32 | 12 | ND (< 2.0) | 4.3 | ND (< 2.0) | 27 | 23 | ND (< 2.0) | 31 | ND (< 2.0) | 1,2,4-TCB = 70 |
| O116A1 | | 6/9/2009 | 2.3 | 19 | 6.0 | 1.7 | 3.1 | ND (< 0.50) | 8.8 | 3.6 | ND (< 0.50) | 8.8 | ND (< 0.50) | 1,2,4-TCB = 24 |
| O116A1 | | 6/14/2011 | 1.7 | 13 | 3.7 | 1.7 | 4.6 | ND (< 0.50) | 5.6 | 1.6 | ND (< 0.50) | 5.1 | ND (< 0.50) | 1,2,4-TCB = 15 ; Freon 11 = 1.2 |
| O116A1 | | 6/18/2013 | 0.70 | 8.0 | 2.2 | 1.2 | 3.0 | ND (< 0.50) | 2.0 | 0.71 | ND (< 0.50) | 1.6 | ND (< 0.50) | 1,2,4-TCB = 5.4 |
| | | | | | | | | | | | | | | |
| O117A2 | | 3/22/1993 | 1,300 | 12,000 | 30,000 | ND (< 100) | ND (< 500) | ND (< 100) | 4,000 | ND (< 100) | ND (< 100) | 4,900 | ND (< 100) | 1,2,4-TCB = 1,600 |
| O117A2 | Dup | 3/22/1993 | 1,100 | 12,000 | 31,000 | ND (< 100) | ND (< 500) | ND (< 100) | 6,400 | ND (< 100) | ND (< 100) | 4,400 | ND (< 100) | |
| O117A2 | | 8/16/1993 | 19 | 180 | 330 | 15 | - | ND (< 5) | 53 | ND (< 5) | ND (< 5) | 85 | ND (< 5) | 1,2,4-TCB = 450 ; Xylenes = 30 |
| O117A2 | Dup | 8/16/1993 | 17 | 160 | 300 | 10 | - | ND (< 5) | 52 | ND (< 5) | ND (< 5) | 110 | ND (< 5) | 1,2,4-TCB = 430 ; Xylenes = 28 |
| O117A2 | | 9/14/1993 | 20 | 90 | 170 | 17 | ND (< 2.5) | ND (< 0.5) | 62 | 0.72 | ND (< 0.5) | 59 | ND (< 0.5) | 1,2,4-TCB = 440 ; CHLFM = 2.1 ; Freon 11 = 19 |
| O117A2 | | 12/7/1993 | 26 | 200 | 250 | 24 | - | ND (< 5) | 130 | ND (< 5) | ND (< 5) | 130 | ND (< 10) | 1,2,4-TCB = 430 ; Freon 11 = 19 ; Xylenes = 30 |
| O117A2 | Dup | 12/7/1993 | 27 | 200 | 250 | 26 | - | ND (< 5) | 120 | ND (< 5) | ND (< 5) | 120 | ND (< 10) | 1,2,4-TCB = 470 ; Freon 11 = 19 ; Xylenes = 31 |
| O117A2 | | 3/7/1994 | 44 | 340 | 500 | 23 | - | ND (< 2.5) | 79 | ND (< 2.5) | ND (< 2.5) | 200 | ND (< 2.5) | Freon 11 = 7 |
| O117A2 | | 6/7/1994 | 7.7 | 30 | 74 | 22 | - | ND (< 0.5) | ND (< 10) | ND (< 0.5) | ND (< 0.5) | 15 | ND (< 0.5) | 1,2,4-TCB = 15 ; CHLEA = 2.5 ; CHLFM = 3.7 ; Freon 11 = 24 |
| O117A2 | | 9/7/1994 | 4.7 | 37 | 62 | 23 | - | ND (< 0.5) | 11 | 0.51 | ND (< 0.5) | 15 | ND (< 0.5) | 1,2,4-TCB = 49 ; CHLEA = 2.5 ; CHLFM = 4 ; Freon 11 = 20 |
| O117A2 | | 12/8/1994 | ND (< 5) | 19 | 28 | 14 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | 1,2,4-TCB = 38 |
| O117A2 | Dup | 12/8/1994 | ND (< 5) | 21 | 27 | 14 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | 1,2,4-TCB = 33 |
| O117A2 | | 3/6/1995 | 10 | 87 | 110 | 19 | - | ND (< 0.5) | ND (< 0.5) | 0.51 | ND (< 0.5) | 74 | ND (< 0.5) | CHLEA = 1.8 ; CHLFM = 2.2 ; Freon 11 = 10 ; MC = 0.52 |
| O117A2 | | 6/9/1995 | 13 | 110 | 140 | 19 | - | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | 110 | ND (< 0.5) | 1,2,4-TCB = 16 ; CHLEA = 1.7 ; CHLFM = 1.7 ; Freon 11 = 9.7 ; MC = 1.1 |
| O117A2 | | 9/8/1995 | 21 | 130 | 150 | 25 | - | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 120 | ND (< 2.5) | CHLFM = 2.8 ; MC = 8 |
| O117A2 | | 12/11/1995 | 16 | 100 | 110 | 17 | - | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | 95 | ND (< 10) | |
| O117A2 | | 4/4/1996 | 20 | 120 | 110 | 27 | 27 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 77 | ND (< 2.5) | CHLFM = 2.6 ; Freon 11 = 12 ; MC = 8.8 |
| O117A2 | | 6/11/1996 | 14 | 90 | 81 | 19 | 19 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 39 | ND (< 2.5) | CBMA = 101 ; Freon 11 = 5.4 ; MC = 3.3 |
| O117A2 | | 9/12/1996 | 14 | 80 | 70 | 19 | 20 | ND (< 1.2) | ND (< 1.2) | 1.2 | ND (< 1.2) | 28 | ND (< 1.2) | CBMA = 100 ; CHLFM = 1.7 ; Freon 11 = 7.8 ; MC = 5.4 |
| O117A2 | | 12/13/1996 | ND (< 5) | 7.5 | 7.4 | 8.8 | 6.2 | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O117A2 | | 3/7/1997 | 5.5 | 26 | 17 | 11 | 8.1 | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | 7.6 | ND (< 0.5) | CBMA = 101 ; CHLFM = 1.7 ; Freon 11 = 2.3 ; MC = 1 |
| O117A2 | | 6/9/1997 | 6.6 | 32 | 26 | 20 | 9.8 | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | 15 | ND (< 0.5) | CBMA = 92 ; CHLEA = 0.66 ; CHLFM = 1.9 ; Freon 11 = 5.8 ; MC = 2 |
| O117A2 | | 9/11/1997 | 8.3 | 38 | 34 | 20 | 12 | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | 16 | ND (< 0.5) | CBMA = 98 ; CHLEA = 0.56 ; CHLFM = 1.9 ; Freon 11 = 6.4 ; MC = 2.2 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O117A2 | | 12/8/1997 | 0.59 | 12 | 7.4 | 11 | 3.9 | ND (< 0.5) | 3.3 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 ; CHLFM = 1.2 ; Freon 11 = 1 ; Xylenes = 1.5 |
| O117A2 | | 6/3/1998 | ND (< 0.5) | 3 | 3.6 | 9.5 | 3.4 | ND (< 0.5) | 1.2 | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 ; CHLFM = 1.6 |
| O117A2 | Dup | 6/3/1998 | ND (< 0.5) | 2.9 | 3.6 | 9 | 3.3 | ND (< 0.5) | 1.1 | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 ; CHLFM = 1.7 |
| O117A2 | | 12/9/1998 | 1.56 | 12.5 | 18.1 | 15.5 | 8.8 | ND (< 0.5) | ND (< 0.5) | 0.908 | ND (< 0.5) | 1.81 | ND (< 0.5) | CBMA = 95.7 ; CHLFM = 1.11 ; Freon 11 = 3.67 |
| O117A2 | | 6/9/1999 | 1.57 | 13.3 | 23.0 | 13.5 | 9.76 | ND (< 0.500) | ND (< 0.500) | 0.825 | ND (< 0.500) | 2.90 | ND (< 0.500) | CHLFM = 1.26 ; Freon 11 = 1.75 ; MC = 1.21 |
| O117A2 | | 12/15/1999 | 1.56 | 28.3 | 42.1 | 48.1 | 34.3 | ND (< 1.25) | ND (< 1.25) | 1.97 | ND (< 1.25) | 15.8 | ND (< 1.25) | CHLFM = 2.11 ; Freon 11 = 8.43 |
| O117A2 | | 6/8/2000 | 1.8 | 27 | 39 | 39 | 29 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | 22 | ND (< 0.50) | CHLFM = 1.7 ; Freon 11 = 8.7 |
| O117A2 | | 12/5/2000 | 1.1 | 21 | 25 | 23 | 17 | ND (< 0.50) | 0.55 | 1.1 | ND (< 0.50) | 12 | ND (< 0.50) | CHLFM = 1.3 ; Freon 11 = 6.0 |
| O117A2 | | 6/22/2001 | ND (< 2.5) | 71 | 37 | 26 | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 16 | ND (< 2.5) | |
| O117A2 | | 6/27/2003 | 1.5 | 49 | 55 | 27 | 26 | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | 19 | ND (< 0.50) | CHLFM = 1.3 ; DCDFM = 1.2 ; Freon 11 = 5.1 |
| O117A2 | | 6/20/2005 | 0.78 | 37 | 13 | 6.4 | 18 | ND (< 0.50) | 1.4 | 0.55 | ND (< 0.50) | 12 | ND (< 0.50) | CHLFM = 1.1 ; Freon 11 = 13 |
| O117A2 | | 6/28/2006 | 1.2 | 49 | 11 | 5.1 | 13 | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | 13 | ND (< 0.50) | 1,2,4-TCB = 2.1 ; CHLFM = 1.3 ; Freon 11 = 11 |
| O117A2 | | 6/12/2007 | 1.7 | 50 | 11 | 5.5 | 15 | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | 18 | ND (< 0.50) | 1,2,4-TCB = 4.9 ; CHLFM = 1.3 ; Freon 11 = 15 |
| O117A2 | | 6/12/2008 | ND (< 0.50) | 25 | 11 | 8.9 | 18 | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | 10 | ND (< 0.50) | 1,2,4-TCB = 1.6 ; CHLFM = 1.2 ; Freon 11 = 11 |
| O117A2 | | 6/9/2009 | ND (< 0.50) | 19 | 8.6 | 8.0 | 16 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | 5.9 | ND (< 0.50) | 1,2,4-TCB = 1.0 ; CHLFM = 1.2 ; Freon 11 = 9.3 |
| O117A2 | | 6/14/2011 | 0.51 | 29 | 8.1 | 10 | 15 | ND (< 0.50) | 0.75 | 3.1 | ND (< 0.50) | 7.6 | ND (< 0.50) | 1,2,4-TCB = 2.2 ; CHLFM = 1.2 ; Freon 11 = 7.9 |
| O117A2 | | 6/18/2013 | 0.57 | 39 | 5.8 | 2.6 | 6.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | CHLFM = 1.0, 1,2,4-TCB = 2.1, Freon 11 = 6.1 |
| | | | | | | | | | | | | | | |
| O118B | | 3/23/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 8/16/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 9/14/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 11/3/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 12/7/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 0.5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O118B | | 3/7/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 6/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 9/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 0.5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O118B | | 3/3/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 0.5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O118B | | 3/7/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 6/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| O118B | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 99 |
| O118B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O118B | Dup | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O118B | | 3/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| O118B | | 6/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| O118B | | 9/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 114 |
| O118B | | 12/8/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 79 |
| O118B | | 6/3/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 ; MC = 1 |
| O118B | | 12/9/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| O118B | | 6/9/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| O118B | | 1/28/2000 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| O118B | | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O118B | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O118B | | 6/22/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| O118B | | 6/26/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/27/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/23/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/12/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/11/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/9/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | Dup | 6/9/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/8/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | Dup | 6/8/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | Dup | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O118B | | 6/12/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O118B | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O119A1 | | 3/23/1993 | 7.7 | 34 | 28 | 8.4 | - | 1.9 | 42 | 28 | ND (< 0.5) | 51 | ND (< 0.5) | CHLFM = 19 ; Freon 11 = 1.7 |
| O119A1 | | 6/4/1993 | 5 | 35 | 22 | 6.3 | - | 1.4 | - | 39 | ND (< 0.5) | - | ND (< 0.5) | CHLFM = 6 ; Freon 11 = 3.6 |
| O119A1 | | 9/9/1993 | 10 | 39 | 18 | 5.9 | - | 1.8 | 47 | 16 | ND (< 0.5) | 34 | ND (< 0.5) | CHLEA = 4.5 ; CHLFM = 6.9 ; Freon 11 = 4.4 |
| O119A1 | | 12/7/1993 | 7.2 | 30 | 12 | 6.5 | - | ND (< 5) | 48 | 20 | ND (< 5) | 46 | ND (< 10) | |
| O119A1 | | 3/8/1994 | 6.5 | 37 | 15 | 5.4 | - | 2.1 | 12 | 20 | ND (< 0.5) | 47 | ND (< 0.5) | CHLEA = 5.3 ; CHLFM = 3 ; Freon 11 = 1 |
| O119A1 | | 6/7/1994 | 1 | 7.7 | 2.3 | 0.77 | - | 0.88 | ND (< 10) | 3.6 | ND (< 0.5) | 3.9 | ND (< 0.5) | Benzene = 2.4 ; CHLFM = 0.6 ; Toluene = 2.9 ; Xylenes = 1.9 |
| O119A1 | | 9/7/1994 | 7 | 44 | 12 | 3.5 | - | 1.4 | 30 | 13 | ND (< 0.5) | 29 | ND (< 0.5) | CHLEA = 4.5 ; CHLFM = 1.9 ; Freon 11 = 3.1 |
| O119A1 | Dup | 9/7/1994 | 6.6 | 46 | 13 | 3.6 | - | 1.4 | 32 | 14 | ND (< 0.5) | 30 | ND (< 0.5) | CHLEA = 4.9 ; CHLFM = 2 ; Freon 11 = 3.3 |
| O119A1 | | 12/8/1994 | 6.5 | 56 | 7.8 | ND (< 5) | - | ND (< 5) | - | 10 | ND (< 5) | 25 | ND (< 10) | |
| O119A1 | | 3/7/1995 | 4.1 | 38 | 7.4 | 3 | - | 1.4 | ND (< 0.5) | 14 | ND (< 0.5) | 26 | ND (< 0.5) | CHLEA = 2.9 ; CHLFM = 1.5 ; Freon 11 = 1.7 |
| O119A1 | | 6/5/1995 | 1.1 | 16 | 3 | 2.3 | - | 1 | - | 17 | ND (< 0.5) | 2.9 | ND (< 0.5) | CHLEA = 0.67 ; CHLFM = 1.8 |
| O119A1 | | 9/6/1995 | 1.7 | 21 | 9.6 | 4.8 | - | 1.9 | 2.2 | 26 | 0.52 | 25 | ND (< 0.5) | CHLFM = 3.2 ; Freon 11 = 1.4 |
| O119A1 | Dup | 9/6/1995 | 1.4 | 18 | 8.2 | 4.1 | - | 1.9 | 2.1 | 22 | ND (< 0.5) | 21 | ND (< 0.5) | CHLFM = 2.8 ; Freon 11 = 1 |
| O119A1 | | 12/5/1995 | ND (< 5) | 50 | 11 | 5.4 | - | ND (< 5) | - | 22 | ND (< 5) | 48 | ND (< 10) | |
| O119A1 | | 3/6/1996 | 2.6 | 33 | 16 | 7.5 | 15 | ND (< 0.5) | 1.2 | 36 | 0.87 | 71 | ND (< 0.5) | CHLFM = 4.7 ; Freon 11 = 3.5 |
| O119A1 | | 6/11/1996 | 1.4 | 23 | 8.7 | 5.9 | 5.9 | 1.9 | 1.9 | 30 | 0.58 | 11 | ND (< 0.5) | CBMA = 109 ; CHLFM = 4.9 ; Freon 11 = 0.89 |
| O119A1 | | 9/11/1996 | 3 | 34 | 20 | 11 | 17 | 2.5 | ND (< 0.5) | 44 | 1.4 | 59 | ND (< 0.5) | CBMA = 112 ; CHLFM = 5.3 ; Freon 11 = 4.9 ; MC = 0.84 |
| O119A1 | | 12/11/1996 | ND (< 5) | 31 | 20 | 9.8 | 12 | ND (< 5) | NA | 53 | ND (< 5) | 170 | ND (< 10) | |
| O119A1 | | 3/5/1997 | 1.9 | 32 | 21 | 9.4 | 16 | 1.9 | ND (< 1.2) | 46 | ND (< 1.2) | 130 | ND (< 1.2) | CBMA = 100 ; CHLFM = 4.5 ; Freon 11 = 5.4 |
| O119A1 | | 6/5/1997 | ND (< 2.5) | 30 | 19 | 12 | 11 | ND (< 2.5) | ND (< 2.5) | 50 | ND (< 2.5) | 69 | ND (< 2.5) | CBMA = 94 ; CHLFM = 4.7 ; Freon 11 = 5 |
| O119A1 | | 9/11/1997 | 1.4 | 15 | 6.4 | 4.5 | 6.1 | 0.77 | 14 | 16 | ND (< 0.5) | 12 | ND (< 0.5) | CBMA = 112 ; CHLFM = 1.7 ; Freon 11 = 1.2 |
| O119A1 | | 12/5/1997 | 0.9 | 10 | 4 | 3.4 | 6 | ND (< 0.5) | 14 | 14 | ND (< 0.5) | 1.5 | ND (< 0.5) | CBMA = 100 ; CHLFM = 0.79 ; Freon 11 = 0.84 |
| O119A1 | | 6/4/1998 | ND (< 12) | 71 | 250 | 31 | 31 | ND (< 12) | ND (< 12) | 130 | ND (< 12) | 140 | ND (< 12) | CBMA = 108 |
| O119A1 | Dup | 6/4/1998 | ND (< 12) | 80 | 220 | 40 | 45 | ND (< 12) | ND (< 12) | 120 | ND (< 12) | 80 | ND (< 12) | CBMA = 101 |
| O119A1 | | 12/10/1998 | ND (< 25) | 498 | 955 | 84.5 | 54.5 | ND (< 25) | ND (< 25) | 158 | ND (< 25) | 278 | ND (< 25) | CBMA = 101 |
| O119A1 | | 6/9/1999 | ND (< 250) | 5,190 | 12,100 | 279 | 357 | ND (< 250) | ND (< 250) | 683 | ND (< 250) | 2,210 | ND (< 250) | |
| O119A1 | | 12/14/1999 | 10.3 | 999 | 1,040 | 105 | 59.2 | ND (< 6.25) | ND (< 6.25) | 138 | ND (< 6.25) | 562 | 8.42 | |
| O119A1 | | 6/6/2000 | 130 | 21,000 | 25,000 | 460 | 780 | ND (< 100) | ND (< 100) | 1,500 | ND (< 100) | 6,900 | ND (< 100) | |
| O119A1 | | 12/5/2000 | ND (< 100) | 6,000 | 10,000 | 550 | 580 | ND (< 100) | ND (< 100) | 690 | ND (< 100) | 3,300 | ND (< 100) | |
| O119A1 | | 6/22/2001 | ND (< 500) | 8,800 | 12,000 | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | 4,000 | ND (< 500) | |
| O119A1 | | 6/27/2002 | 87 | 1,700 | 2,000 | 200 | 89 | ND (< 20) | ND (< 20) | 230 | ND (< 20) | 990 | ND (< 20) | |
| O119A1 | | 6/27/2003 | 41 | 460 | 320 | 74 | 41 | ND (< 10) | 11 | 91 | ND (< 10) | 930 | ND (< 10) | |
| O119A1 | | 9/2/2004 | 770 | 33,000 | 33,000 | 280 | 2,600 | ND (< 200) | 1,100 | 2,700 | ND (< 200) | 15,000 | ND (< 200) | |
| O119A1 | | 9/2/2004 | 690 | 30,000 | 29,000 | 250 | 2,200 | ND (< 200) | 1,000 | 2,700 | ND (< 200) | 12,000 | ND (< 200) | |
| O119A1 | | 6/22/2005 | 640 | 16,000 | 22,000 | 650 | 2,500 | ND (< 250) | 760 | 2,500 | ND (< 250) | 15,000 | ND (< 250) | |
| O119A1 | | 6/27/2006 | 800 | 16,000 | 13,000 | 250 | ND (< 200) | ND (< 200) | 1,400 | 2,200 | ND (< 200) | 10,000 | ND (< 200) | |
| O119A1 | | 3/6/2007 | 260 | 400 | 1,800 | 64 | 67 | ND (< 50) | 1,000 | 3,000 | ND (< 50) | 2,700 | ND (< 50) | 1,2,4-TCB = 270 |
| O119A1 | | 6/12/2007 | 360 | 9,900 | 13,000 | 320 | 330 | ND (< 100) | 1,200 | 2,500 | ND (< 100) | 6,900 | ND (< 100) | 1,2,4-TCB = 230 |
| O119A1 | | 6/11/2008 | 560 | 27,000 | 30,000 | 570 | 680 | ND (< 200) | 2,000 | 2,000 | ND (< 200) | 19,000 | ND (< 200) | 1,2,4-TCB = 500 |
| O119A1 | | 12/10/2008 | 1,100 | 27,000 | 27,000 | ND (< 500) | 670 | ND (< 500) | 2,400 | 3,000 | ND (< 500) | 24,000 | ND (< 500) | 1,2,4-TCB = 1,300 ; Ethylbenzene = 2,100 ; Toluene = 720 ; Xylenes = 7,700 |
| O119A1 | | 6/10/2009 | 960 | 28,000 | 24,000 | 330 | 1,500 | ND (< 250) | 2,400 | 3,200 | ND (< 250) | 15,000 | ND (< 250) | 1,2,4-TCB = 670 |
| O119A1 | | 6/9/2010 | 520 | 10,000 | 9,600 | ND (< 250) | 810 | ND (< 250) | 1,500 | 2,800 | ND (< 250) | 6,700 | ND (< 250) | 1,2,4-TCB = 750 |
| O119A1 | | 6/14/2011 | 380 | 6,300 | 7,500 | 92 | 300 | ND (< 50) | 1,300 | 3,100 | ND (< 50) | 5,800 | ND (< 50) | 1,2,4-TCB = 1,000 |
| O119A1 | | 8/26/2011 | 330 | 4,800 | 6,300 | 81 | ND (< 250) | ND (< 0.50) | 1,100 | 3,000 | 3.8 | 5,700 | 7.9 | 1,1,2-TCA = 1.0 ; 1,2,4-TCB = 720 ; 1,3-DCB = 2.1 ; 1,4-DCB = 16 ; CHLBZ = 2.9 ; Freon 11 = 1.1 |
| O119A1 | | 9/29/2011 | 180 | 1,400 | 3,000 | 54 | 91 | ND (< 50) | 780 | 2,400 | ND (< 50) | 2,700 | ND (< 50) | 1,2,3-TCB = 360 |
| O119A1 | | 10/17/2011 | 120 | 1,000 | 2,700 | ND (< 50) | 140 | ND (< 50) | 610 | 2,300 | ND (< 50) | 2,300 | ND (< 50) | 1,2,3-TCB = 200 |
| O119A1 | | 6/12/2012 | 150 | 3,500 | 6,300 | 100 | 270 | ND (< 50) | 940 | 4,500 | ND (< 50) | 4,400 | ND (< 50) | 1,2,3-TCB = 910 |
| O119A1 | | 6/20/2013 | 670 | 12,000 | 10,000 | 150 | 420 | ND (< 50) | 1,400 | 3,200 | ND (< 50) | 9,400 | ND (< 50) | 1,2,4-TCB = 1700 |
| O119A1 | | 6/11/2014 | 63 | 20 | 170 | 19 | 17 | ND (< 5.0) | 830 | 390 | ND (< 5.0) | 1,000 | ND (< 5.0) | 1,2,4-TCB = 870 , 1,4-DCB = 13 |
| | | | | | | | | | | | | | | |
| O120A2 | | 3/23/1993 | 70 | 6,200 | 1,800 | ND (< 25) | ND (< 120) | ND (< 25) | 35 | 45 | ND (< 25) | 360 | ND (< 25) | |
| O120A2 | | 6/4/1993 | 13 | 1,500 | 300 | 14 | ND (< 12) | ND (< 2.5) | 18 | 65 | ND (< 2.5) | 100 | ND (< 2.5) | Ethylbenzene = 12 ; Toluene = 8 ; Xylenes = 55 |
| O120A2 | | 9/9/1993 | 58 | 5,500 | 710 | 32 | ND (< 50) | ND (< 10) | ND (< 10) | 35 | ND (< 10) | 280 | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O120A2 | | 12/7/1993 | ND (< 50) | 9,000 | 690 | 75 | ND (< 50) | ND (< 50) | - | ND (< 50) | ND (< 50) | 340 | ND (< 100) | Xylenes = 53 |
| O120A2 | | 3/8/1994 | 38 | 3,200 | 430 | ND (< 12) | - | ND (< 12) | ND (< 12) | 30 | ND (< 12) | 210 | ND (< 12) | |
| O120A2 | | 6/7/1994 | 10 | 720 | 600 | 19 | - | ND (< 2.5) | ND (< 2.5) | 150 | ND (< 2.5) | 140 | ND (< 2.5) | CHLFM = 2.8 ; MC = 4.9 ; Xylenes = 5.6 |
| O120A2 | | 9/7/1994 | 5.3 | 680 | 460 | 19 | - | ND (< 2.5) | ND (< 2.5) | 150 | ND (< 2.5) | 130 | ND (< 2.5) | |
| O120A2 | | 12/8/1994 | ND (< 17) | 630 | 400 | 19 | - | ND (< 17) | ND (< 10) | 130 | ND (< 17) | 160 | ND (< 33) | |
| O120A2 | | 3/7/1995 | 6.4 | 390 | 310 | 14 | - | ND (< 2.5) | ND (< 2.5) | 120 | ND (< 2.5) | 77 | ND (< 2.5) | CHLFM = 2.7 ; Freon 11 = 3.2 |
| O120A2 | | 6/9/1995 | 3.8 | 460 | 240 | 12 | - | ND (< 2.5) | ND (< 2.5) | 94 | ND (< 2.5) | 46 | ND (< 2.5) | CHLFM = 3 |
| O120A2 | Dup | 6/9/1995 | 3.2 | 430 | 250 | 12 | - | ND (< 2.5) | ND (< 2.5) | 100 | ND (< 2.5) | 45 | ND (< 2.5) | CHLFM = 3.1 |
| O120A2 | | 9/8/1995 | ND (< 12) | 260 | 44 | ND (< 12) | ND (< 12) | ND (< 12) | 14 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | MC = 36 |
| O120A2 | | 11/17/1995 | 7.6 | 480 | 64 | 4.2 | - | 3 | 2.7 | 14 | ND (< 2.5) | 4.3 | ND (< 2.5) | CHLFM = 3.4 |
| O120A2 | | 12/11/1995 | 10 | 680 | 140 | 6.3 | - | ND (< 5) | ND (< 10) | 24 | ND (< 5) | 54 | ND (< 10) | |
| O120A2 | | 3/7/1996 | ND (< 2.5) | 120 | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| O120A2 | | 6/11/1996 | 15 | 710 | 140 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 39 | ND (< 10) | CBMA = 104 |
| O120A2 | Dup | 6/11/1996 | 12 | 710 | 150 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 38 | ND (< 10) | CBMA = 106 |
| O120A2 | | 9/13/1996 | 35 | 1,300 | 340 | 15 | 19 | ND (< 10) | 39 | 22 | ND (< 10) | 27 | ND (< 10) | CBMA = 100 |
| O120A2 | | 12/16/1996 | ND (< 50) | 2,000 | 610 | ND (< 50) | ND (< 50) | ND (< 50) | 30 | ND (< 50) | ND (< 50) | 100 | ND (< 100) | 1,2,4-TCB = 30 |
| O120A2 | | 3/5/1997 | ND (< 50) | 2,100 | 550 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 100 | ND (< 50) | CBMA = 90 |
| O120A2 | | 6/9/1997 | ND (< 50) | 1,800 | 530 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 79 | ND (< 50) | CBMA = 102 |
| O120A2 | | 9/12/1997 | ND (< 50) | 2,500 | 760 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 160 | ND (< 50) | CBMA = 102 |
| O120A2 | | 12/8/1997 | 150 | 5,400 | 1,900 | ND (< 120) | ND (< 120) | ND (< 120) | 230 | ND (< 120) | ND (< 120) | 1,200 | ND (< 120) | CBMA = 93 |
| O120A2 | | 6/5/1998 | ND (< 100) | 1,800 | 450 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 170 | ND (< 100) | CBMA = 109 |
| O120A2 | | 12/11/1998 | 53.3 | 2,270 | 676 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 142 | ND (< 50) | CBMA = 94.7 |
| O120A2 | | 6/9/1999 | ND (< 50.0) | 1,660 | 441 | ND (< 50.0) | ND (< 50.0) | ND (< 50.0) | ND (< 50.0) | ND (< 50.0) | ND (< 50.0) | 145 | ND (< 50.0) | |
| O120A2 | | 12/14/1999 | ND (< 125) | 3,280 | 559 | ND (< 125) | ND (< 125) | ND (< 125) | 21.2 | ND (< 125) | ND (< 125) | 305 | ND (< 125) | 1,2,4-TCB = 37.5 |
| O120A2 | | 6/8/2000 | 56 | 2,700 | 720 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 100 | ND (< 25) | |
| O120A2 | Dup | 6/8/2000 | 58 | 2,400 | 520 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 150 | ND (< 25) | |
| O120A2 | | 12/5/2000 | ND (< 50) | 2,800 | 630 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 200) | ND (< 50) | |
| O120A2 | | 6/22/2001 | ND (< 250) | 9,300 | 2,100 | ND (< 250) | ND (< 250) | ND (< 250) | 1,400 | ND (< 250) | ND (< 250) | 1,500 | ND (< 250) | |
| O120A2 | | 6/27/2003 | 52 | 2,900 | 740 | 39 | 41 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 340 | ND (< 25) | |
| O120A2 | | 6/22/2005 | ND (< 50) | 2,100 | 560 | ND (< 50) | 170 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 440 | ND (< 50) | |
| O120A2 | | 6/27/2006 | 43 | 1,000 | 230 | 14 | 25 | ND (< 10) | 27 | 11 | ND (< 10) | 240 | ND (< 10) | 1,2,4-TCB = 20 |
| O120A2 | | 3/6/2007 | 38 | 650 | 160 | 13 | 25 | ND (< 10) | 87 | 10 | ND (< 10) | 200 | ND (< 10) | 1,2,4-TCB = 110 |
| O120A2 | | 6/12/2007 | 56 | 1,400 | 300 | 24 | 31 | ND (< 10) | 100 | 22 | ND (< 10) | 340 | ND (< 10) | 1,2,4-TCB = 61 |
| O120A2 | | 6/11/2008 | 49 | 1,000 | 240 | 14 | 20 | ND (< 10) | 100 | ND (< 10) | ND (< 10) | 180 | ND (< 10) | 1,2,4-TCB = 120 |
| O120A2 | | 12/10/2008 | 28 | 790 | 210 | 12 | 22 | ND (< 10) | 67 | ND (< 10) | ND (< 10) | 160 | ND (< 10) | 1,2,3-TCB = 32 ; 1,2,4-TCB = 86 |
| O120A2 | | 6/10/2009 | 16 | 670 | 140 | 10 | 22 | ND (< 10) | 51 | ND (< 10) | ND (< 10) | 75 | ND (< 10) | 1,2,4-TCB = 41 |
| O120A2 | | 6/9/2010 | 16 | 640 | 130 | 8.4 | 24 | ND (< 5.0) | 45 | ND (< 5.0) | ND (< 5.0) | 71 | ND (< 5.0) | 1,2,4-TCB = 50 ; Freon 11 = 13 |
| O120A2 | | 6/14/2011 | 13 | 520 | 120 | 9.8 | 18 | ND (< 5.0) | 39 | 6.3 | ND (< 5.0) | 62 | ND (< 5.0) | 1,2,4-TCB = 57 |
| O120A2 | | 6/12/2012 | 9.7 | 460 | 97 | 7.8 | 12 | ND (< 5.0) | 32 | ND (< 5.0) | ND (< 5.0) | 50 | ND (< 5.0) | 1,2,3-TCB = 50 |
| O120A2 | | 6/20/2013 | 11 | 500 | 94 | 6.7 | 13 | ND (< 5.0) | 8.3 | 7.4 | ND (< 5.0) | 51 | ND (< 5.0) | 1,2,4-TCB = 21 |
| O120A2 | | 6/11/2014 | 13 | 130 | 100 | 21 | 16 | ND (< 5.0) | 16 | 110 | ND (< 5.0) | 110 | ND (< 5.0) | 1,2,4-TCB = 41 |
| | | | | | | | | | | | | | | |
| O121A2 | | 9/21/1992 | ND (< 0.5) | 2.3 | 61 | 23 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | 0.6 | ND (< 0.5) | CHLEA = 0.5 ; CHLFM = 4.2 ; Freon 11 = 11 |
| O121A2 | | 12/3/1992 | ND (< 5) | ND (< 5) | 45 | 18 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O121A2 | | 6/3/1993 | ND (< 0.5) | 1.6 | 27 | 13 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 ; Freon 11 = 8.1 |
| O121A2 | | 12/7/1993 | ND (< 5) | ND (< 5) | 47 | 23 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Freon 11 = 13 |
| O121A2 | | 6/7/1994 | ND (< 0.5) | 6.3 | 56 | 26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | 1.5 | ND (< 0.5) | CHLEA = 1.6 ; CHLFM = 4.1 ; Freon 11 = 15 |
| O121A2 | | 12/12/1994 | ND (< 5) | 8.1 | 46 | 19 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O121A2 | | 6/9/1995 | ND (< 0.5) | 9.2 | 48 | 21 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.85 | ND (< 0.5) | 1.9 | ND (< 0.5) | CHLFM = 3.2 ; Freon 11 = 13 |
| O121A2 | | 12/6/1995 | ND (< 5) | 12 | 46 | 22 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O121A2 | | 6/6/1996 | ND (< 0.5) | 12 | 33 | 16 | 39 | 0.57 | ND (< 0.5) | 0.94 | ND (< 0.5) | 2.4 | ND (< 0.5) | CBMA = 105 ; CHLFM = 2.8 ; Freon 11 = 12 |
| O121A2 | | 12/12/1996 | ND (< 5) | ND (< 5) | 6.9 | 6 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | MC = 5.2 |
| O121A2 | | 12/3/1997 | ND (< 0.5) | 4 | 7.2 | 3.4 | 5.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 91 ; Freon 11 = 3.2 |
| O121A2 | | 12/9/1999 | ND (< 0.625) | 14.1 | 47 | 14.8 | 35.7 | ND (< 0.625) | ND (< 0.625) | 0.865 | ND (< 0.625) | 2.26 | ND (< 0.625) | CHLFM = 3.32 ; Freon 11 = 15.6 |
| O121A2 | Dup | 12/9/1999 | ND (< 1) | 13.8 | 43.1 | 13.1 | 32.5 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 2) | ND (< 1) | CHLFM = 2.12 ; Freon 11 = 9.49 |
| O121A2 | | 6/21/2001 | ND (< 0.50) | 7.7 | 21 | 5.3 | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | Freon 11 = 3.8 |
| O121A2 | | 6/26/2003 | ND (< 0.50) | 6.0 | 12 | 3.1 | 7.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 3.3 |
| O121A2 | | 6/22/2005 | ND (< 0.50) | 14 | 28 | 7.5 | 32 | ND (< 0.50) | ND (< 0.50) | 0.62 | ND (< 0.50) | 3.3 | ND (< 0.50) | CHLFM = 2.1 ; Freon 11 = 13 |
| O121A2 | | 6/13/2007 | ND (< 0.50) | 9.7 | 16 | 3.5 | 13 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | CHLFM = 1.9 ; Freon 11 = 5.1 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| O121A2 | | 6/10/2009 | ND (< 0.50) | 22 | 19 | 6.1 | 17 * | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.8 | ND (< 0.50) | CHLFM = 2.0 ; Freon 11 = 7.7 |
| O121A2 | | 6/14/2011 | ND (< 0.50) | 23 | 16 | 5.5 | 17 | ND (< 0.50) | ND (< 0.50) | 0.53 | ND (< 0.50) | 3.0 | ND (< 0.50) | CHLFM = 1.8 ; Freon 11 = 7.7 |
| O121A2 | | 6/18/2013 | ND (< 0.50) | 21 | 13 | 4.2 | 12 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | CHLFM = 1.4, Freon 11 = 6.6 |
| O121A2 | Dup | 6/18/2013 | ND (< 0.50) | 21 | 13 | 4.2 | 13 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | CHLFM = 1.4, Freon 11 = 6.7 |
| O121A2 | | 6/10/2014 | ND (< 0.50) | 25 | 12 | 3.5 | 11 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | CHLFM = 1.2 , Freon 11 = 5.9 |
| | | | | | | | | | | | | | | |
| O122A2 | | 9/21/1992 | 1.8 | 15 | 13 | 5.9 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | CHLFM = 2.8 ; Freon 11 = 0.7 |
| O122A2 | | 12/3/1992 | ND (< 5) | 9.9 | 8 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| O122A2 | | 6/7/1993 | 2.6 | 16 | 12 | 5.3 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | CHLFM = 0.7 ; Freon 11 = 1.1 |
| O122A2 | Dup | 6/7/1993 | 2.6 | 17 | 12 | 5.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | CHLFM = 0.7 ; Freon 11 = 1.1 |
| O122A2 | | 12/13/1993 | ND (< 5) | 14 | 8.6 | 5.5 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O122A2 | | 6/3/1994 | 5.5 | 19 | 14 | 8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.2 | ND (< 0.5) | CHLFM = 1.4 ; Freon 11 = 1.8 |
| O122A2 | | 12/7/1994 | 5.4 | 20 | 9.1 | 6.4 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O122A2 | | 6/7/1995 | 6.2 | 22 | 10 | 5.4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.8 | ND (< 0.5) | CHLFM = 0.99 ; Freon 11 = 1.2 |
| O122A2 | | 12/7/1995 | 6.6 | 17 | 7.7 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| O122A2 | | 6/6/1996 | 5.9 | 15 | 9 | 4.3 | 8.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | CBMA = 108 ; CHLFM = 0.94 ; Freon 11 = 0.99 |
| O122A2 | | 12/12/1996 | ND (< 5) | 12 | 6.5 | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | MC = 5.5 |
| O122A2 | | 12/2/1997 | 4.6 | 11 | 16 | 9.4 | 8.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | CBMA = 100 ; CHLFM = 0.91 ; Freon 11 = 27 |
| O122A2 | | 12/9/1999 | 2.49 | 7.71 | 15.6 | 4.51 | 8.41 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | CHLFM = 0.817 ; Freon 11 = 11.4 |
| O122A2 | | 6/21/2001 | 4.2 | 17 | 19 | 5.5 | 9.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 0.61 ; Freon 11 = 11 |
| O122A2 | | 6/26/2003 | 0.60 | 3.2 | 0.90 | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 15 |
| O122A2 | | 6/22/2005 | 4.6 | 40 | 11 | 2.7 | 8.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | CHLFM = 1.2 ; Freon 11 = 4.1 |
| O122A2 | | 6/13/2007 | 7.3 | 27 | 4.7 | 1.7 | 3.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | CHLFM = 1.2 ; Freon 11 = 1.6 |
| O122A2 | | 6/10/2009 | 7.1 | 20 | 4.6 | 1.0 | 2.2 * | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.69 | ND (< 0.50) | Freon 11 = 1.6 |
| O122A2 | | 6/14/2011 | 8.4 | 21 | 4.5 | 2.4 | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.83 | ND (< 0.50) | Freon 11 = 2.7 |
| O122A2 | | 6/18/2013 | 8.0 | 17 | 4.4 | 2.8 | 3.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 2.2 |
| | | | | | | | | | | | | | | |
| O152B | | 6/9/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50 ,*) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | | 6/8/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | Dup | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | | 6/12/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | Dup | 6/20/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| O152B | | 6/11/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| O162A2 | | 8/16/2011 | 33 | 39 | 2.1 | 1.3 | 3.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | Freon 11 = 3.0 |
| O162A2 | | 9/30/2011 | 28 | 36 | 2.4 | 1.1 | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | Freon 11 = 2.6 |
| O162A2 | | 6/13/2012 | 49 | 46 | 2.2 | 1.4 | 3.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | Freon 11 = 2.6 |
| O162A2 | Dup | 6/13/2012 | 46 | 45 | 2.3 | 1.3 | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | Freon 11 = 2.8 |
| O162A2 | | 6/18/2013 | 45 | 42 | 2.0 | 1.2 | 2.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | Freon 11 = 2.2 |
| O162A2 | | 6/11/2014 | 42 | 39 | 1.9 | 0.71 | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | Freon 11 = 1.8 |
| | | | | | | | | | | | | | | |
| OB4-1 | | 12/28/1992 | ND (< 10) | 430 | 1,300 | 76 | ND (< 50) | ND (< 10) | ND (< 10) | 940 | ND (< 10) | 890 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| OB4-2 | | 12/28/1992 | ND (< 25) | 150 | 4,400 | 400 | ND (< 120) | ND (< 25) | ND (< 25) | 3,400 | ND (< 25) | 1,100 | ND (< 25) | Freon 11 = 55 |
| OB4-2 | Dup | 12/28/1992 | ND (< 25) | 150 | 5,300 | 400 | ND (< 120) | ND (< 25) | ND (< 25) | 4,200 | ND (< 25) | 1,100 | ND (< 25) | Freon 11 = 55 |
| | | | | | | | | | | | | | | |
| OB5-1 | | 3/23/1993 | 10 | 1,100 | 71 | ND (< 5) | ND (< 25) | ND (< 5) | ND (< 5) | 110 | ND (< 5) | 120 | ND (< 5) | |
| | | | | | | | | | | | | | | |
| OB5-2 | | 6/27/2007 | 1.8 | 19 | 3.9 | 4.6 | 14 | ND (< 0.50) | 3.0 | 6.5 | ND (< 0.50) | 4.8 | ND (< 0.50) | |
| OB5-2 | | 6/11/2008 | 2.2 | 19 | 4.5 | 4.3 | 23 | ND (< 0.50) | 3.0 | 7.2 | ND (< 0.50) | 4.6 | 0.53 | |
| OB5-2 | | 6/9/2009 | 1.4 | 15 | 3.7 | 4.6 | 25 * | ND (< 0.50) | 2.8 | 6.2 | ND (< 0.50) | 2.9 | 0.52 | |
| | | | | | | | | | | | | | | |
| OB5-3 | | 3/23/1993 | ND (< 5) | 61 | 180 | 130 | ND (< 25) | ND (< 5) | ND (< 5) | 1,200 | ND (< 5) | 21 | ND (< 5) | Acetone = 4,100 ; Ethylbenzene = 10 ; Toluene = 20 ; Xylenes = 38 |
| OB5-3 | | 6/27/2007 | ND (< 0.50) | 11 | 1.7 | 3.1 | 6.1 | ND (< 0.50) | ND (< 0.50) | 69 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| OB5-3 | | 6/11/2008 | ND (< 0.50) | 2.6 | 2.2 | 2.1 | 4.1 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| OB5-3 | | 6/9/2009 | ND (< 0.50) | 0.99 | ND (< 0.50) | 1.0 | 1.2 * | ND (< 0.50) | ND (< 0.50) | 9.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| OB5-4 | | 3/23/1993 | ND (< 0.5) | 3.6 | 24 | 14 | - | ND (< 0.5) | - | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 5.5 ; Freon 11 = 12 ; Toluene = 0.7 ; Xylenes = 0.9 |
| OB5-4 | | 6/27/2007 | ND (< 0.50) | 6.7 | 2.5 | 2.7 | 6.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | Freon 11 = 3.1 |
| OB5-4 | | 6/11/2008 | ND (< 0.50) | 23 | 9.5 | 4.8 | 15 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | CHLFM = 1.4 ; Freon 11 = 10 |
| OB5-4 | | 6/9/2009 | ND (< 0.50) | 10 | 4.5 | 4.4 | 10 * | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.2 ; Freon 11 = 4.8 |
| | | | | | | | | | | | | | | |
| OB5-5 | | 6/27/2007 | ND (< 5.0) | 980 | 68 | 20 | 38 | ND (< 5.0) | ND (< 5.0) | 45 | ND (< 5.0) | 130 | ND (< 5.0) | |
| OB5-5 | | 6/11/2008 | ND (< 10) | 1,300 | 88 | 31 | 46 | ND (< 10) | ND (< 10) | 59 | ND (< 10) | 210 | ND (< 10) | |
| OB5-5 | | 6/10/2009 | ND (< 10) | 1,000 | 78 | 30 | 37 * | ND (< 10) | ND (< 10) | 45 | ND (< 10) | 170 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| OB6-1 | | 12/28/1992 | ND (< 50) | 17,000 | ND (< 50) | ND (< 50) | ND (< 250) | ND (< 50) | ND (< 50) | 240 | 110 | ND (< 50) | ND (< 50) | |
| | | | | | | | | | | | | | | |
| OB6-2 | | 2/3/1993 | ND (< 50) | 15,000 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 70 | ND (< 50) | ND (< 50) | ND (< 50) | |
| | | | | | | | | | | | | | | |
| OB7-1 | | 12/28/1992 | 8 | 1,000 | 240 | 18 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 170 | ND (< 2.5) | 170 | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| OB7-2 | | 12/28/1992 | ND (< 5) | 1,200 | 440 | 17 | ND (< 25) | ND (< 5) | ND (< 5) | 190 | ND (< 5) | 380 | ND (< 5) | |
| | | | | | | | | | | | | | | |
| OB7-3 | | 1/8/1991 | 2 | 240 | 120 | 15 | 10 | 3 | 0.5 | - | - | 110 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| OB7-3 | | 2/5/1991 | 0.2 | 230 | 96 | 13 | 20 | 0.3 | 0.5 | - | - | 100 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| | | | | | | | | | | | | | | |
| OB8-1 | | 12/28/1992 | ND (< 2.5) | 650 | 78 | 18 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 34 | ND (< 2.5) | 18 | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| OB8-2 | | 12/28/1992 | ND (< 5) | 2,100 | 1,000 | 78 | ND (< 25) | ND (< 5) | ND (< 5) | 620 | ND (< 5) | 440 | ND (< 5) | |
| | | | | | | | | | | | | | | |
| OB9-2 | | 12/29/1992 | ND (< 5) | 170 | 1,800 | 150 | - | ND (< 5) | ND (< 5) | 1,600 | 9 | 76 | ND (< 5) | |
| | | | | | | | | | | | | | | |
| OB10-1 | | 12/28/1992 | ND (< 10) | 1,600 | 910 | 74 | ND (< 50) | ND (< 10) | ND (< 10) | 700 | ND (< 10) | 140 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| OB10-2 | | 12/28/1992 | ND (< 5) | 2,000 | 790 | 56 | ND (< 25) | ND (< 5) | ND (< 5) | 530 | ND (< 5) | 380 | ND (< 5) | |
| | | | | | | | | | | | | | | |
| OB11-1 | | 12/29/1992 | 150 | 220 | 18 | 5.4 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-1 | | 9/27/1993 | 60 | 140 | 16 | 4.9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.79 |
| OB11-1 | | 12/9/1997 | 6.3 | 55 | 6.9 | 1.5 | 4.3 | ND (< 1) | ND (< 1) | 7.2 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 100 |
| OB11-1 | | 6/2/1998 | ND (< 5) | 130 | 9.8 | ND (< 5) | 5.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 114 |
| OB11-1 | | 12/8/1998 | ND (< 5) | 105 | 7.1 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 107 |
| OB11-1 | | 6/8/1999 | ND (< 5.00) | 147 | 11.6 | ND (< 5.00) | 5.96 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| OB11-1 | | 12/14/1999 | 3.8 | 32 | 6.18 | 1.54 | 2.47 | ND (< 0.835) | ND (< 0.835) | 10.8 | ND (< 0.835) | ND (< 0.835) | ND (< 0.835) | |
| OB11-1 | | 6/8/2000 | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | BDCHLMA = 0.64 ; CHLFM = 16 |
| | | | | | | | | | | | | | | |
| OB11-2 | | 12/29/1992 | 530,000 | - | - | - | ND (< 12,000) | - | - | - | - | - | - | |
| OB11-2 | | 12/29/1992 | 56,000 | ND (< 500) | 22,000 | ND (< 500) | ND (< 2,500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | |
| OB11-2 | Dup | 12/29/1992 | - | ND (< 2,500) | 170,000 | ND (< 2,500) | - | ND (< 2,500) | ND (< 2,500) | ND (< 2,500) | ND (< 2,500) | ND (< 2,500) | ND (< 2,500) | |
| OB11-2 | | 2/2/1993 | 36,000 | 200 | 12,000 | ND (< 50) | ND (< 1,000) | ND (< 50) | - | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 100) | Acetone = 2,400 |
| OB11-2 | | 2/2/1993 | 39,000 | 190 | 13,000 | - | - | - | - | - | - | - | - | |
| OB11-2 | | 2/2/1993 | 56,000 | ND (< 500) | 22,000 | ND (< 500) | ND (< 2,500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | ND (< 500) | |
| OB11-2 | Dup | 2/2/1993 | - | - | - | 14 | 5.9 | ND (< 5) | - | 0.7 | 5.9 | ND (< 5) | ND (< 10) | 1,1,2-TCA = 14 |
| OB11-2 | | 12/4/1997 | 11,000 | 350 | 1,400 | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | CBMA = 91 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OB11-2 | | 12/9/1998 | 7,000 | 275 | 1,670 | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | CBMA = 99.7 |
| OB11-2 | | 10/22/2007 | 120,000 | ND (< 1,000) | 8,100 | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | ND (< 1,000) | |
| OB11-2 | | 5/1/2008 | ND (< 50) | ND (< 50) | 7,500 | ND (< 50) | 84 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CT = 320 |
| OB11-2 | | 11/5/2008 | 1,400 | ND (< 20) | 640 | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | ND (< 20) | CT = 26 |
| OB11-2 | | 4/30/2009 | 46 | 7.6 | 87 | ND (< 1.0) | ND (< 1.0) | 7.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | CT = 5.0 |
| OB11-2 | | 10/22/2009 | 190 | 41 | 57 | ND (< 1.0) | 4.5 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | CT = 1.0 |
| OB11-2 | | 6/8/2010 | 360 | 61 | 60 | ND (< 5.0) | 5.6 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| OB11-2 | | 11/4/2010 | 180 | 66 | 34 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 7.9 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| OB11-2 | | 6/14/2011 | 270 | 69 | 39 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 26 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| OB11-2 | | 6/12/2012 | 630 | 74 | 110 | ND (< 5.0) | 6.7 | ND (< 5.0) | ND (< 5.0) | 38 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| OB11-2 | | 4/4/2013 | 670 | 68 | 100 | 1.1 | 8.9 | ND (< 0.50) | ND (< 0.50) | 23 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.6 , CT = 0.75 , 1,1,1,2-TCA = 2.6 |
| OB11-2 | | 6/17/2013 | 390 | 6.0 | 110 | 5.1 | 7.5 | ND (< 5.0) | ND (< 5.0) | 590 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | Carbon = 120 |
| OB11-2 | | 8/23/2013 | 320 | ND (< 5.0) | 68 | 13 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 54 | 7.8 | ND (< 5.0) | 95 | |
| OB11-2 | | 11/22/2013 | 150 | 2.3 | 28 | 12 | 1.9 | ND (< 1.0) | ND (< 1.0) | 7.3 | 4.9 | ND (< 1.0) | 12 | |
| OB11-2 | | 5/22/2014 | 1,100 | 3.5 | 99 | 8.6 | 7.0 | ND (< 1.0) | ND (< 1.0) | 69 | 2.0 | ND (< 1.0) | 52 | 1,1,1,2-TCA = 1.8 |
| OB11-2 | | 6/11/2014 | 53 | 6.0 | 18 | 4.5 | 0.75 | ND (< 0.50) | ND (< 0.50) | 52 | 1.2 | ND (< 0.50) | 20 | |
| | | | | | | | | | | | | | | |
| OB11-3 | | 12/29/1992 | 13,000 | 300 | 120 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | |
| OB11-3 | | 9/28/1993 | 4,600 | 170 | 47 | ND (< 12) | ND (< 50) | ND (< 12) | ND (< 12) | 22 | ND (< 12) | ND (< 12) | ND (< 12) | |
| OB11-3 | | 12/4/1997 | 68 | 51 | 4.3 | 1.4 | - | ND (< 1) | ND (< 1) | 2.3 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 97 |
| OB11-3 | | 12/8/1998 | 648 | 126 | ND (< 25) | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 106 |
| OB11-3 | | 10/16/2012 | 57 | 29 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.77 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| OB11-3 | Dup | 10/16/2012 | 89 | 30 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.85 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| OB11-4 | | 12/29/1992 | 140 | 380 | 47 | 4.2 | ND (< 5) | ND (< 1) | ND (< 1) | 6 | ND (< 1) | 3 | ND (< 1) | |
| OB11-4 | | 9/28/1993 | 280 | 300 | 78 | 5.1 | ND (< 5) | ND (< 1) | ND (< 1) | 6.8 | ND (< 1) | ND (< 1) | ND (< 1) | CHLBZ = 10 |
| OB11-4 | | 12/3/1997 | 0.86 | 3.1 | 0.81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.72 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 |
| OB11-4 | | 12/9/1998 | 3.02 | 5.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.634 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| OB11-4 | Dup | 12/9/1998 | 2.98 | 5.81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.63 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| OB11-4 | | 10/16/2012 | 32 | 120 | 16 | 5.8 | 11 | ND (< 0.50) | ND (< 0.50) | 31 | ND (< 0.50) | 2.6 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| OB11-5 | | 2/1/1993 | 1,300 | 320 | 49 | ND (< 5) | ND (< 25) | ND (< 5) | ND (< 5) | 5 | ND (< 5) | ND (< 5) | ND (< 5) | |
| OB11-5 | | 9/28/1993 | 1,100 | 200 | 34 | 5.1 | ND (< 25) | ND (< 5) | ND (< 5) | 6.6 | ND (< 5) | ND (< 5) | ND (< 5) | |
| OB11-5 | | 12/9/1997 | 53 | 74 | 15 | 4.8 | - | ND (< 2.5) | ND (< 2.5) | 73 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 101 |
| OB11-5 | | 12/8/1998 | 66.5 | 179 | 27.7 | 5.14 | - | ND (< 5) | ND (< 5) | 196 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 113 |
| OB11-5 | | 10/16/2012 | 290 | 94 | 10 | 4.8 | 9.3 | ND (< 0.50) | ND (< 0.50) | 17 | ND (< 0.50) | 1.4 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| OB11-6 | | 2/3/1993 | ND (< 0.5) | 3.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Toluene = 0.5 |
| OB11-6 | | 9/27/1993 | 2.4 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | Dup | 9/27/1993 | 2.1 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 3/3/1994 | 6.6 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 6/8/1994 | 6.9 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 9/8/1994 | 7.9 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 12/6/1994 | 6.2 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| OB11-6 | Dup | 12/6/1994 | 6.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| OB11-6 | | 3/7/1995 | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 6/5/1995 | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 9/5/1995 | 3.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| OB11-6 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | Dup | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| OB11-6 | | 6/5/1996 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| OB11-6 | | 9/11/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 108 |
| OB11-6 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| OB11-6 | | 3/4/1997 | 0.53 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| OB11-6 | | 6/3/1997 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 |
| OB11-6 | Dup | 6/3/1997 | 0.96 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 ; MC = 1.2 |
| OB11-6 | | 9/9/1997 | 0.61 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| OB11-6 | | 12/5/1997 | 0.58 | 0.87 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 90 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OB11-6 | | 6/2/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 118 |
| OB11-6 | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| OB11-6 | | 6/8/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| OB11-6 | | 12/10/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| OB11-6 | | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| OB12-1 | | 4/30/1996 | ND (< 0.5) | 5.9 | 2 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 6.6 |
| OB12-1 | | 9/12/1996 | ND (< 0.5) | 9 | 2.3 | 0.7 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 ; CHLFM = 0.65 |
| OB12-1 | | 6/4/1997 | ND (< 0.5) | 8.2 | 2.1 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| | | | | | | | | | | | | | | |
| OB12-2 | | 4/30/1996 | ND (< 0.5) | 2.8 | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 1.1 ; CHLFM = 22 |
| OB12-2 | | 9/12/1996 | ND (< 0.5) | 4.4 | 1.6 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 ; CHLFM = 6.8 |
| OB12-2 | | 6/4/1997 | ND (< 0.5) | 7.4 | ND (< 0.5) | 0.58 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 104 |
| | | | | | | | | | | | | | | |
| OB13-1 | | 9/12/1996 | ND (< 2.5) | 230 | 45 | 2.6 | - | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | BDCHLMA = 4.9 ; CBMA = 107 ; CHLFM = 31 ; MC = 2.5 |
| OB13-1 | | 6/5/1997 | ND (< 0.5) | 64 | 17 | 1.7 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.1 ; CBMA = 95 ; CHLFM = 14 |
| | | | | | | | | | | | | | | |
| OB14-1 | | 9/12/1996 | ND (< 0.5) | 62 | 11 | 8.2 | - | ND (< 0.5) | ND (< 0.5) | 3.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 2.1 ; CBMA = 105 ; CHLFM = 8.4 |
| OB14-1 | | 6/6/1997 | ND (< 0.5) | 9 | 1.2 | 0.84 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 ; CHLFM = 0.75 |
| | | | | | | | | | | | | | | |
| OB15-1 | | 10/16/1995 | 140 | 26 | 3.8 | ND (< 2.5) | 2.9 | ND (< 2.5) | ND (< 2.5) | 49 | 2.9 | ND (< 2.5) | ND (< 2.5) | CHLFM = 12 |
| OB15-1 | | 12/6/1995 | 150 | 23 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 49 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 6 |
| OB15-1 | | 6/6/1997 | 300 | 11 | 12 | 1 | - | ND (< 0.5) | ND (< 0.5) | 6.3 | 0.63 | ND (< 0.5) | ND (< 0.5) | CBMA = 85 |
| | | | | | | | | | | | | | | |
| OB16-1 | | 10/16/1995 | ND (< 2.5) | 130 | 3.8 | 2.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 7.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | BDCHLMA = 7 ; CHLFM = 20 |
| OB16-1 | | 12/6/1995 | ND (< 5) | 100 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 5.4 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 14 |
| OB16-1 | | 6/6/1997 | ND (< 0.5) | 9.6 | ND (< 0.5) | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 1.3 |
| | | | | | | | | | | | | | | |
| OEU manhole | | 11/21/1990 | 0.2 | 0.8 | 1.1 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 9.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.6 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| OEU manhole | | 11/13/1991 | 230 | 720 | 78 | 13 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 91 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| OEU manhole | | 1/29/1992 | 190 | 640 | 70 | 12 | ND (< 25) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| OEU manhole | | 10/14/1992 | 43 | 170 | 19 | 3.2 | ND (< 5) | ND (< 1) | ND (< 1) | 24 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.2 |
| OEU manhole | | 12/28/1992 | 23 | 73 | 8.4 | ND (< 5) | ND (< 5) | ND (< 5) | - | 12 | ND (< 5) | ND (< 5) | ND (< 10) | |
| OEU manhole | | 1/25/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| OEU manhole | | 9/8/1994 | 160 | 530 | 31 | ND (< 25) | ND (< 25) | ND (< 25) | - | 33 | ND (< 25) | - | ND (< 50) | |
| OEU manhole | | 9/14/1995 | 55 | 180 | 38 | 6.8 | - | ND (< 5) | - | - | ND (< 5) | - | ND (< 10) | |
| OEU manhole | | 9/12/1996 | 220 | 400 | 30 | 5.7 | 12 | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| OEU manhole | | 9/12/1997 | 110 | 190 | 20 | ND (< 5) | 33 | ND (< 5) | - | 33 | ND (< 5) | ND (< 5) | ND (< 10) | |
| OEU manhole | | 6/3/1998 | 98 | 180 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | 26 | ND (< 25) | ND (< 25) | ND (< 50) | |
| OEU manhole | | 6/9/1999 | 102 | 181 | 10.7 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | 22.0 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| OEU manhole | | 6/20/2000 | 92 | 120 | 8.8 | 2.3 | 3.4 | ND (< 0.50) | ND (< 0.50) | 17 | 0.92 | 1.9 | ND (< 0.50) | CHLFM = 0.93 |
| OEU manhole | | 9/24/2001 | 130 | 170 | 9.7 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 21 | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| OEU manhole | | 6/30/2003 | 34 | 68 | 4.2 | 1.1 | 1.8 | ND (< 0.50) | ND (< 0.50) | 8.2 | 0.62 | 1.7 | ND (< 0.50) | CHLFM = 0.68 |
| OEU manhole | | 9/13/2005 | 52 | 89 | 4.6 | 1.2 | 2.4 | ND (< 0.50) | ND (< 0.50) | 12 | 0.74 | 1.0 | ND (< 0.50) | CHLFM = 0.55 |
| OEU manhole | | 9/13/2007 | 36 | 79 | 3.3 | 1.0 | 1.6 | ND (< 0.50) | ND (< 0.50) | 9.1 | 0.55 | 0.97 | ND (< 0.50) | |
| OEU manhole | | 6/15/2009 | 23 | 69 | 3.0 | 1.2 | 1.7 | ND (< 0.50) | ND (< 0.50) | 8.0 | ND (< 0.50) | 0.65 | ND (< 0.50) | |
| OEU manhole | Dup | 6/15/2009 | 17 | 68 | 3.2 | 1.2 | 1.6 | ND (< 0.50) | ND (< 0.50) | 7.6 | ND (< 0.50) | 0.65 | ND (< 0.50) | |
| OEU manhole | | 7/11/2011 | 23 | 61 | 2.2 | 1.6 | 1.8 | ND (< 0.50) | ND (< 0.50) | 7.8 | 0.52 | ND (< 0.50) | ND (< 0.50) | |
| OEU manhole | | 6/19/2013 | 40 | 100 | 5.9 | 2.8 | 3.3 | ND (< 0.50) | ND (< 0.50) | 14 | 0.78 | 0.72 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P1-1 | | 6/10/1994 | ND (< 5) | 870 | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| P1-1 | | 9/6/1994 | ND (< 0.5) | 880 | 18 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 16 | ND (< 0.5) | 2.3 | ND (< 0.5) | CHLFM = 1.5 |
| P1-1 | | 12/5/1994 | ND (< 5) | 920 | 13 | ND (< 5) | ND (< 5) | ND (< 5) | - | 13 | ND (< 5) | ND (< 5) | ND (< 10) | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P1-1 | | 3/2/1995 | ND (< 5) | 720 | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 7.2 | ND (< 5) | ND (< 5) | ND (< 5) | |
| | | | | | | | | | | | | | | |
| P1-3 | | 6/11/2009 | 6.7 | 5,100 | 13 | 0.51 | 1.1 | 0.99 | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1,1,2-TCA = 2.4 ; CHLFM = 2.9 ; CT = 0.60 |
| | | | | | | | | | | | | | | |
| P1-7 | | 6/11/2009 | 0.67 | 13,000 | 4.4 | 11 | 8.7 | 0.54 | ND (< 0.50) | 49 | 0.68 | 0.85 | ND (< 0.50) | 1,1,2-TCA = 1.0 ; CHLFM = 1.2 |
| | | | | | | | | | | | | | | |
| P1-A1 | | 1/27/2007 | ND (< 0.5) | 5.4 | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| P1-A1 | | 6/28/2007 | ND (< 0.50) | 5.3 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/10/2008 | ND (< 0.50) | 5.4 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 12/11/2008 | ND (< 0.50) | 3.7 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/9/2009 | ND (< 0.50) | 4.0 | 0.54 | 1.1 | ND (< 0.50 ,*) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/8/2010 | ND (< 0.50) | 7.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/14/2011 | ND (< 0.50) | 6.5 | ND (< 0.50) | 0.85 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | Dup | 6/14/2011 | ND (< 0.50) | 6.2 | ND (< 0.50) | 0.91 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/12/2012 | ND (< 0.50) | 5.7 | ND (< 0.50) | 0.87 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/19/2013 | ND (< 0.50) | 4.2 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P1-A1 | | 6/11/2014 | ND (< 0.50) | 3.9 | ND (< 0.50) | 0.86 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P1-A2 | | 1/27/2007 | ND (< 0.5) | 17 | 95 | 17 | 59 | ND (< 0.5) | ND (< 0.5) | 86 | 0.76 | 8.6 | ND (< 0.5) | Freon 11 = 1.4 |
| P1-A2 | | 6/28/2007 | ND (< 1.0) | 19 | 110 | 17 | 62 | ND (< 1.0) | ND (< 1.0) | 90 | 1.0 | 12 | ND (< 1.0) | |
| P1-A2 | | 6/10/2008 | ND (< 1.0) | 39 | 110 | 18 | 59 | ND (< 1.0) | ND (< 1.0) | 94 | 1.1 | 15 | ND (< 1.0) | |
| P1-A2 | Dup | 6/10/2008 | ND (< 1.0) | 37 | 99 | 17 | 53 | ND (< 1.0) | ND (< 1.0) | 84 | ND (< 1.0) | 13 | ND (< 1.0) | |
| P1-A2 | | 12/11/2008 | ND (< 1.0) | 47 | 130 | 19 | 62 | ND (< 1.0) | ND (< 1.0) | 92 | 1.1 | 20 | ND (< 1.0) | |
| P1-A2 | | 6/9/2009 | ND (< 0.50) | 23 | 46 | 6.3 | 19 | ND (< 0.50) | ND (< 0.50) | 31 | ND (< 0.50) | 3.5 | ND (< 0.50) | |
| P1-A2 | | 6/8/2010 | ND (< 0.50) | 41 | 53 | 9.9 | 26 | ND (< 0.50) | ND (< 0.50) | 41 | ND (< 0.50) | 6.0 | ND (< 0.50) | |
| P1-A2 | | 6/14/2011 | ND (< 0.50) | 72 | 84 | 16 | 37 | ND (< 0.50) | ND (< 0.50) | 65 | 1.1 | 13 | ND (< 0.50) | |
| P1-A2 | | 6/12/2012 | ND (< 0.50) | 7.0 | 1.7 | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | 3.6 | ND (< 0.50) | 1.3 | ND (< 0.50) | |
| P1-A2 | | 6/19/2013 | ND (< 0.50) | 12 | 2.3 | 0.54 | 1.8 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | 1.7 | ND (< 0.50) | |
| P1-A2 | | 6/11/2014 | ND (< 0.50) | 17 | 4.2 | 1.6 | 2.3 | ND (< 0.50) | ND (< 0.50) | 5.9 | ND (< 0.50) | 2.7 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P2-A2 | | 1/27/2007 | ND (< 0.5) | 8 | 65 | 14 | 38 | ND (< 0.5) | ND (< 0.5) | 56 | ND (< 0.5) | 4.4 | ND (< 0.5) | |
| P2-A2 | | 6/28/2007 | ND (< 0.50) | 6.3 | 83 | 14 | 42 | ND (< 0.50) | ND (< 0.50) | 66 | 0.63 | 5.6 | ND (< 0.50) | |
| P2-A2 | | 6/27/2008 | ND (< 2.0) | 110 | 110 | 15 | 48 | ND (< 2.0) | ND (< 2.0) | 76 | ND (< 2.0) | 47 | ND (< 2.0) | |
| P2-A2 | | 12/11/2008 | ND (< 0.50) | 20 | 85 | 15 | 47 | ND (< 0.50) | ND (< 0.50) | 70 | 0.92 | 15 | ND (< 0.50) | Freon 11 = 1.0 |
| P2-A2 | Dup | 12/11/2008 | ND (< 1.0) | 20 | 81 | 14 | 40 | ND (< 1.0) | ND (< 1.0) | 62 | ND (< 1.0) | 13 | ND (< 1.0) | |
| P2-A2 | | 6/9/2009 | ND (< 0.50) | 9.1 | 46 | 9.8 | 17 | ND (< 0.50) | ND (< 0.50) | 29 | ND (< 0.50) | 1.1 | ND (< 0.50) | |
| P2-A2 | | 6/8/2010 | ND (< 0.50) | 6.2 | 14 | 5.8 | 7.1 | ND (< 0.50) | ND (< 0.50) | 16 | ND (< 0.50) | 0.53 | ND (< 0.50) | |
| P2-A2 | | 6/14/2011 | ND (< 0.50) | 5.7 | 6.8 | 4.6 | 3.4 | ND (< 0.50) | ND (< 0.50) | 11 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P2-A2 | | 6/12/2012 | ND (< 0.50) | 3.8 | 3.1 | 4.3 | 1.8 | ND (< 0.50) | ND (< 0.50) | 7.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P2-A2 | | 6/19/2013 | ND (< 0.50) | 3.0 | 1.3 | 3.4 | 1.1 | ND (< 0.50) | ND (< 0.50) | 3.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| P2-A2 | | 6/11/2014 | ND (< 0.50) | 4.1 | 2.2 | 5.4 | 2.1 | ND (< 0.50) | ND (< 0.50) | 4.8 | ND (< 0.50) | 0.77 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P3 | | 3/5/2012 | ND (< 0.50) | 55 | ND (< 0.50) | 3.0 | 3.6 | ND (< 0.50) | ND (< 0.50) | 35 | 2.7 | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P3-1 | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P3-A2 | | 2/24/2007 | ND (< 1) | 99 | 130 | 18 | 55 | ND (< 1) | ND (< 1) | 91 | ND (< 1) | 30 | ND (< 1) | |
| P3-A2 | | 6/28/2007 | ND (< 1.0) | 110 | 120 | 14 | 50 | ND (< 1.0) | ND (< 1.0) | 86 | 1.0 | 36 | ND (< 1.0) | |
| P3-A2 | Dup | 6/28/2007 | ND (< 1.0) | 110 | 130 | 13 | 47 | ND (< 1.0) | ND (< 1.0) | 78 | 1.0 | 35 | ND (< 1.0) | |
| P3-A2 | | 6/27/2008 | ND (< 2.0) | 220 | 92 | 12 | 35 | ND (< 2.0) | ND (< 2.0) | 66 | ND (< 2.0) | 94 | ND (< 2.0) | |
| P3-A2 | | 12/11/2008 | ND (< 1.0) | 130 | 110 | 16 | 50 | ND (< 1.0) | ND (< 1.0) | 82 | 1.1 | 54 | ND (< 1.0) | |
| P3-A2 | | 6/9/2009 | ND (< 1.0) | 100 | 87 | 14 | 37 * | ND (< 1.0) | ND (< 1.0) | 57 | ND (< 1.0) | 18 | ND (< 1.0) | |
| P3-A2 | | 6/8/2010 | ND (< 1.0) | 150 | 88 | 14 | 42 | ND (< 1.0) | ND (< 1.0) | 59 | ND (< 1.0) | 19 | ND (< 1.0) | |
| P3-A2 | | 6/14/2011 | ND (< 1.0) | 120 | 75 | 14 | 29 | ND (< 1.0) | ND (< 1.0) | 54 | 1.0 | 15 | ND (< 1.0) | |
| P3-A2 | | 6/12/2012 | ND (< 1.0) | 200 | 55 | 14 | 26 | ND (< 1.0) | ND (< 1.0) | 50 | ND (< 1.0) | 72 | ND (< 1.0) | |
| P3-A2 | | 6/19/2013 | ND (< 1.0) | 160 | 35 | 11 | 18 | ND (< 1.0) | ND (< 1.0) | 33 | ND (< 1.0) | 50 | ND (< 1.0) | |
| P3-A2 | | 6/11/2014 | ND (< 1.0) | 150 | 29 | 11 | 16 | ND (< 1.0) | ND (< 1.0) | 32 | ND (< 1.0) | 62 | ND (< 1.0) | |
| | | | | | | | | | | | | | | |
| P4 | | 3/5/2012 | ND (< 0.50) | 160 | ND (< 0.50) | ND (< 0.50) | 0.65 | ND (< 0.50) | ND (< 0.50) | 16 | 1.1 | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| P4-A2 | | 2/24/2007 | ND (< 2) | 310 | 130 | 13 | 37 | ND (< 2) | ND (< 2) | 82 | ND (< 2) | 72 | ND (< 2) | |
| P4-A2 | | 6/28/2007 | ND (< 2.0) | 280 | 110 | 12 | 37 | ND (< 2.0) | ND (< 2.0) | 69 | ND (< 2.0) | 91 | ND (< 2.0) | |
| P4-A2 | | 6/10/2008 | ND (< 2.0) | 160 | 120 | 16 | 52 | ND (< 2.0) | ND (< 2.0) | 86 | ND (< 2.0) | 49 | ND (< 2.0) | |
| P4-A2 | | 12/11/2008 | ND (< 2.0) | 240 | 89 | 13 | 39 | ND (< 2.0) | ND (< 2.0) | 67 | ND (< 2.0) | 99 | ND (< 2.0) | |
| P4-A2 | | 6/9/2009 | ND (< 2.5) | 180 | 21 | 6.7 | 7.8 | ND (< 2.5) | ND (< 2.5) | 26 | ND (< 2.5) | 6.5 | ND (< 2.5) | |
| P4-A2 | | 6/8/2010 | ND (< 2.5) | 160 | 14 | 5.5 | 6.3 | ND (< 2.5) | ND (< 2.5) | 24 | ND (< 2.5) | 5.6 | ND (< 2.5) | |
| P4-A2 | | 6/14/2011 | ND (< 0.50) | 48 | 5.0 | 2.4 | 3.0 | ND (< 0.50) | ND (< 0.50) | 9.4 | ND (< 0.50) | 5.3 | ND (< 0.50) | |
| P4-A2 | | 6/12/2012 | ND (< 0.50) | 200 | 42 | 15 | 21 | ND (< 0.50) | ND (< 0.50) | 44 | 0.57 | 87 | ND (< 0.50) | |
| P4-A2 | | 6/19/2013 | ND (< 0.50) | 39 | 4.1 | 2.4 | 2.4 | ND (< 0.50) | ND (< 0.50) | 7.5 | ND (< 0.50) | 6.7 | ND (< 0.50) | |
| P4-A2 | | 6/11/2014 | ND (< 0.50) | 29 | 1.3 | 1.1 | 1.0 | ND (< 0.50) | ND (< 0.50) | 4.2 | ND (< 0.50) | 1.2 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| P5-A2 | | 2/24/2007 | ND (< 5) | 360 | 130 | 10 | 38 | ND (< 5) | ND (< 5) | 69 | ND (< 5) | 110 | ND (< 5) | |
| P5-A2 | | 6/28/2007 | ND (< 2.0) | 300 | 100 | 10 | 32 | ND (< 2.0) | ND (< 2.0) | 61 | ND (< 2.0) | 91 | ND (< 2.0) | |
| P5-A2 | | 6/10/2008 | ND (< 2.0) | 270 | 86 | 12 | 31 | ND (< 2.0) | ND (< 2.0) | 61 | ND (< 2.0) | 85 | ND (< 2.0) | |
| P5-A2 | | 12/12/2008 | ND (< 2.0) | 290 | 82 | 12 | 31 | ND (< 2.0) | ND (< 2.0) | 55 | ND (< 2.0) | 88 | ND (< 2.0) | |
| P5-A2 | | 6/9/2009 | ND (< 2.5) | 230 | 77 | 13 | 32 | ND (< 2.5) | ND (< 2.5) | 50 | ND (< 2.5) | 80 | ND (< 2.5) | BDCHLMA = 2.6 |
| P5-A2 | | 6/8/2010 | ND (< 2.5) | 210 | 55 | 12 | 26 | ND (< 2.5) | ND (< 2.5) | 36 | ND (< 2.5) | 32 | ND (< 2.5) | |
| P5-A2 | | 6/14/2011 | ND (< 2.5) | 150 | 42 | 11 | 17 | ND (< 2.5) | ND (< 2.5) | 31 | ND (< 2.5) | 16 | ND (< 2.5) | |
| P5-A2 | | 6/12/2012 | ND (< 2.5) | 150 | 26 | 11 | 14 | ND (< 2.5) | ND (< 2.5) | 32 | ND (< 2.5) | 56 | ND (< 2.5) | |
| P5-A2 | | 6/19/2013 | ND (< 2.5) | 130 | 22 | 10 | 14 | ND (< 2.5) | ND (< 2.5) | 25 | ND (< 2.5) | 53 | ND (< 2.5) | |
| P5-A2 | | 6/11/2014 | ND (< 0.50) | 110 | 19 | 10 | 12 | ND (< 0.50) | ND (< 0.50) | 26 | 0.56 | 46 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| PZ-2 | | 1/7/1991 | 0.2 | 0.8 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| PZ-2 | | 2/5/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.3 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| PZ-2 | | 7/25/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| RW-1 | | 6/7/1995 | 4,200 | 180 | 11 | 4.6 | - | ND (< 0.5) | ND (< 0.5) | 23 | 4.9 | ND (< 0.5) | ND (< 0.5) | CHLBZ = 2.9 ; CHLFM = 1.3 |
| RW-1 | | 9/8/1995 | 3,500 | 230 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | MC = 130 |
| RW-1 | | 12/11/1995 | 1,100 | 97 | 6 | ND (< 5) | - | ND (< 5) | - | 57 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-1 | | 3/7/1996 | 1,300 | 260 | 26 | ND (< 10) | 15 | ND (< 10) | ND (< 10) | 110 | 21 | ND (< 10) | ND (< 10) | |
| RW-1 | | 6/11/1996 | 1,100 | 160 | 26 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 70 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 100 |
| RW-1 | | 9/13/1996 | 8,800 | 210 | 34 | ND (< 12) | 26 | ND (< 12) | ND (< 12) | 51 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 89 |
| RW-1 | | 12/13/1996 | 680 | 120 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| RW-1 | | 3/7/1997 | 400 | 100 | 16 | ND (< 5) | 9.4 | ND (< 5) | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 |
| RW-1 | | 6/9/1997 | 390 | 110 | 21 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 90 |
| RW-1 | | 9/12/1997 | 530 | 110 | 29 | ND (< 5) | 9.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 98 |
| RW-1 | | 12/5/1997 | 420 | 73 | 16 | ND (< 5) | 8 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 77 |
| RW-1 | | 6/2/1998 | 410 | 87 | 13 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 105 |
| RW-1 | Dup | 6/2/1998 | 440 | 74 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 104 |
| RW-1 | | 12/9/1998 | 293 | 117 | 29.5 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 89 |
| RW-1 | | 6/10/1999 | 173 | 91.8 | 10.0 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| RW-1 | | 12/15/1999 | 400 | 100 | 9.9 | ND (< 5) | 5.6 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | MC = 6.9 |
| RW-1 | | 6/9/2000 | 220 | 87 | 6.7 | ND (< 2.5) | 2.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| RW-1 | | 12/12/2000 | 280 | 80 | 8.1 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| RW-1 | Dup | 12/12/2000 | 220 | 70 | 7.2 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| RW-1 | | 6/21/2001 | 120 | 52 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW-1 | | 6/26/2003 | 75 | 96 | 8.8 | 1.9 | 8.9 | ND (< 0.50) | ND (< 0.50) | 8.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.95 |
| RW-1 | | 6/20/2005 | 130 | 73 | 2.7 | ND (< 1.0) | 2.5 | ND (< 1.0) | ND (< 1.0) | 2.8 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-1 | | 6/18/2007 | 130 | 47 | ND (< 1.0) | ND (< 1.0) | 1.2 | ND (< 1.0) | ND (< 1.0) | 4.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-1 | | 6/10/2009 | 150 | 27 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-1 | | 6/15/2011 | 170 | 30 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-1 | | 10/16/2012 | 1,300 | 58 | 0.85 | ND (< 0.50) | 0.78 | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-1 | | 4/4/2013 | 250 | 27 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.89 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-1 | | 6/19/2013 | 6.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 1.3 | ND (< 1.0) | ND (< 1.0) | 810 | ND (< 1.0) | ND (< 1.0) | 3.5 | Carbon = 16 |
| RW-1 | Dup | 6/19/2013 | 7.2 | 0.95 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | 820 | ND (< 0.50) | ND (< 0.50) | 2.9 | Carbon = 16 |
| RW-1 | | 8/23/2013 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | 150 | |
| RW-1 | | 11/22/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.76 | 7.9 | ND (< 0.50) | 1.2 | |
| RW-1 | | 5/22/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 29 | 2.7 | ND (< 0.50) | 28 | |
| | | | | | | | | | | | | | | |
| RW-2 | | 6/7/1995 | 2,800 | 160 | 6.6 | 4.5 | - | ND (< 0.5) | ND (< 0.5) | 16 | 7.6 | ND (< 0.5) | ND (< 0.5) | CHLBZ = 4.5 ; CHLFM = 1.3 |
| RW-2 | | 9/8/1995 | 2,900 | 250 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | MC = 120 |
| RW-2 | | 12/11/1995 | 1,800 | 150 | 11 | ND (< 5) | - | ND (< 5) | - | 48 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-2 | | 4/4/1996 | 1,400 | 250 | 33 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 110 | ND (< 25) | ND (< 25) | ND (< 25) | |
| RW-2 | | 6/11/1996 | 980 | 160 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 70 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 97 |
| RW-2 | | 9/13/1996 | 1,100 | 180 | 43 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 32 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 106 ; MC = 26 |
| RW-2 | | 12/13/1996 | 1,400 | 120 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | - | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 100) | |
| RW-2 | | 3/7/1997 | 1,600 | 140 | 38 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 104 |
| RW-2 | Dup | 3/7/1997 | 1,400 | 130 | 35 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 103 |
| RW-2 | | 6/9/1997 | 700 | 130 | 28 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 92 |
| RW-2 | | 9/12/1997 | 1,100 | 190 | 40 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 13 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 102 |
| RW-2 | | 12/5/1997 | 560 | 87 | 16 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 86 |
| RW-2 | | 6/2/1998 | 500 | 54 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 108 |
| RW-2 | | 12/9/1998 | 429 | 122 | 52.5 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 91 |
| RW-2 | | 6/10/1999 | 339 | 83.6 | 20.9 | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | |
| RW-2 | | 12/15/1999 | 450 | 120 | 27 | ND (< 5) | 8.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | MC = 7.8 |
| RW-2 | | 6/9/2000 | 320 | 78 | 25 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| RW-2 | | 12/12/2000 | 23 | 92 | 30 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 40) | ND (< 10) | |
| RW-2 | | 6/21/2001 | 280 | 85 | 46 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 40) | ND (< 10) | |
| RW-2 | | 6/26/2003 | 50 | 79 | 6.9 | 1.5 | 7.4 | ND (< 0.50) | ND (< 0.50) | 7.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.76 |
| RW-2 | | 6/20/2005 | 78 | 55 | 2.5 | 0.55 | 2.0 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-2 | | 6/18/2007 | 140 | 49 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 5.0 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| RW-2 | | 6/10/2009 | 76 | 23 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-2 | | 6/14/2011 | 130 | 27 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-2 | | 4/4/2013 | 120 | 21 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-2 | | 6/18/2013 | 4.4 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 280 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| RW-2 | | 11/22/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 87 | 3.6 | ND (< 0.50) | 82 | |
| RW-2 | | 5/22/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.7 | 1.6 | ND (< 0.50) | 7.5 | Toluene = 0.76 |
| | | | | | | | | | | | | | | |
| RW-3 | | 1/23/1996 | 61 | 150 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | - | 96 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-3 | Dup | 1/23/1996 | 63 | 150 | 13 | ND (< 5) | ND (< 5) | ND (< 5) | - | 98 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-3 | | 3/7/1996 | 52 | 180 | 19 | 3.9 | 14 | ND (< 2.5) | ND (< 2.5) | 79 | 3 | ND (< 2.5) | ND (< 2.5) | |
| RW-3 | Dup | 3/7/1996 | 49 | 170 | 20 | 4.3 | 14 | ND (< 2.5) | ND (< 2.5) | 78 | 3.1 | ND (< 2.5) | ND (< 2.5) | |
| RW-3 | | 6/11/1996 | ND (< 10) | 150 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 37 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 100 |
| RW-3 | | 9/12/1996 | 6.6 | 170 | 20 | 4.7 | 14 | ND (< 2.5) | ND (< 2.5) | 51 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 101 ; MC = 4.7 |
| RW-3 | | 12/13/1996 | ND (< 5) | 130 | 10 | ND (< 5) | 9.7 | ND (< 5) | - | 14 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-3 | | 3/7/1997 | ND (< 0.5) | 43 | 4.5 | 1.5 | 2.6 | ND (< 0.5) | ND (< 0.5) | 8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 ; CHLFM = 0.84 |
| RW-3 | | 6/6/1997 | 1 | 72 | 8.8 | 2.8 | 5.6 | ND (< 0.5) | ND (< 0.5) | 14 | 0.98 | ND (< 0.5) | ND (< 0.5) | CBMA = 102 ; CHLFM = 1.5 |
| RW-3 | Dup | 6/6/1997 | 0.66 | 66 | 8.6 | 2.7 | 5.4 | ND (< 0.5) | ND (< 0.5) | 13 | 0.83 | ND (< 0.5) | ND (< 0.5) | CBMA = 99 ; CHLFM = 1.4 |
| RW-3 | | 9/12/1997 | 5.9 | 100 | 12 | 2.7 | 7.2 | ND (< 1) | ND (< 1) | 7.6 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 100 ; CHLFM = 1.5 |
| RW-3 | | 12/5/1997 | 10 | 55 | 6.2 | 1.5 | 4.2 | ND (< 1) | ND (< 1) | 3.6 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 88 ; CHLFM = 1 |
| | | | | | | | | | | | | | | |
| RW-4 | | 1/23/1996 | 750 | 150 | 6.1 | ND (< 5) | ND (< 50) | ND (< 5) | - | 28 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-4 | | 3/7/1996 | 890 | 260 | 18 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 120 | ND (< 10) | ND (< 10) | ND (< 10) | |
| RW-4 | | 6/7/1996 | 600 | 190 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 92 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 115 |
| RW-4 | | 9/13/1996 | 480 | 180 | 17 | ND (< 10) | 11 | ND (< 10) | ND (< 10) | 96 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 108 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW-4 | | 12/13/1996 | 67 | 26 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 6.2 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 6.4 |
| RW-4 | | 3/7/1997 | 27 | 30 | 2.4 | 1.2 | 1.9 | ND (< 0.5) | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 ; CHLFM = 0.93 |
| RW-4 | | 6/9/1997 | 44 | 92 | 8.4 | 2.7 | 7.4 | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 ; CHLFM = 0.95 |
| RW-4 | | 9/11/1997 | 100 | 96 | 10 | ND (< 2.5) | 5.7 | ND (< 2.5) | ND (< 2.5) | 4.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 102 ; MC = 5 |
| RW-4 | | 12/5/1997 | 39 | 36 | 2.7 | ND (< 1) | 1.9 | ND (< 1) | ND (< 1) | 1.3 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 82 ; CHLFM = 1.6 |
| RW-4 | | 6/2/1998 | 30 | 67 | 3.3 | ND (< 2.5) | 3.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 113 |
| RW-4 | | 12/9/1998 | 59.5 | 124 | 9.72 | ND (< 2.5) | 6.7 | ND (< 2.5) | ND (< 2.5) | 10.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 110 |
| RW-4 | | 6/8/1999 | 16.9 | 118 | 8.33 | ND (< 5.00) | 5.22 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| RW-4 | | 12/10/1999 | 7.93 | 73 | 4.05 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 5) | ND (< 2.5) | |
| RW-4 | | 6/8/2000 | 8.1 | 84 | 2.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| RW-4 | | 12/5/2000 | 4.4 | 54 | 1.9 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| RW-4 | | 6/19/2001 | 6.9 | 43 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| RW-4 | | 6/25/2003 | 5.1 | 37 | 0.90 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | 0.93 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.65 |
| RW-4 | | 6/20/2005 | 6.9 | 24 | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-4 | | 6/18/2007 | 15 | 43 | 0.77 | ND (< 0.50) | 0.98 | ND (< 0.50) | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-4 | | 6/10/2009 | 10 | 38 | ND (< 0.50) | ND (< 0.50) | 0.65 | ND (< 0.50) | ND (< 0.50) | 0.70 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-4 | | 6/15/2011 | 12 | 44 | 0.53 | ND (< 0.50) | 0.90 | ND (< 0.50) | ND (< 0.50) | 0.65 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-4 | | 6/18/2013 | 10 | 38 | ND (< 0.50) | ND (< 0.50) | 0.61 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| RW-5 | | 1/23/1996 | - | 150 | 59 | ND (< 5) | - | ND (< 5) | - | 8.5 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-5 | | 1/23/1996 | 1,200 | - | - | ND (< 50) | ND (< 50) | ND (< 50) | - | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 100) | |
| RW-5 | | 3/7/1996 | 1,900 | 250 | 140 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | |
| RW-5 | | 6/10/1996 | 1,400 | 210 | 160 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 113 |
| RW-5 | | 9/13/1996 | 2,600 | 250 | 440 | ND (< 25) | 140 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 102 |
| RW-5 | Dup | 9/13/1996 | 2,500 | 210 | 410 | ND (< 25) | 130 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 97 ; MC = 44 |
| RW-5 | | 12/13/1996 | 1,100 | 130 | 170 | ND (< 25) | 42 | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| RW-5 | | 3/7/1997 | 610 | 270 | 90 | ND (< 10) | 30 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 97 |
| RW-5 | | 6/9/1997 | 600 | 180 | 120 | ND (< 10) | 27 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 98 |
| RW-5 | | 9/12/1997 | 1,700 | 210 | 360 | ND (< 25) | 36 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 98 |
| RW-5 | | 12/5/1997 | 950 | 97 | 170 | ND (< 25) | 29 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 85 |
| RW-5 | | 6/2/1998 | 1,200 | 75 | 160 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 108 |
| RW-5 | | 12/9/1998 | 1,050 | 178 | 152 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 98.3 |
| RW-5 | | 6/10/1999 | 3,230 | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | ND (< 250) | |
| RW-5 | | 12/10/1999 | 2,310 | 139 | 184 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 100) | ND (< 50) | |
| RW-5 | | 6/8/2000 | 1,500 | 120 | 85 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 200) | ND (< 50) | |
| RW-5 | | 12/8/2000 | 140 | ND (< 25) | 70 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 1,400 | ND (< 25) | |
| RW-5 | | 6/22/2001 | 900 | 80 | 33 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 100) | ND (< 25) | |
| RW-5 | | 7/2/2003 | 230 | 55 | 28 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| RW-5 | | 6/23/2004 | 230 | 55 | 36 | ND (< 2.0) | 2.5 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| RW-5 | | 6/22/2005 | 840 | 44 | 97 | ND (< 10) | 17 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| RW-5 | | 6/18/2007 | 550 | 51 | 87 | ND (< 5.0) | 8.7 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| RW-5 | | 5/1/2008 | 7.3 | ND (< 1) | 120 | ND (< 1) | 2.5 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | BRFM = 2.3 ; CT = 3.6 |
| RW-5 | | 11/5/2008 | 16 | 40 | 42 | ND (< 0.5) | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CT = 1.4 |
| RW-5 | | 4/30/2009 | 12 | 35 | 11 | ND (< 0.50) | 0.56 | 0.88 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | | 10/22/2009 | 9.2 | 33 | 6.1 | ND (< 0.50) | 0.96 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | | 6/8/2010 | 1,000 | 29 | 600 | ND (< 5.0) | 57 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | CT = 18 |
| RW-5 | | 11/4/2010 | 9.0 | 45 | 2.2 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | | 11/4/2010 | 580 | 51 | 170 | ND (< 5.0) | 17 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | CT = 5.6 |
| RW-5 | 14' | 3/28/2011 | 21 | 31 | 3.5 | ND (< 0.50) | 0.83 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | 18' | 3/28/2011 | 24 | 33 | 3.5 | ND (< 0.50) | 0.91 | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | 22' | 3/28/2011 | 660 | 33 | 95 | 0.57 | 5.0 | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 1.2 ; CT = 4.8 |
| RW-5 | 3V-C | 3/28/2011 | 24 | 33 | 2.2 | ND (< 0.50) | 0.59 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | | 6/15/2011 | 560 | 42 | 290 | 1.6 | 22 | ND (< 0.50) | ND (< 0.50) | 10 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 4.2 ; CT = 7.4 |
| RW-5 | | 6/12/2012 | 3,900 | 54 | 190 | ND (< 2.5) | 27 | ND (< 2.5) | ND (< 2.5) | 16 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CT = 3.5 |
| RW-5 | | 7/9/2012 | 2,900 | 53 | 200 | 2.3 | 30 | ND (< .50) | ND (< .50) | 16 | ND (< .50) | ND (< .50) | ND (< .50) | |
| RW-5 | 3V-C | 7/9/2012 | 23 | 39 | 1.8 | ND (< .50) | 0.84 | ND (< .50) | ND (< .50) | 0.90 | ND (< .50) | ND (< .50) | ND (< .50) | |
| RW-5 | | 4/4/2013 | 31 | 31 | 1.7 | ND (< 0.50) | 0.95 | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-5 | | 6/17/2013 | 370 | 84 | 8.7 | 12 | 8.7 | ND (< 2.5) | ND (< 2.5) | 6,400 | 13 | ND (< 2.5) | 5.6 | Carbon = 650 |
| RW-5 | | 8/23/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.8 | 7.8 | ND (< 0.50) | 41 | CHLEA = 3.8 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW-5 | | 11/22/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 4.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.2 | 4.1 | ND (< 0.50) | 6.0 | CHLEA = 1.7 |
| RW-5 | | 5/22/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 5.4 | 0.60 | ND (< 0.50) | 18 | |
| | | | | | | | | | | | | | | |
| RW-6 | | 1/23/1996 | - | 150 | 38 | ND (< 5) | - | ND (< 5) | - | 8.4 | ND (< 5) | ND (< 5) | ND (< 10) | |
| RW-6 | | 1/23/1996 | 1,200 | - | - | ND (< 50) | ND (< 50) | ND (< 50) | - | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 100) | |
| RW-6 | | 3/7/1996 | 940 | 170 | 48 | 4.1 | 26 | ND (< 2.5) | ND (< 2.5) | 11 | 3 | ND (< 2.5) | ND (< 2.5) | |
| RW-6 | | 6/10/1996 | 1,600 | 240 | 130 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | CBMA = 114 |
| RW-6 | | 9/13/1996 | 1,200 | 220 | 130 | ND (< 25) | 52 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 101 |
| RW-6 | | 12/13/1996 | 690 | 120 | 33 | ND (< 25) | ND (< 25) | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| RW-6 | | 3/7/1997 | 360 | 150 | 25 | ND (< 5) | 12 | ND (< 5) | ND (< 5) | 8.3 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 96 |
| RW-6 | | 6/9/1997 | 210 | 110 | 25 | ND (< 5) | 11 | ND (< 5) | ND (< 5) | 10 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 94 ; MC = 13 |
| RW-6 | | 9/12/1997 | 190 | 170 | 34 | ND (< 5) | 11 | ND (< 5) | ND (< 5) | 18 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 |
| RW-6 | Dup | 9/12/1997 | 240 | 190 | 40 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | 22 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 105 |
| RW-6 | | 12/5/1997 | 92 | 83 | 15 | ND (< 2.5) | 7 | ND (< 2.5) | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 90 |
| RW-6 | | 6/2/1998 | 78 | 110 | 13 | ND (< 5) | 6.4 | ND (< 5) | ND (< 5) | 9.5 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 106 |
| RW-6 | | 12/9/1998 | 96.9 | 133 | 22.5 | ND (< 5) | 6.59 | ND (< 5) | ND (< 5) | 12.4 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 92.3 |
| RW-6 | | 6/10/1999 | 75.9 | 90.2 | 12.4 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | 11.7 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| RW-6 | | 12/15/1999 | 110 | 130 | 14 | ND (< 2.5) | 5 | ND (< 2.5) | ND (< 2.5) | 6.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | MC = 8.2 |
| RW-6 | Dup | 12/15/1999 | 110 | 130 | 15 | ND (< 2.5) | 4.9 | ND (< 2.5) | ND (< 2.5) | 6.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | MC = 27 |
| RW-6 | | 6/9/2000 | 22 | 20 | 3.1 | ND (< 0.50) | 0.58 | ND (< 0.50) | ND (< 0.50) | 0.62 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| RW-6 | | 12/12/2000 | 120 | 110 | 13 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| RW-6 | | 6/21/2001 | 190 | 64 | 14 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| RW-6 | | 6/26/2003 | 330 | 61 | 20 | ND (< 5.0) | 5.6 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| RW-6 | | 6/23/2004 | 8.9 | 46 | 1.6 | 0.54 | 1.7 | ND (< 0.50) | ND (< 0.50) | 4.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.81 |
| RW-6 | | 6/20/2005 | 140 | 39 | 9.9 | ND (< 2.0) | 3.7 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| RW-6 | | 6/18/2007 | 220 | 51 | 13 | ND (< 2.0) | 5.6 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| RW-6 | | 6/10/2009 | 140 | 41 | 21 | ND (< 2.5) | 3.8 | ND (< 2.5) | ND (< 2.5) | 10 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| RW-6 | | 6/15/2011 | 110 | 33 | 9.5 | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | 2.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-6 | | 4/4/2013 | 98 | 31 | 5.3 | ND (< 0.50) | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| RW-6 | | 6/18/2013 | 5.9 | 1.3 | 3.7 | 9.7 | 2.0 | ND (< 0.50) | ND (< 0.50) | 890 | 7.8 | ND (< 0.50) | ND (< 0.50) | 1,1,2-TCA = 0.59 |
| RW-6 | | 11/22/2013 | 0.82 | 1.4 | 3.4 | 18 | 0.71 | ND (< 0.50) | ND (< 0.50) | 49 | 22 | ND (< 0.50) | 160 | CHLEA = 1.4 |
| RW-6 | | 5/22/2014 | ND (< 0.50) | 4.5 | 2.9 | 14 | 1.7 | ND (< 0.50) | ND (< 0.50) | 85 | 4.8 | ND (< 0.50) | 160 | CHLEA = 1.3 |
| | | | | | | | | | | | | | | |
| SC-1 | | 12/11/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |
| SC-1 | | 2/6/1991 | 100 | 1,500 | 290 | 200 | 150 | 150 | 500 | - | - | 500 | 150 | 1,1,2,2-TCA = 150 ; 1,1,2-TCA = 100 ; 1,2-DCPA = 100 ; 1,3-DCB = 500 ; 1,4-DCB = 500 ; 2-CVE = 200 ; BDCHLMA = 200 ; BRFM = 250 ; BRMA = 250 ; CHLBZ = 200 ; CHLEA = 250 ; CHLFM = 100 ; CHLMA = 250 ; cis-1,3-DCP = 150 ; CT = 150 ; DBCM = 200 ; EDB = 500 ; Freon 11 = 250 ; MC = 2,500 ; trans-1,3-DCP = 150 |
| SC-1 | | 4/19/1991 | 1 | 1,800 | 210 | 59 | 63 | 1.5 | 0.5 | - | - | 29 | 1.5 | 1,1,2,2-TCA = 1.5 ; 1,1,2-TCA = 1 ; 1,2-DCPA = 1 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 2 ; Acetone = 30 ; BDCHLMA = 2 ; Benzene = 0.5 ; BRFM = 2.5 ; BRMA = 2.5 ; CHLBZ = 0.5 ; CHLEA = 2.5 ; CHLFM = 2.6 ; CHLMA = 2.5 ; cis-1,3-DCP = 1.5 ; CT = 1.5 ; DBCM = 2 ; EDB = 5 ; Ethylbenzene = 0.5 ; Freon 11 = 4.3 ; MC = 25 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 1.5 ; Xylenes = 0.5 |
| SC-1 | | 4/19/1991 | ND (< 10) | 1,700 | 260 | 60 | ND (< 25) | ND (< 10) | ND (< 10) | 150 | ND (< 10) | ND (< 10) | ND (< 10) | |
| SC-1 | | 7/31/1991 | ND (< 25) | 1,700 | 200 | 30 | ND (< 25) | ND (< 25) | ND (< 25) | 70 | ND (< 25) | ND (< 25) | ND (< 25) | |
| SC-1 | | 11/6/1991 | ND (< 5) | 1,600 | 210 | 97 | ND (< 25) | ND (< 5) | ND (< 5) | 210 | ND (< 5) | 23 | ND (< 5) | |
| SC-1 | | 12/5/1991 | ND (< 5) | 1,400 | 150 | 33 | ND (< 50) | ND (< 5) | - | - | ND (< 5) | 49 | ND (< 10) | |
| SC-1 | | 11/4/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| SH1 | | 10/14/1991 | ND (< 10) | 110 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 18 | ND (< 10) | |
| SH1 | | 11/12/1991 | 2.8 | 86 | 2.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 12/13/1991 | ND (< 5) | 110 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| SH1 | | 3/6/1992 | 3 | 77 | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 6/12/1992 | 2.1 | 81 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SH1 | | 9/16/1992 | 1.1 | 90 | 2.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 12/15/1992 | ND (< 5) | 94 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| SH1 | | 3/10/1993 | 1.8 | 92 | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 6/9/1993 | ND (< 0.5) | 90 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 9/13/1993 | 0.55 | 130 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 12/2/1993 | ND (< 5) | 80 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| SH1 | | 3/3/1994 | 0.6 | 130 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 6/9/1994 | ND (< 0.5) | 19 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 9/6/1994 | 0.51 | 100 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 12/5/1994 | ND (< 5) | 110 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| SH1 | | 3/3/1995 | 0.71 | 95 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 6/6/1995 | ND (< 0.5) | 90 | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 11/9/1995 | 4.1 | 69 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| SH1 | | 12/8/1995 | ND (< 5) | 44 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| SH1 | | 3/7/1996 | ND (< 2.5) | 100 | 4.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| SH1 | | 6/11/1996 | 2.4 | 56 | 1.8 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 104 |
| SH1 | | 9/12/1996 | 5.3 | 55 | 1.7 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 101 ; MC = 1.5 |
| SH1 | | 12/12/1996 | 5.3 | 43 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| SH1 | | 3/6/1997 | 1.1 | 19 | 0.57 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| SH1 | | 6/5/1997 | ND (< 0.5) | 33 | 1.1 | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| SH1 | | 12/4/1997 | 1.1 | 34 | 0.76 | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 88 |
| SH1 | | 6/4/1998 | ND (< 0.5) | 8.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| SH1 | | 12/10/1998 | ND (< 0.5) | 29.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| SH1 | | 6/8/1999 | 2.12 | 31.9 | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | |
| SH1 | | 12/8/1999 | 4.18 | 28.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| SH1 | | 6/8/2000 | 1.1 | 29 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| SH1 | | 12/7/2000 | ND (< 0.50) | 33 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| SH1 | | 6/21/2001 | 0.82 | 29 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| SH1 | | 6/27/2003 | 5.2 | 9.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| SH1 | | 6/20/2005 | ND (< 0.50) | 16 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| SH1 | | 6/14/2007 | ND (< 0.50) | 16 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| SH1 | | 6/15/2009 | ND (< 0.50) | 17 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| SH1 | | 6/15/2011 | ND (< 0.50) | 17 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| SH1 | | 6/20/2013 | ND (< 0.50) | 15 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| SH2 | | 6/15/2011 | 24 | 2.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| T1A | | 3/23/2005 | ND (< 0.5) | 78 | ND (< 0.5) | 4.3 | 0.8 | - | ND (< 0.5) | 1.6 | - | ND (< 1.0) | - | |
| T1A | | 4/29/2005 | 3.2 | 68 | ND (< 0.5) | 17 | 4.4 | ND (< 0.5) | ND (< 0.5) | 6.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| T1A | | 6/28/2005 | 2.4 | 8.2 | 0.58 | 17 | 4.9 | ND (< 0.5) | ND (< 0.5) | 6.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| T1A | | 9/12/2005 | ND (< 0.5) | 7.3 | ND (< 0.5) | 17 | 4.6 | ND (< 0.5) | ND (< 0.5) | 6.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| T1A | | 1/11/2006 | ND (< 5) | 440 | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | |
| T1A | | 6/28/2006 | ND (< 0.50) | 29 | ND (< 0.50) | 23 | 8.7 | ND (< 0.50) | ND (< 0.50) | 12 | 0.61 | ND (< 0.50) | ND (< 0.50) | |
| T1A | | 6/27/2007 | ND (< 0.50) | 12 | 0.68 | 22 | 12 | ND (< 0.50) | ND (< 0.50) | 16 | 0.82 | ND (< 0.50) | ND (< 0.50) | |
| T1A | | 6/11/2009 | ND (< 2.5) | 240 | ND (< 2.5) | 23 | 14 | ND (< 2.5) | ND (< 2.5) | 29 | 3.3 | ND (< 2.5) | ND (< 2.5) | |
| T1A | | 6/9/2010 | ND (< 2.5) | 260 | ND (< 2.5) | 19 | 11 | ND (< 2.5) | ND (< 2.5) | 24 | 3.0 | ND (< 2.5) | ND (< 2.5) | |
| T1A | | 6/14/2011 | ND (< 0.50) | 62 | 1.5 | 21 | 17 | ND (< 0.50) | ND (< 0.50) | 25 | 1.9 | ND (< 0.50) | ND (< 0.50) | |
| T1A | | 6/13/2012 | ND (< 0.50) | 32 | 4.8 | 27 | 25 | ND (< 0.50) | ND (< 0.50) | 42 | 2.0 | ND (< 0.50) | ND (< 0.50) | |
| T1A | | 6/19/2013 | ND (< 0.50) | 21 | 7.5 | 23 | 25 | ND (< 0.50) | ND (< 0.50) | 39 | 2.2 | ND (< 0.50) | ND (< 0.50) | |
| T1A | | 6/11/2014 | ND (< 0.50) | 250 | 1.5 | 19 | 23 | ND (< 0.50) | ND (< 0.50) | 160 | 8.4 | ND (< 0.50) | ND (< 0.50) | |
| T1A | Dup | 6/11/2014 | ND (< 2.5) | 240 | ND (< 2.5) | 17 | 17 | ND (< 2.5) | ND (< 2.5) | 150 | 6.3 | ND (< 2.5) | ND (< 2.5) | 1,2,4-TCB = 20 |
| | | | | | | | | | | | | | | |
| T2A | | 3/23/2005 | ND (< 0.5) | 67 | ND (< 0.5) | ND (< 0.5) | 0.6 | - | ND (< 0.5) | 1.8 | - | ND (< 1.0) | - | |
| T2A | | 4/29/2005 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | |
| T2A | | 6/28/2005 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| TW-1 | 1C | 08/05/12 | 110 | 640 | 46 | 6.5 | 13 | ND (< 5.0) | 120 | 28 | ND (< 5.0) | 270 | ND (< 5.0) | 1,2,4-TCB = 12 |
| TW-1 | 2C | 08/05/12 | 97 | 550 | 45 | 6.3 | 13 | ND (< 5.0) | 120 | 34 | ND (< 5.0) | 260 | ND (< 5.0) | 1,2,4-TCB = 13 |
| TW-1 | 3C | 08/05/12 | 94 | 480 | 41 | 5.8 | 12 | ND (< 5.0) | 110 | 37 | ND (< 5.0) | 240 | ND (< 5.0) | 1,2,4-TCB = 12 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TW-1 | | 1/16/2014 | 42 | 74 | 76 | 11 | 12 | ND (< 1.0) | 100 | 130 | ND (< 1.0) | 95 | ND (< 1.0) | 1,2,3-TCB = 2.3 , 1,2,4-TCB = 18 , 1,4-DCB = 1.4 |
| TW-1 | | 6/11/2014 | 65 | 560 | 610 | 24 | 41 | ND (< 5.0) | 170 | 340 | ND (< 5.0) | 880 | ND (< 5.0) | 1,2,4-TCB = 92 |
| | | | | | | | | | | | | | | |
| TW-2 | 1C | 08/05/12 | ND (< 100) | 16,000 | 800 | 220 | 110 | ND (< 100) | ND (< 100) | 130 | ND (< 100) | 2,500 | ND (< 100) | |
| TW-2 | 2C | 08/05/12 | ND (< 100) | 12,000 | 510 | 130 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 1,400 | ND (< 100) | |
| TW-2 | 3C | 08/05/12 | ND (< 100) | 11,000 | 450 | 130 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 1,000 | ND (< 100) | |
| TW-2 | | 1/16/2014 | 81 | 3,300 | 160 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 130 | ND (< 50) | 670 | ND (< 50) | |
| TW-2 | | 6/11/2014 | 70 | 1,700 | 570 | 40 | 38 | ND (< 5.0) | 93 | 310 | ND (< 5.0) | 730 | ND (< 5.0) | |
| | | | | | | | | | | | | | | |
| V8-1 | | 12/20/1990 | 0.2 | 320 | 3.7 | 3.9 | 5.9 | 0.3 | 0.5 | - | - | 1 | 5.2 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V8-1 | | 4/11/1991 | ND (< 50) | 7,300 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 10) | 140 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-1 | Dup | 4/11/1991 | 0.4 | - | 1.8 | 3.6 | 4 | 0.7 | 1 | - | - | 1 | 0.4 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V8-1 | Dup | 4/11/1991 | 0.4 | 0.5 | 1.8 | 0.4 | 4 | 0.7 | 1 | - | - | 1 | 0.4 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V8-1 | | 7/24/1991 | ND (< 50) | 16,000 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 570 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-1 | | 11/7/1991 | ND (< 25) | 12,000 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 560 | ND (< 25) | ND (< 25) | ND (< 25) | |
| V8-1 | | 12/5/1991 | ND (< 10) | 760 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | - | - | ND (< 10) | ND (< 10) | ND (< 20) | |
| V8-1 | | 3/4/1992 | ND (< 10) | 13,000 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 480 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-1 | Dup | 3/4/1992 | ND (< 10) | 9,300 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 370 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-1 | | 6/3/1992 | ND (< 25) | 7,800 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 200 | ND (< 25) | ND (< 25) | ND (< 25) | |
| V8-1 | | 10/12/1992 | ND (< 25) | 7,400 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 280 | ND (< 25) | ND (< 25) | ND (< 25) | |
| V8-1 | | 10/12/1992 | ND (< 0.5) | 200 | 9.5 | 8.9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 7.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-1 | | 12/4/1992 | ND (< 25) | 4,500 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | 230 | ND (< 25) | ND (< 25) | ND (< 50) | |
| V8-1 | | 3/4/1993 | ND (< 50) | 10,000 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 250 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-1 | | 6/9/1993 | ND (< 5) | 1,500 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 76 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-1 | | 9/8/1993 | ND (< 10) | 2,300 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 69 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-1 | | 12/6/1993 | ND (< 50) | 6,600 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | - | 240 | ND (< 50) | ND (< 50) | ND (< 100) | |
| V8-1 | | 3/9/1994 | ND (< 50) | 8,900 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 350 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-1 | | 6/3/1994 | ND (< 25) | 2,900 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 140 | ND (< 25) | ND (< 25) | ND (< 25) | |
| V8-1 | | 9/6/1994 | ND (< 5) | 1,000 | 9.1 | 7.2 | ND (< 5) | ND (< 5) | ND (< 5) | 71 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-1 | Dup | 9/6/1994 | ND (< 5) | 1,100 | 9.3 | 7.4 | ND (< 5) | ND (< 5) | ND (< 5) | 74 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-1 | | 12/6/1994 | ND (< 25) | 760 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | 38 | ND (< 25) | ND (< 25) | ND (< 50) | |
| V8-1 | | 3/6/1995 | ND (< 5) | 1,300 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 93 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-1 | | 6/8/1995 | ND (< 0.5) | 82 | 4.8 | 5.7 | - | ND (< 0.5) | ND (< 0.5) | 6.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.84 |
| V8-1 | | 9/7/1995 | ND (< 25) | 2,600 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 190 | ND (< 25) | ND (< 25) | ND (< 25) | MC = 67 |
| V8-1 | | 11/17/1995 | ND (< 0.5) | 130 | 7.2 | 6.5 | - | 0.85 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| V8-1 | Dup | 11/17/1995 | ND (< 0.5) | 120 | 7.2 | 6.1 | - | 0.92 | ND (< 0.5) | 15 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.97 |
| V8-1 | | 12/6/1995 | ND (< 5) | 310 | 6 | 6.1 | - | ND (< 5) | - | 20 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-1 | Dup | 12/6/1995 | ND (< 5) | 290 | 6.1 | 6.2 | - | ND (< 5) | - | 21 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-1 | | 3/6/1996 | ND (< 120) | 10,000 | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | 390 | ND (< 120) | ND (< 120) | ND (< 120) | MC = 220 |
| V8-1 | | 6/7/1996 | ND (< 2.5) | 200 | 8.7 | 5.8 | 6.2 | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 118 |
| V8-1 | | 9/12/1996 | ND (< 25) | 1,900 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 150 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 105 ; MC = 37 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-1 | | 12/12/1996 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | - | 330 | ND (< 10) | ND (< 10) | ND (< 20) | MC = 12 |
| V8-1 | | 3/6/1997 | ND (< 25) | 1,500 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 87 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 101 ; MC = 25 |
| V8-1 | | 6/6/1997 | ND (< 25) | 1,400 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 120 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 101 |
| V8-1 | | 9/12/1997 | ND (< 25) | 840 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 56 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 104 |
| V8-1 | | 12/3/1997 | ND (< 25) | 2,600 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 200 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 94 |
| V8-1 | | 6/5/1998 | ND (< 25) | 600 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 34 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 109 |
| V8-1 | | 12/11/1998 | ND (< 10) | 508 | ND (< 10) | 13.8 | ND (< 10) | ND (< 10) | ND (< 10) | 35.7 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 89 |
| V8-1 | | 6/10/1999 | ND (< 25.0) | 566 | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | 35.3 | ND (< 25.0) | ND (< 25.0) | ND (< 25.0) | |
| V8-1 | | 7/29/1999 | ND (< 100) | 3,120 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 204 | ND (< 100) | ND (< 100) | ND (< 100) | |
| V8-1 | | 12/10/1999 | ND (< 12.5) | 678 | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | 44 | ND (< 12.5) | ND (< 25) | ND (< 12.5) | |
| V8-1 | Dup | 12/10/1999 | ND (< 16.7) | 665 | ND (< 16.7) | ND (< 16.7) | ND (< 16.7) | ND (< 16.7) | ND (< 16.7) | 40.1 | ND (< 16.7) | ND (< 33.3) | ND (< 16.7) | |
| V8-1 | | 6/8/2000 | ND (< 50) | 1,100 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 54 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-1 | | 12/5/2000 | ND (< 10) | 490 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 27 | ND (< 10) | ND (< 40) | ND (< 10) | |
| V8-1 | | 6/19/2001 | ND (< 13) | 360 | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 13) | 42 | ND (< 13) | ND (< 50) | ND (< 13) | |
| V8-1 | | 6/26/2003 | ND (< 5.0) | 620 | ND (< 5.0) | 5.8 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 37 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-1 | Dup | 6/26/2003 | ND (< 5.0) | 630 | ND (< 5.0) | 6.9 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 31 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-1 | | 1/16/2004 | - | 3,400 | ND | ND | ND | - | - | 110 | - | - | - | |
| V8-1 | | 4/26/2004 | - | 889 | ND | ND | ND | - | - | 194 | - | - | - | |
| V8-1 | | 12/6/2004 | - | 530 | ND | 5 | ND | - | - | 35 | - | - | - | |
| V8-1 | | 6/21/2005 | ND (< 10) | 870 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 43 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-1 | | 4/5/2006 | ND (< 10) | 460 | ND (< 10) | ND (< 10) | ND (< 10) | - | ND (< 10) | 120 | ND (< 10) | ND (< 10) | - | |
| V8-1 | | 6/27/2006 | ND (< 0.50) | 280 | ND (< 0.50) | 10 | 3 | - | ND (< 1.0) | 120 | - | ND (< 0.50) | - | |
| V8-1 | | 6/21/2007 | ND (< 10) | 610 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-1 | | 8/14/2007 | ND (< 2.0) | 180 | ND (< 2.0) | 8.7 | ND (< 2.0) | - | ND (< 2.0) | 21 | ND (< 2.0) | 2 | - | |
| V8-1 | | 6/27/2008 | ND (< 2.0) | 140 | ND (< 2.0) | 9.1 | 3.7 | ND (< 2.0) | ND (< 2.0) | 15 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| V8-1 | | 6/15/2009 | ND (< 5.0) | 2,600 | ND (< 5.0) | 7.2 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 42 | 5.2 | ND (< 5.0) | ND (< 5.0) | |
| V8-1 | | 6/8/2010 | ND (< 50) | 3,700 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-1 | Dup | 6/8/2010 | ND (< 10) | 3,700 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 49 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-1 | | 7/11/2011 | ND (< 2.5) | 190 | ND (< 2.5) | 4.4 | 2.6 | ND (< 2.5) | ND (< 2.5) | 25 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-1 | | 6/12/2012 | ND (< 2.5) | 210 | ND (< 2.5) | 3.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-1 | | 6/18/2013 | ND (< 2.5) | 160 | ND (< 2.5) | 2.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-1 | | 6/11/2014 | 0.52 | 100 | ND (< 0.50) | 6.4 | 2.9 | ND (< 0.50) | ND (< 0.50) | 16 | 1.0 | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V8-2 | | 12/20/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,2,4-TCB = 10 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |
| V8-2 | | 2/15/1991 | 2.6 | 620 | 30 | 30 | 28 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; BDCHLMA = 4 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 3.3 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Freon 11 = 5 ; MC = 50 ; trans-1,3-DCP = 3 |
| V8-2 | | 4/19/1991 | 3 | 30,000 | 60 | 34 | ND (< 500) | 5 | ND (< 0.5) | 110 | 2 | ND (< 0.5) | ND (< 0.5) | 1,1,2-TCA = 3 ; Benzene = 1 ; CHLFM = 10 ; MC = 1 |
| V8-2 | | 7/24/1991 | ND (< 50) | 17,000 | 80 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 10) | 210 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-2 | | 10/7/1991 | ND (< 120) | 19,000 | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | 280 | ND (< 120) | ND (< 120) | ND (< 120) | |
| V8-2 | | 12/9/1991 | ND (< 5) | 8,600 | 180 | 49 | ND (< 250) | ND (< 5) | ND (< 10) | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-2 | | 3/5/1992 | ND (< 100) | 43,000 | 180 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 420 | ND (< 100) | ND (< 100) | ND (< 100) | |
| V8-2 | | 6/4/1992 | ND (< 10) | 7,400 | 350 | 94 | ND (< 100) | ND (< 10) | ND (< 10) | 410 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-2 | Dup | 6/4/1992 | - | - | - | - | - | - | ND (< 10) | - | - | - | - | |
| V8-2 | | 10/12/1992 | ND (< 2.5) | 84 | 250 | 150 | ND (< 10) | ND (< 2.5) | ND (< 2.5) | 630 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | Freon 11 = 18 |
| V8-2 | | 12/8/1992 | ND (< 5) | - | - | 110 | - | ND (< 5) | - | - | ND (< 5) | 7.9 | ND (< 10) | |
| V8-2 | | 12/8/1992 | ND (< 25) | 5,900 | 420 | 130 | ND (< 250) | ND (< 25) | - | 900 | ND (< 25) | ND (< 25) | ND (< 50) | |
| V8-2 | Dup | 12/8/1992 | - | 690 | 500 | - | ND (< 25) | - | - | 960 | - | - | - | |
| V8-2 | | 3/3/1993 | ND (< 100) | 34,000 | 680 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 820 | ND (< 100) | ND (< 100) | ND (< 100) | |
| V8-2 | | 6/11/1993 | ND (< 5) | 520 | 1,200 | 140 | ND (< 25) | ND (< 5) | ND (< 5) | 920 | ND (< 5) | 41 | ND (< 5) | Freon 11 = 19 ; Toluene = 18 |
| V8-2 | Dup | 6/11/1993 | ND (< 5) | 430 | 1,100 | 130 | ND (< 25) | ND (< 5) | ND (< 5) | 880 | ND (< 5) | 34 | ND (< 5) | Freon 11 = 16 ; Toluene = 9 |
| V8-2 | | 9/8/1993 | ND (< 5) | 88 | 1,700 | 190 | ND (< 25) | ND (< 5) | ND (< 5) | 1,500 | ND (< 5) | 54 | ND (< 5) | CHLFM = 7.5 ; Freon 11 = 39 |
| V8-2 | | 12/6/1993 | ND (< 50) | 36,000 | 840 | 120 | - | ND (< 50) | - | 1,500 | ND (< 50) | ND (< 50) | ND (< 100) | |
| V8-2 | | 3/8/1994 | ND (< 100) | 50,000 | 1,400 | 140 | - | ND (< 100) | ND (< 100) | 1,900 | ND (< 100) | ND (< 100) | ND (< 100) | |
| V8-2 | | 6/3/1994 | ND (< 25) | 16,000 | 2,700 | 320 | - | ND (< 25) | ND (< 25) | 2,500 | ND (< 25) | 130 | ND (< 25) | Freon 11 = 32 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-2 | | 9/6/1994 | 9.3 | 37,000 | 2,300 | 230 | - | 9.1 | ND (< 5) | 2,100 | 7.6 | 230 | ND (< 5) | 1,1,2-TCA = 6.7 ; CHLFM = 18 ; Freon 11 = 35 |
| V8-2 | | 12/6/1994 | ND (< 250) | 36,000 | 1,800 | ND (< 250) | ND (< 250) | ND (< 250) | - | 1,200 | ND (< 250) | ND (< 250) | ND (< 500) | |
| V8-2 | | 2/1/1995 | ND (< 50) | 47,000 | 1,300 | 65 | - | ND (< 50) | - | 1,300 | ND (< 50) | 160 | ND (< 100) | |
| V8-2 | | 3/6/1995 | ND (< 25) | 2,300 | 2,700 | 140 | - | ND (< 25) | ND (< 25) | 2,200 | ND (< 25) | 240 | ND (< 25) | |
| V8-2 | | 6/9/1995 | ND (< 5) | 1,200 | 1,100 | 61 | - | ND (< 5) | ND (< 5) | 670 | ND (< 5) | 110 | ND (< 5) | |
| V8-2 | | 9/8/1995 | ND (< 100) | 1,800 | 560 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 240 | ND (< 100) | ND (< 100) | ND (< 100) | |
| V8-2 | | 11/17/1995 | 20 | 11,000 | 760 | 34 | - | 15 | ND (< 5) | 370 | ND (< 5) | 140 | ND (< 5) | CHLFM = 15 |
| V8-2 | | 12/8/1995 | ND (< 5) | 10,000 | 1,200 | 38 | ND (< 500) | ND (< 5) | - | 770 | ND (< 5) | 180 | ND (< 10) | |
| V8-2 | | 4/4/1996 | ND (< 100) | 4,000 | 570 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 380 | ND (< 100) | 110 | ND (< 100) | |
| V8-2 | | 6/11/1996 | ND (< 2.5) | 170 | 43 | 9.4 | 9.8 | ND (< 2.5) | ND (< 2.5) | 24 | ND (< 2.5) | 8 | ND (< 2.5) | CBMA = 106 |
| V8-2 | | 9/13/1996 | ND (< 2.5) | 600 | 100 | 13 | 24 | ND (< 2.5) | ND (< 2.5) | 60 | ND (< 2.5) | 19 | ND (< 2.5) | CBMA = 103 ; CHLFM = 2.9 |
| V8-2 | | 12/16/1996 | ND (< 120) | 2,700 | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | - | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 250) | |
| V8-2 | | 3/7/1997 | ND (< 100) | 12,000 | 160 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | 140 | ND (< 100) | ND (< 100) | ND (< 100) | CBMA = 100 |
| V8-2 | | 6/9/1997 | ND (< 120) | 9,400 | 370 | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | 300 | ND (< 120) | ND (< 120) | ND (< 120) | CBMA = 98 ; MC = 580 |
| V8-2 | | 9/12/1997 | ND (< 120) | 3,600 | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | CBMA = 101 |
| V8-2 | | 12/3/1997 | ND (< 120) | 38,000 | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | ND (< 120) | 310 | ND (< 120) | ND (< 120) | ND (< 120) | CBMA = 100 |
| V8-2 | | 6/5/1998 | ND (< 2.5) | 72 | 5.4 | 7.5 | 11 | ND (< 2.5) | ND (< 2.5) | 4.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 109 |
| V8-2 | Dup | 6/5/1998 | ND (< 2.5) | 66 | 5.4 | 7.6 | 8.9 | ND (< 2.5) | ND (< 2.5) | 4.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 |
| V8-2 | | 12/11/1998 | ND (< 2.5) | 68.7 | 8.91 | 18.2 | 13.8 | ND (< 2.5) | ND (< 2.5) | 5.08 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 94.7 |
| V8-2 | | 6/10/1999 | ND (< 5.00) | 166 | ND (< 5.00) | 13.7 | 8.20 | ND (< 5.00) | ND (< 5.00) | 5.29 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| V8-2 | | 7/29/1999 | ND (< 2.50) | 60.1 | ND (< 2.50) | 7.34 | 4.05 | ND (< 2.50) | ND (< 2.50) | 2.69 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |
| V8-2 | Dup | 7/29/1999 | ND (< 2.50) | 47.1 | ND (< 2.50) | 5.40 | 3.20 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |
| V8-2 | | 12/10/1999 | ND (< 3.13) | 101 | 5.18 | 20.4 | 9.26 | ND (< 3.13) | ND (< 3.13) | 7.18 | ND (< 3.13) | ND (< 6.25) | ND (< 3.13) | |
| V8-2 | | 6/9/2000 | ND (< 1.0) | 77 | 3.9 | 15 | 7.5 | ND (< 1.0) | ND (< 1.0) | 6.9 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| V8-2 | | 12/5/2000 | ND (< 2.5) | 160 | ND (< 2.5) | 16 | 5.9 | ND (< 2.5) | ND (< 2.5) | 3.3 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-2 | | 6/19/2001 | ND (< 1.0) | 60 | 1.1 | 5.1 | 3.1 | ND (< 1.0) | ND (< 1.0) | 1.4 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| V8-2 | | 6/26/2003 | ND (< 1.0) | 110 | 1.1 | 12 | 5.1 | ND (< 1.0) | ND (< 1.0) | 5.9 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| V8-2 | | 1/16/2004 | - | 970 | ND | ND | ND | - | - | ND | - | - | - | |
| V8-2 | | 4/26/2004 | - | 2,670 | ND | ND | ND | - | - | 53.2 | - | - | - | |
| V8-2 | | 12/6/2004 | - | 2,600 | ND | ND | ND | - | - | ND | - | - | - | |
| V8-2 | | 6/20/2005 | ND (< 0.50) | 69 | 0.55 | 0.80 | 1.0 | ND (< 0.50) | ND (< 0.50) | 0.60 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-2 | | 8/20/2005 | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 5) | - | |
| V8-2 | | 4/6/2006 | ND (< 0.50) | 85 | ND (< 0.50) | 0.66 | 0.56 | - | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | - | |
| V8-2 | | 7/5/2007 | ND (< 5.0) | 390 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 16 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-2 | | 8/14/2007 | ND (< 10) | 800 | ND (< 10) | ND (< 10) | ND (< 10) | - | ND (< 10) | 41 | ND (< 10) | ND (< 10) | - | |
| V8-2 | | 6/11/2009 | ND (< 5.0) | 1,400 | ND (< 5.0) | 14 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 13 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-2 | | 6/14/2011 | ND (< 5.0) | 1,400 | ND (< 5.0) | 14 | 7.4 | ND (< 5.0) | ND (< 5.0) | 7.1 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-2 | | 6/18/2013 | ND (< 5.0) | 1,300 | ND (< 5.0) | 9.1 | 5.5 | ND (< 5.0) | ND (< 5.0) | 6.3 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-2 | | 6/11/2014 | ND (< 10) | 8,200 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 26 | ND (< 10) | ND (< 10) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| V8-2X | | 12/18/1990 | 2 | 220 | 12 | 6.9 | 9.5 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| V8-2X | | 12/16/1999 | ND (< 13) | 530 | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 13) | ND (< 1) | ND (< 13) | |
| V8-2X | | 8/15/2000 | ND (< 10) | 680 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 11 | ND (< 10) | ND (< 40) | ND (< 10) | |
| V8-2X | | 12/5/2000 | ND (< 10) | 630 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 40) | ND (< 10) | |
| V8-2X | | 6/22/2001 | ND (< 10) | 500 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 40) | ND (< 10) | |
| V8-2X | | 6/26/2003 | ND (< 10) | 590 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 10 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-2X | | 6/29/2005 | ND (< 2.0) | 170 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 3.1 | |
| V8-2X | Dup | 6/29/2005 | ND (< 2.0) | 160 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 3.8 | |
| V8-2X | | 7/5/2007 | ND (< 2.0) | 200 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 13 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| V8-2X | | 6/9/2009 | ND (< 2.5) | 5,900 | 3.2 | 9.5 | 6.7 | ND (< 2.5) | ND (< 2.5) | 16 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-2X | Dup | 6/9/2009 | ND (< 5.0) | 5,600 | ND (< 5.0) | 9.4 | 6.8 | ND (< 5.0) | ND (< 5.0) | 16 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-2X | | 6/14/2011 | ND (< 5.0) | 420 | ND (< 5.0) | 10 | 6.5 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-2X | | 7/25/2013 | ND (< 5.0) | 350 | ND (< 5.0) | 12 | 8.9 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| V8-3 | | 12/14/1990 | 2 | 5 | 51 | 13 | 18 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| V8-3 | | 4/12/1991 | ND (< 0.5) | 6 | 56 | 26 | - | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-3 | Dup | 4/12/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| V8-3 | Dup | 4/12/1991 | ND (< 3) | 8 | 61 | 27 | - | ND (< 3) | ND (< 3) | ND (< 3) | ND (< 3) | ND (< 3) | ND (< 3) | |
| V8-3 | | 7/25/1991 | ND (< 0.5) | 0.5 | 4.6 | 3.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-3 | | 10/8/1991 | ND (< 0.5) | 5.3 | 53 | 25 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| V8-3 | | 12/6/1991 | ND (< 5) | ND (< 5) | 41 | 25 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-3 | | 3/5/1992 | ND (< 0.5) | 3.5 | 42 | 23 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| V8-3 | | 6/3/1992 | ND (< 0.5) | 4.6 | 54 | 27 | - | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| V8-3 | | 10/12/1992 | ND (< 0.5) | 7.8 | 55 | 34 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-3 | | 12/9/1992 | ND (< 5) | 7.6 | 55 | 28 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-3 | | 3/3/1993 | ND (< 0.5) | 4 | 27 | 15 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.2 ; CHLFM = 5.1 ; DBCM = 2.9 |
| V8-3 | Dup | 3/3/1993 | ND (< 0.5) | 3.5 | 25 | 14 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 3.4 ; CHLFM = 5 ; DBCM = 3 |
| V8-3 | | 6/9/1993 | ND (< 0.5) | 3.5 | 26 | 18 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.5 |
| V8-3 | | 9/8/1993 | ND (< 0.5) | 18 | 56 | 43 | - | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | 0.89 | ND (< 0.5) | CHLFM = 1.1 |
| V8-3 | | 12/6/1993 | ND (< 5) | 6.3 | 5.4 | 7 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-3 | | 3/8/1994 | ND (< 0.5) | 20 | 37 | 33 | - | 0.84 | ND (< 0.5) | 12 | ND (< 0.5) | 0.61 | ND (< 0.5) | CHLFM = 1.4 |
| V8-3 | Dup | 3/8/1994 | ND (< 0.5) | 20 | 38 | 34 | - | ND (< 0.5) | ND (< 0.5) | 13 | ND (< 0.5) | 0.73 | ND (< 0.5) | CHLFM = 1.4 |
| V8-3 | | 6/3/1994 | ND (< 0.5) | 22 | 50 | 49 | - | 0.76 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 |
| V8-3 | | 9/6/1994 | ND (< 0.5) | 25 | 45 | 46 | - | ND (< 0.5) | ND (< 0.5) | 16 | ND (< 0.5) | 0.58 | ND (< 0.5) | CHLFM = 1.4 |
| V8-3 | | 12/6/1994 | ND (< 5) | 22 | 34 | 32 | - | ND (< 5) | - | 26 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-3 | | 3/6/1995 | ND (< 0.5) | 21 | 54 | 38 | ND (< 0.5) | 0.78 | ND (< 0.5) | 59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.9 ; Freon 11 = 1.8 |
| V8-3 | | 6/7/1995 | ND (< 0.5) | 27 | 160 | 33 | ND (< 0.5) | 0.83 | ND (< 0.5) | 120 | ND (< 0.5) | 2.9 | ND (< 0.5) | CHLEA = 0.86 ; CHLFM = 3.1 ; Freon 11 = 5.9 |
| V8-3 | | 9/7/1995 | ND (< 10) | 40 | 320 | 130 | - | 11 | ND (< 10) | 700 | ND (< 10) | ND (< 10) | ND (< 10) | CHLFM = 15 |
| V8-3 | | 11/17/1995 | ND (< 0.5) | 37 | 240 | 120 | - | 7.1 | ND (< 0.5) | 230 | 6.4 | 74 | ND (< 0.5) | CHLFM = 10 ; Freon 11 = 21 ; MC = 1.2 |
| V8-3 | | 12/8/1995 | ND (< 5) | 49 | 1,000 | 160 | ND (< 5) | ND (< 5) | - | 1,300 | ND (< 5) | 74 | ND (< 10) | |
| V8-3 | | 3/7/1996 | ND (< 25) | ND (< 25) | 1,100 | 170 | 220 | ND (< 25) | ND (< 25) | 1,300 | ND (< 25) | 62 | ND (< 25) | |
| V8-3 | | 6/6/1996 | ND (< 12) | 63 | 1,200 | 150 | 230 | ND (< 12) | ND (< 12) | 1,300 | 35 | 160 | ND (< 12) | CBMA = 113 |
| V8-3 | | 9/12/1996 | ND (< 25) | 83 | 1,400 | 97 | 280 | ND (< 25) | ND (< 25) | 1,200 | ND (< 25) | 200 | ND (< 25) | CBMA = 108 ; CHLFM = 34 ; Freon 11 = 25 ; MC = 43 |
| V8-3 | | 12/13/1996 | ND (< 50) | ND (< 50) | 1,700 | 72 | 260 | ND (< 50) | - | 1,300 | ND (< 50) | 430 | ND (< 100) | |
| V8-3 | | 3/6/1997 | ND (< 25) | 65 | 1,000 | 64 | 160 | ND (< 25) | ND (< 25) | 850 | ND (< 25) | 240 | ND (< 25) | CBMA = 107 |
| V8-3 | | 6/6/1997 | ND (< 2.5) | 29 | 580 | 35 | 91 | ND (< 2.5) | ND (< 2.5) | 490 | 3.5 | 180 | ND (< 2.5) | CBMA = 98 ; Freon 11 = 7.5 |
| V8-3 | | 9/12/1997 | ND (< 10) | 110 | 770 | 43 | 140 | 21 | ND (< 10) | 530 | ND (< 10) | 340 | ND (< 10) | CBMA = 109 |
| V8-3 | | 12/4/1997 | ND (< 10) | 41 | 380 | 21 | 59 | ND (< 10) | ND (< 10) | 300 | ND (< 10) | 110 | ND (< 10) | CBMA = 102 |
| V8-3 | | 6/4/1998 | ND (< 5) | 24 | 170 | 15 | 29 | ND (< 5) | ND (< 5) | 190 | ND (< 5) | 76 | ND (< 5) | CBMA = 108 |
| V8-3 | | 12/10/1998 | ND (< 2.5) | 44.2 | 113 | 10.6 | 25.1 | ND (< 2.5) | ND (< 2.5) | 98.3 | ND (< 2.5) | 124 | ND (< 2.5) | CBMA = 112 |
| V8-3 | | 6/10/1999 | ND (< 12.5) | 42.7 | 75.1 | ND (< 12.5) | 16.9 | ND (< 12.5) | ND (< 12.5) | 57.2 | ND (< 12.5) | 72.8 | ND (< 12.5) | |
| V8-3 | | 12/10/1999 | ND (< 1.67) | 47.4 | 79.3 | 8.2 | 20.5 | ND (< 1.67) | ND (< 1.67) | 58.1 | ND (< 1.67) | 64.9 | ND (< 1.67) | |
| V8-3 | | 6/6/2000 | ND (< 0.50) | 6.4 | 4.5 | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | 7.6 | ND (< 0.50) | 10 | ND (< 0.50) | |
| V8-3 | | 12/5/2000 | ND (< 0.50) | 12 | 9.3 | 2.1 | 4.1 | ND (< 0.50) | ND (< 0.50) | 13 | ND (< 0.50) | 12 | ND (< 0.50) | |
| V8-3 | | 6/19/2001 | ND (< 0.50) | 37 | 32 | 11 | 17 | ND (< 0.50) | ND (< 0.50) | 35 | ND (< 0.50) | 39 | ND (< 0.50) | |
| V8-3 | | 6/25/2003 | ND (< 0.50) | 11 | 6.7 | 5.7 | 4.0 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 5.3 | ND (< 0.50) | |
| V8-3 | | 6/20/2005 | ND (< 2.0) | 230 | 6.5 | 9.9 | 5.7 | ND (< 2.0) | ND (< 2.0) | 32 | ND (< 2.0) | 4.4 | ND (< 2.0) | |
| V8-3 | | 6/20/2007 | ND (< 2.0) | 340 | 6.6 | 14 | 8.4 | ND (< 2.0) | ND (< 2.0) | 30 | ND (< 2.0) | 6.7 | ND (< 2.0) | |
| V8-3 | | 6/15/2009 | ND (< 2.5) | 260 | 6.0 | 16 | 6.9 | ND (< 2.5) | ND (< 2.5) | 24 | ND (< 2.5) | 5.4 | ND (< 2.5) | |
| V8-3 | Dup | 6/15/2009 | ND (< 0.50) | 280 | 6.5 | 18 | 9.8 | ND (< 0.50) | ND (< 0.50) | 27 | ND (< 0.50) | 5.8 | ND (< 0.50) | 1,2-DCPA = 1.4 ; BDCHLMA = 3.4 |
| V8-3 | | 6/14/2011 | ND (< 2.5) | 130 | 5.6 | 17 | 8.8 | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | 3.8 | ND (< 2.5) | |
| V8-3 | | 6/18/2013 | ND (< 2.5) | 210 | 3.1 | 12 | 7.0 | ND (< 2.5) | ND (< 2.5) | 13 | ND (< 2.5) | 2.7 | ND (< 2.5) | |
| V8-3 | | 6/10/2014 | ND (< 2.5) | 200 | 2.9 | 12 | 7.7 | ND (< 2.5) | ND (< 2.5) | 15 | ND (< 2.5) | 2.6 | ND (< 2.5) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-4 | | 12/13/1990 | 0.2 | 2.5 | 11 | 3.8 | 2.6 | 0.3 | 0.5 | - | - | 4.5 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 200 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V8-4 | | 4/19/1991 | ND (< 0.5) | 33 | 38 | 17 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3 |
| V8-4 | Dup | 4/19/1991 | ND (< 0.5) | 15 | 20 | 9 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 3 |
| V8-4 | | 7/26/1991 | ND (< 0.5) | 34 | 38 | 17 | - | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| V8-4 | | 10/8/1991 | ND (< 0.5) | 3.9 | 5.9 | 2.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.4 | ND (< 0.5) | CHLFM = 0.7 |
| V8-4 | | 12/5/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-4 | | 3/6/1992 | ND (< 0.5) | 1.6 | 5.6 | 1.6 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | CHLFM = 0.6 |
| V8-4 | | 6/10/1992 | ND (< 0.5) | 1.1 | 2.7 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | CHLFM = 0.5 |
| V8-4 | | 10/13/1992 | ND (< 0.5) | 49 | 53 | 38 | - | 0.7 | ND (< 0.5) | 18 | ND (< 0.5) | 1.2 | ND (< 0.5) | CHLFM = 1.9 |
| V8-4 | | 12/8/1992 | ND (< 5) | 55 | 55 | 41 | - | ND (< 5) | - | 23 | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 20 |
| V8-4 | | 3/4/1993 | ND (< 0.5) | ND (< 0.5) | 4.1 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | CHLFM = 0.9 |
| V8-4 | Dup | 3/4/1993 | ND (< 0.5) | ND (< 0.5) | 4.1 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | CHLFM = 0.9 |
| V8-4 | | 6/10/1993 | ND (< 0.5) | 7.4 | 9.7 | 8.2 | - | ND (< 0.5) | ND (< 0.5) | 8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-4 | | 9/10/1993 | ND (< 0.5) | 53 | 70 | 44 | ND (< 2.5) | 0.84 | ND (< 0.5) | 52 | ND (< 0.5) | 1.7 | ND (< 0.5) | CHLFM = 1.8 ; Freon 11 = 2.5 |
| V8-4 | | 12/13/1993 | ND (< 5) | ND (< 5) | 7.2 | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-4 | | 3/9/1994 | ND (< 0.5) | 0.77 | 4.4 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-4 | | 6/6/1994 | ND (< 0.5) | ND (< 0.5) | 3.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.75 | ND (< 0.5) | 2.2 | ND (< 0.5) | CHLFM = 0.51 |
| V8-4 | | 9/7/1994 | ND (< 0.5) | ND (< 0.5) | 3.2 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.74 | ND (< 0.5) | 2 | ND (< 0.5) | |
| V8-4 | | 12/8/1994 | ND (< 5) | 5.9 | 20 | ND (< 5) | - | ND (< 5) | - | 11 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-4 | | 3/6/1995 | ND (< 0.5) | 3.1 | 8.5 | 0.78 | - | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | 1.7 | ND (< 0.5) | |
| V8-4 | | 6/6/1995 | ND (< 0.5) | 8 | 27 | 3.3 | - | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | 1.8 | ND (< 0.5) | |
| V8-4 | | 9/7/1995 | ND (< 0.5) | 1.7 | 5.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | |
| V8-4 | | 12/6/1995 | ND (< 5) | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | - | 9.3 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-4 | | 3/6/1996 | ND (< 2.5) | 63 | 180 | 22 | 57 | 3.3 | ND (< 2.5) | 87 | ND (< 2.5) | 11 | ND (< 2.5) | CHLFM = 3.1 |
| V8-4 | | 6/11/1996 | ND (< 10) | 180 | 840 | 90 | 210 | ND (< 10) | ND (< 10) | 600 | ND (< 10) | 100 | ND (< 10) | CBMA = 105 ; CHLFM = 29 ; Freon 11 = 13 ; MC = 10 |
| V8-4 | | 9/11/1996 | ND (< 10) | 99 | 480 | 44 | 130 | ND (< 10) | ND (< 10) | 360 | ND (< 10) | 69 | ND (< 10) | CBMA = 107 ; CHLFM = 11 ; MC = 18 |
| V8-4 | | 12/12/1996 | ND (< 5) | 11 | 64 | ND (< 5) | 12 | ND (< 5) | - | 50 | ND (< 5) | 14 | ND (< 10) | |
| V8-4 | | 3/5/1997 | ND (< 2.5) | 36 | 150 | 7.4 | 22 | 3.8 | ND (< 2.5) | 78 | ND (< 2.5) | 49 | ND (< 2.5) | CBMA = 110 |
| V8-4 | | 6/5/1997 | ND (< 2.5) | 9.9 | 26 | ND (< 2.5) | 7.1 | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | 41 | ND (< 2.5) | CBMA = 92 |
| V8-4 | | 9/11/1997 | ND (< 2.5) | 110 | 270 | 17 | 52 | ND (< 2.5) | ND (< 2.5) | 140 | 3.2 | 67 | ND (< 2.5) | CBMA = 107 ; Freon 11 = 3.9 |
| V8-4 | | 12/4/1997 | ND (< 2.5) | 45 | 99 | 8.1 | 9.6 | ND (< 2.5) | ND (< 2.5) | 85 | 3.7 | 21 | ND (< 2.5) | CBMA = 96 |
| V8-4 | | 6/4/1998 | ND (< 2.5) | 79 | 130 | 11 | 23 | ND (< 2.5) | ND (< 2.5) | 90 | ND (< 2.5) | 110 | ND (< 2.5) | CBMA = 108 ; CHLFM = 3.2 |
| V8-4 | | 12/10/1998 | 0.524 | 8.61 | 15.2 | 1.23 | 3.37 | ND (< 0.5) | ND (< 0.5) | 10.6 | ND (< 0.5) | 5.86 | ND (< 0.5) | CBMA = 122 |
| V8-4 | | 6/10/1999 | ND (< 0.500) | 12.1 | 13.4 | 1.12 | 3.00 | ND (< 0.500) | ND (< 0.500) | 10.2 | ND (< 0.500) | 12.3 | ND (< 0.500) | |
| V8-4 | | 7/29/1999 | ND (< 0.500) | ND (< 0.500) | 2.53 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 0.902 | ND (< 0.500) | 1.71 | ND (< 0.500) | |
| V8-4 | | 12/10/1999 | ND (< 3.57) | 84.8 | 151 | 8.9 | 29.6 | ND (< 3.57) | ND (< 3.57) | 88.5 | ND (< 3.57) | 74 | ND (< 3.57) | |
| V8-4 | | 6/6/2000 | ND (< 0.50) | 7.4 | 8.8 | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | 6.1 | ND (< 0.50) | 9.4 | ND (< 0.50) | |
| V8-4 | | 12/5/2000 | ND (< 0.50) | 0.67 | 0.90 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.56 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-4 | | 6/19/2001 | ND (< 0.50) | 1.3 | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.95 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-4 | | 6/25/2003 | ND (< 0.50) | 5.8 | 4.2 | 0.78 | 1.5 | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | 5.5 | ND (< 0.50) | |
| V8-4 | | 6/20/2005 | ND (< 0.50) | 8.9 | 6.2 | 3.8 | 3.3 | ND (< 0.50) | ND (< 0.50) | 7.1 | ND (< 0.50) | 8.5 | ND (< 0.50) | |
| V8-4 | | 6/20/2007 | ND (< 0.50) | 24 | 2.8 | 2.6 | 2.5 | ND (< 0.50) | ND (< 0.50) | 5.4 | ND (< 0.50) | 5.5 | ND (< 0.50) | |
| V8-4 | | 6/10/2009 | ND (< 0.50) | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.77 | ND (< 0.50) | |
| V8-4 | | 6/14/2011 | ND (< 0.50) | 79 | 10 | 14 | 9.5 | ND (< 0.50) | ND (< 0.50) | 18 | ND (< 0.50) | 11 | ND (< 0.50) | |
| V8-4 | | 6/18/2013 | ND (< 0.50) | 42 | 7.1 | 12 | 9.5 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | 8.0 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-5 | | 12/13/1990 | 2 | 190 | 4 | 4 | 12 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 200 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 3.3 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| V8-5 | Dup | 12/13/1990 | 2.2 | 540 | 7.7 | 4.8 | 25 | 3 | 0.5 | 25 | 10 | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 25 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5.3 ; MC = 13 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| V8-5 | | 4/19/1991 | ND (< 0.5) | 470 | 12 | 6 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-5 | Dup | 4/19/1991 | 1 | 3 | 9.1 | 5.7 | 19 | 1.5 | - | - | - | 5 | 1.5 | 1,1,2,2-TCA = 1.5 ; 1,1,2-TCA = 1 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 1 ; 2-CVE = 2 ; BDCHLMA = 2 ; BRFM = 2.5 ; BRMA = 2.5 ; CHLEA = 2.5 ; CHLFM = 1.6 ; CHLMA = 2.5 ; cis-1,3-DCP = 1.5 ; CT = 1.5 ; DBCM = 2 ; EDB = 5 ; Freon 11 = 2.5 ; MC = 25 ; trans-1,3-DCP = 1.5 |
| V8-5 | Dup | 4/19/1991 | 1 | 3 | 9.1 | 5.7 | 19 | 1.5 | 0.5 | - | - | 5 | 1.5 | 1,1,2,2-TCA = 1.5 ; 1,1,2-TCA = 1 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 1 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 2 ; Acetone = 30 ; BDCHLMA = 2 ; Benzene = 0.5 ; BRFM = 2.5 ; BRMA = 2.5 ; CHLBZ = 0.5 ; CHLEA = 2.5 ; CHLFM = 1.6 ; CHLMA = 2.5 ; cis-1,3-DCP = 1.5 ; CT = 1.5 ; DBCM = 2 ; EDB = 5 ; Ethylbenzene = 0.5 ; Freon 11 = 2.5 ; MC = 25 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 1.5 ; Xylenes = 0.5 |
| V8-5 | | 7/24/1991 | ND (< 2.5) | 570 | 8 | ND (< 2.5) | ND (< 5) | ND (< 2.5) | ND (< 2.5) | 36 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 10/7/1991 | ND (< 2.5) | 500 | 7 | ND (< 2.5) | ND (< 5) | ND (< 2.5) | ND (< 2.5) | 37 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 12/5/1991 | ND (< 5) | 350 | ND (< 5) | ND (< 5) | ND (< 10) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-5 | | 3/5/1992 | ND (< 1) | 360 | 8.2 | 2.8 | ND (< 5) | ND (< 1) | ND (< 1) | 41 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1 |
| V8-5 | | 6/3/1992 | ND (< 0.5) | 190 | 5.9 | 4.3 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| V8-5 | | 10/12/1992 | ND (< 0.5) | 7.5 | 20 | 18 | - | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.6 ; Freon 11 = 6.9 |
| V8-5 | | 12/9/1992 | ND (< 5) | 510 | 8.7 | ND (< 5) | ND (< 17) | ND (< 5) | - | 46 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-5 | | 3/4/1993 | ND (< 2.5) | 630 | 8 | ND (< 2.5) | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 35 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 6/9/1993 | ND (< 2.5) | 500 | 9 | ND (< 2.5) | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 31 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 9/8/1993 | ND (< 0.5) | 12 | 29 | 22 | - | ND (< 0.5) | ND (< 0.5) | 9.2 | ND (< 0.5) | 0.55 | ND (< 0.5) | CHLEA = 0.6 ; CHLFM = 2.5 ; Freon 11 = 7.8 |
| V8-5 | | 12/6/1993 | ND (< 5) | 500 | 6.1 | ND (< 5) | - | ND (< 5) | - | 37 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-5 | | 3/9/1994 | ND (< 2.5) | 510 | 18 | 11 | - | ND (< 2.5) | ND (< 2.5) | 37 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 6/3/1994 | ND (< 2.5) | 630 | 9.6 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 35 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | Dup | 6/3/1994 | ND (< 2.5) | 670 | 9.8 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 33 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 9/6/1994 | ND (< 2.5) | 570 | 12 | 3.6 | - | 2.5 | ND (< 2.5) | 32 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 1,1,2-TCA = 3.6 |
| V8-5 | | 12/6/1994 | ND (< 25) | 570 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | 36 | ND (< 25) | ND (< 25) | ND (< 50) | |
| V8-5 | | 3/6/1995 | ND (< 2.5) | 540 | 7.2 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 41 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 6/8/1995 | ND (< 2.5) | 470 | 5.4 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 23 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | Dup | 6/8/1995 | ND (< 2.5) | 480 | 5.7 | ND (< 2.5) | - | ND (< 2.5) | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 9/8/1995 | ND (< 12) | 420 | 15 | ND (< 12) | - | ND (< 12) | ND (< 12) | 26 | ND (< 12) | ND (< 12) | ND (< 12) | |
| V8-5 | | 12/8/1995 | ND (< 5) | 330 | 46 | 8.6 | ND (< 50) | ND (< 5) | - | 84 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-5 | | 3/7/1996 | ND (< 2.5) | 140 | 12 | 5.8 | 5.6 | ND (< 2.5) | ND (< 2.5) | 14 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 6/6/1996 | ND (< 5) | 380 | 7 | ND (< 5) | 16 | ND (< 5) | ND (< 5) | 19 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 115 |
| V8-5 | | 9/13/1996 | ND (< 5) | 360 | 9.1 | ND (< 5) | 22 | ND (< 5) | ND (< 5) | 25 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 100 |
| V8-5 | | 12/13/1996 | ND (< 10) | 220 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | - | 20 | ND (< 10) | ND (< 10) | ND (< 20) | |
| V8-5 | | 3/5/1997 | ND (< 2.5) | 290 | 9.3 | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 105 |
| V8-5 | | 6/9/1997 | ND (< 5) | 170 | 6.3 | ND (< 5) | 6.3 | ND (< 5) | ND (< 5) | 10 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 93 |
| V8-5 | | 9/11/1997 | ND (< 2.5) | 280 | 8.5 | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 107 |
| V8-5 | | 12/4/1997 | ND (< 5) | 470 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 20 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 96 |
| V8-5 | | 6/4/1998 | ND (< 12) | 340 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 105 |
| V8-5 | | 12/10/1998 | ND (< 5) | 242 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 10.1 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 121 |
| V8-5 | | 6/10/1999 | ND (< 10.0) | 197 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-5 | | 12/14/1999 | ND (< 1) | 40.2 | 2.07 | 10.7 | 6.3 | ND (< 1) | ND (< 1) | 1.49 | ND (< 1) | ND (< 1) | ND (< 1) | |
| V8-5 | Dup | 12/14/1999 | ND (< 2.5) | 39.1 | ND (< 2.5) | 9.44 | 6.54 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | | 6/6/2000 | ND (< 2.5) | 190 | ND (< 2.5) | ND (< 2.5) | 4.1 | ND (< 2.5) | ND (< 2.5) | 3.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | Dup | 6/6/2000 | ND (< 5.0) | 190 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| V8-5 | | 12/5/2000 | ND (< 2.5) | 220 | ND (< 2.5) | ND (< 2.5) | 6.4 | ND (< 2.5) | ND (< 2.5) | 6.4 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-5 | | 6/19/2001 | ND (< 2.5) | 180 | ND (< 2.5) | ND (< 2.5) | 5.0 | ND (< 2.5) | ND (< 2.5) | 4.1 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-5 | Dup | 6/19/2001 | ND (< 2.5) | 170 | ND (< 2.5) | ND (< 2.5) | 5.1 | ND (< 2.5) | ND (< 2.5) | 3.6 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-5 | | 6/26/2003 | ND (< 2.5) | 170 | ND (< 2.5) | 4.5 | 6.9 | ND (< 2.5) | ND (< 2.5) | 3.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-5 | Dup | 6/26/2003 | ND (< 1.0) | 100 | ND (< 1.0) | 1.7 | 2.6 | ND (< 1.0) | ND (< 1.0) | 2.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| V8-5 | | 6/20/2005 | ND (< 0.50) | 3.8 | 1.3 | 12 | 5.5 | ND (< 0.50) | ND (< 0.50) | 0.60 | ND (< 0.50) | 0.72 | ND (< 0.50) | |
| V8-5 | | 6/27/2006 | ND (< 0.50) | 4.2 | ND (< 0.50) | 16 | 4.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/20/2007 | ND (< 0.50) | 3.2 | 0.62 | 16 | 6.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/12/2008 | ND (< 0.50) | 5.8 | 0.51 | 9.6 | 5.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/11/2009 | ND (< 0.50) | 4.5 | 0.56 | 14 | 9.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/8/2010 | ND (< 0.50) | 4.1 | ND (< 0.50) | 9.5 | 8.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/14/2011 | ND (< 0.50) | 3.3 | 0.77 | 11 | 8.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/12/2012 | ND (< 0.50) | 3.8 | ND (< 0.50) | 11 | 9.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/18/2013 | ND (< 0.50) | 3.4 | ND (< 0.50) | 12 | 9.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-5 | | 6/11/2014 | ND (< 0.50) | 4.1 | 0.52 | 18 | 14 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V8-6 | | 12/20/1990 | 0.2 | 1 | 1.6 | 0.4 | 1.9 | 0.3 | 0.5 | - | - | 1.1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V8-6 | Dup | 12/20/1990 | 0.2 | 1.1 | 1.3 | 3 | 0.8 | 2 | 0.5 | - | 2 | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 3 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 5 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 2 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V8-6 | | 7/24/1991 | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Benzene = 1.1 ; Toluene = 1.5 ; Xylenes = 1.5 |
| V8-6 | | 12/4/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-6 | | 6/4/1992 | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-6 | Dup | 6/4/1992 | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-6 | | 12/9/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-6 | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-6 | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-6 | | 6/3/1994 | ND (< 0.5) | 1.5 | 2.4 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 3.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-6 | | 12/6/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-6 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-6 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-6 | | 6/6/1996 | ND (< 0.5) | 0.61 | 0.68 | ND (< 0.5) | 0.84 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| V8-6 | | 12/13/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-6 | | 12/4/1997 | ND (< 0.5) | 1.6 | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 95 |
| V8-6 | | 12/10/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| V8-6 | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-6 | | 6/25/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-6 | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-6 | | 6/21/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-6 | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-6 | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-6 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-7 | | 12/12/1990 | 2 | 190 | 24 | 11 | 11 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 200 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| V8-7 | | 4/11/1991 | ND (< 3) | 470 | 41 | 16 | ND (< 5) | ND (< 3) | ND (< 3) | 12 | ND (< 3) | ND (< 3) | ND (< 3) | |
| V8-7 | | 7/26/1991 | ND (< 2.5) | 450 | 48 | 20 | ND (< 5) | ND (< 2.5) | ND (< 2.5) | 13 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-7 | | 11/12/1991 | ND (< 2.5) | 470 | 46 | 18 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 11 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-7 | | 12/6/1991 | ND (< 5) | 450 | 42 | 24 | ND (< 25) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-7 | | 3/5/1992 | ND (< 0.5) | 160 | 14 | 6.5 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.5 |
| V8-7 | | 6/5/1992 | ND (< 0.5) | 250 | 17 | 10 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 6.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| V8-7 | | 10/12/1992 | ND (< 1) | 340 | 33 | 17 | ND (< 5) | ND (< 1) | ND (< 1) | 13 | ND (< 1) | ND (< 1) | ND (< 1) | |
| V8-7 | | 12/8/1992 | ND (< 5) | 340 | 35 | 22 | ND (< 12) | ND (< 5) | - | 14 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-7 | | 3/4/1993 | ND (< 1) | 480 | 41 | 24 | ND (< 5) | ND (< 1) | ND (< 1) | 11 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.2 |
| V8-7 | | 6/10/1993 | ND (< 0.5) | 55 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-7 | | 9/9/1993 | ND (< 1) | 290 | 28 | 22 | ND (< 5) | ND (< 1) | ND (< 1) | 8.2 | ND (< 1) | ND (< 1) | ND (< 1) | |
| V8-7 | | 12/6/1993 | ND (< 5) | 280 | 16 | 18 | - | ND (< 5) | - | 7.2 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-7 | | 3/8/1994 | ND (< 0.5) | 54 | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.92 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-7 | | 6/3/1994 | ND (< 0.5) | 100 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| V8-7 | Dup | 6/3/1994 | ND (< 0.5) | 100 | 0.69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| V8-7 | | 9/6/1994 | ND (< 0.5) | 110 | ND (< 0.5) | 0.83 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| V8-7 | | 12/6/1994 | ND (< 5) | 110 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-7 | | 3/6/1995 | ND (< 0.5) | 110 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | BDCHLMA = 0.63 ; CHLFM = 11 |
| V8-7 | | 6/7/1995 | ND (< 0.5) | 78 | 24 | 2.4 | - | ND (< 0.5) | ND (< 0.5) | 23 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 7.5 |
| V8-7 | Dup | 6/7/1995 | ND (< 0.5) | 72 | 22 | 2.3 | - | ND (< 0.5) | ND (< 0.5) | 22 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 7.4 |
| V8-7 | | 9/7/1995 | ND (< 2.5) | 120 | 41 | 3 | - | ND (< 2.5) | ND (< 2.5) | 29 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLFM = 9 |
| V8-7 | | 12/6/1995 | ND (< 5) | 130 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 6.6 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 10 |
| V8-7 | | 3/6/1996 | ND (< 2.5) | 120 | 120 | 16 | 120 | 2.8 | ND (< 2.5) | 140 | ND (< 2.5) | 18 | ND (< 2.5) | CHLFM = 15 |
| V8-7 | | 6/7/1996 | ND (< 12) | 230 | 1,300 | 140 | 330 | ND (< 12) | ND (< 12) | 1,400 | ND (< 12) | 140 | ND (< 12) | CBMA = 108 ; Freon 11 = 17 ; MC = 22 |
| V8-7 | Dup | 6/7/1996 | ND (< 12) | 230 | 1,300 | 150 | 320 | ND (< 12) | ND (< 12) | 1,400 | ND (< 12) | 140 | ND (< 12) | CBMA = 108 ; Freon 11 = 18 ; MC = 21 |
| V8-7 | | 9/12/1996 | ND (< 1) | 40 | 68 | 14 | 19 | ND (< 1) | ND (< 1) | 100 | ND (< 1) | 7.2 | ND (< 1) | CBMA = 106 ; CHLFM = 6.7 ; Freon 11 = 2 ; MC = 1.3 |
| V8-7 | | 3/6/1997 | ND (< 2.5) | 220 | 66 | 2.9 | 9.6 | ND (< 2.5) | ND (< 2.5) | 57 | ND (< 2.5) | 14 | ND (< 2.5) | CBMA = 113 ; CHLFM = 4 |
| V8-7 | | 6/5/1997 | ND (< 5) | 88 | 48 | 11 | 7.5 | ND (< 5) | ND (< 5) | 110 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 92 |
| V8-7 | Dup | 6/5/1997 | ND (< 5) | 110 | 61 | 11 | 8.1 | ND (< 5) | ND (< 5) | 120 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 104 ; CHLFM = 5.9 |
| V8-7 | | 9/11/1997 | ND (< 5) | 310 | 520 | 58 | 130 | ND (< 5) | ND (< 5) | 460 | ND (< 5) | 40 | ND (< 5) | CBMA = 105 |
| V8-7 | | 12/4/1997 | ND (< 10) | 230 | 500 | 41 | 120 | ND (< 10) | ND (< 10) | 380 | ND (< 10) | 97 | ND (< 10) | CBMA = 96 |
| V8-7 | | 6/5/1998 | ND (< 5) | 120 | 44 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 63 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 109 |
| V8-7 | | 12/11/1998 | ND (< 5) | 190 | 290 | 17.2 | NA | ND (< 5) | ND (< 5) | 204 | ND (< 5) | 94.1 | ND (< 5) | CBMA = 114 |
| V8-7 | Dup | 12/11/1998 | ND (< 10) | 211 | 301 | 16.1 | NA | ND (< 10) | ND (< 10) | 209 | ND (< 10) | 99.6 | ND (< 10) | CBMA = 109 |
| V8-7 | | 6/10/1999 | ND (< 12.5) | 177 | 165 | ND (< 12.5) | 32.4 | ND (< 12.5) | ND (< 12.5) | 140 | ND (< 12.5) | 78.2 | ND (< 12.5) | |
| V8-7 | Dup | 6/10/1999 | ND (< 10.0) | 180 | 157 | 11.7 | 32.7 | ND (< 10.0) | ND (< 10.0) | 132 | ND (< 10.0) | 73.7 | ND (< 10.0) | |
| V8-7 | | 12/10/1999 | ND (< 5) | 205 | 187 | 12.8 | 43.2 | ND (< 5) | ND (< 5) | 132 | ND (< 5) | 78.4 | ND (< 5) | |
| V8-7 | | 6/6/2000 | ND (< 2.5) | 240 | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 11 | ND (< 2.5) | 5.2 | ND (< 2.5) | |
| V8-7 | | 12/5/2000 | ND (< 5.0) | 250 | 120 | 8.5 | 33 | ND (< 5.0) | ND (< 5.0) | 100 | ND (< 5.0) | 86 | ND (< 5.0) | |
| V8-7 | Dup | 12/5/2000 | ND (< 10) | 270 | 120 | ND (< 10) | 33 | ND (< 10) | ND (< 10) | 110 | ND (< 10) | 79 | ND (< 10) | |
| V8-7 | | 6/19/2001 | ND (< 5.0) | 170 | 46 | ND (< 5.0) | 6.6 | ND (< 5.0) | ND (< 5.0) | 53 | ND (< 5.0) | 46 | ND (< 5.0) | |
| V8-7 | | 6/26/2002 | ND (< 1.0) | 180 | 26 | 4.6 | 10 | 1.8 | ND (< 1.0) | 45 | ND (< 1.0) | 33 | ND (< 1.0) | |
| V8-7 | Dup | 6/26/2002 | ND (< 1.0) | 190 | 28 | 4.8 | 10 | 1.8 | ND (< 1.0) | 46 | ND (< 1.0) | 31 | ND (< 1.0) | |
| V8-7 | | 6/26/2003 | ND (< 2.5) | 190 | 26 | 7.4 | 10 | ND (< 2.5) | ND (< 2.5) | 41 | ND (< 2.5) | 19 | ND (< 2.5) | |
| V8-7 | | 8/31/2004 | ND (< 2.0) | 210 | 14 | 2.7 | 7.0 | ND (< 2.0) | ND (< 2.0) | 33 | ND (< 2.0) | 15 | ND (< 2.0) | |
| V8-7 | | 8/31/2004 | ND (< 2.0) | 210 | 14 | 3.4 | 6.1 | ND (< 2.0) | ND (< 2.0) | 27 | ND (< 2.0) | 17 | ND (< 2.0) | |
| V8-7 | | 6/20/2005 | ND (< 2.0) | 370 | 30 | 5.9 | 10 | ND (< 2.0) | ND (< 2.0) | 37 | ND (< 2.0) | 14 | ND (< 2.0) | |
| V8-7 | | 6/27/2006 | ND (< 2.0) | 310 | 10 | 2.4 | 4.1 | ND (< 2.0) | ND (< 2.0) | 16 | ND (< 2.0) | 9.4 | ND (< 2.0) | |
| V8-7 | | 6/20/2007 | ND (< 2.0) | 260 | 8.6 | 2.7 | 3.9 | ND (< 2.0) | ND (< 2.0) | 13 | ND (< 2.0) | 8.2 | ND (< 2.0) | |
| V8-7 | | 6/11/2008 | ND (< 2.0) | 180 | 8.3 | 4.1 | 4.5 | ND (< 2.0) | ND (< 2.0) | 15 | ND (< 2.0) | 7.8 | ND (< 2.0) | |
| V8-7 | | 6/11/2009 | ND (< 0.50) | 390 | 7.6 | 7.6 | 5.9 | ND (< 0.50) | ND (< 0.50) | 18 | ND (< 0.50) | 5.0 | ND (< 0.50) | |
| V8-7 | | 6/8/2010 | ND (< 10) | 1,100 | ND (< 10) | 13 | ND (< 10) | ND (< 10) | ND (< 10) | 21 | ND (< 10) | ND (< 10) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-7 | | 6/14/2011 | ND (< 10) | 1,300 | 11 | 14 | ND (< 10) | ND (< 10) | ND (< 10) | 20 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-7 | | 6/12/2012 | ND (< 10) | 1,000 | ND (< 10) | 12 | ND (< 10) | ND (< 10) | ND (< 10) | 15 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-7 | | 6/18/2013 | ND (< 2.5) | 48 | 7.0 | 15 | 3.7 | ND (< 2.5) | ND (< 2.5) | 260 | ND (< 2.5) | 3.1 | 34 | |
| V8-7 | | 6/11/2014 | ND (< 2.5) | 160 | ND (< 2.5) | 8.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 280 | ND (< 2.5) | 7.0 | 34 | |
| | | | | | | | | | | | | | | |
| V8-8 | | 12/18/1990 | 2 | 650 | 11 | 4 | 4.9 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; BDCHLMA = 4 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2.6 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Freon 11 = 5 ; MC = 50 ; trans-1,3-DCP = 3 |
| V8-8 | | 2/6/1991 | 20 | 1,400 | 30 | 40 | 30 | 30 | 0.5 | - | - | 100 | 30 | 1,1,2,2-TCA = 30 ; 1,1,2-TCA = 20 ; 1,2-DCPA = 20 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 40 ; Acetone = 30 ; BDCHLMA = 40 ; Benzene = 0.5 ; BRFM = 50 ; BRMA = 50 ; CHLBZ = 0.5 ; CHLEA = 50 ; CHLFM = 20 ; CHLMA = 50 ; cis-1,3-DCP = 30 ; CT = 30 ; DBCM = 40 ; EDB = 100 ; Ethylbenzene = 0.5 ; Freon 11 = 50 ; MC = 500 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 30 ; Xylenes = 0.5 |
| V8-8 | | 4/12/1991 | ND (< 50) | 2,600 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 10) | 50 | ND (< 50) | ND (< 50) | ND (< 50) | |
| V8-8 | | 7/25/1991 | ND (< 12) | 1,600 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 120 | ND (< 12) | ND (< 12) | ND (< 12) | |
| V8-8 | Dup | 7/25/1991 | ND (< 12) | 1,500 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 120 | ND (< 12) | ND (< 12) | ND (< 12) | |
| V8-8 | | 10/8/1991 | ND (< 12) | 1,400 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 120 | ND (< 12) | ND (< 12) | ND (< 12) | |
| V8-8 | | 12/11/1991 | ND (< 5) | 1,500 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | 25 | |
| V8-8 | | 3/4/1992 | ND (< 10) | 540 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 86 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-8 | | 6/9/1992 | ND (< 5) | 2,500 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 35 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-8 | | 10/13/1992 | ND (< 1) | 320 | 5 | 2.6 | ND (< 5) | ND (< 1) | ND (< 1) | 60 | ND (< 1) | ND (< 1) | ND (< 1) | |
| V8-8 | | 12/7/1992 | ND (< 5) | 220 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-8 | | 3/5/1993 | ND (< 1) | 470 | 3.6 | 1.2 | ND (< 5) | ND (< 1) | ND (< 1) | 31 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.6 |
| V8-8 | Dup | 3/5/1993 | ND (< 1) | 440 | 3 | 1.2 | ND (< 5) | ND (< 1) | ND (< 1) | 32 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.6 |
| V8-8 | | 6/10/1993 | ND (< 1) | 440 | 2.2 | 1 | ND (< 1) | ND (< 1) | ND (< 1) | 42 | ND (< 1) | ND (< 1) | ND (< 1) | |
| V8-8 | | 9/8/1993 | ND (< 1) | 330 | 3.7 | 2.8 | ND (< 5) | ND (< 1) | ND (< 1) | 52 | ND (< 1) | 1.2 | ND (< 1) | |
| V8-8 | | 12/8/1993 | ND (< 12) | 1,500 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | - | 22 | ND (< 12) | ND (< 12) | ND (< 25) | |
| V8-8 | | 3/8/1994 | ND (< 10) | 2,400 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| V8-8 | | 6/2/1994 | ND (< 2.5) | 650 | 3.1 | 3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 56 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | | 9/6/1994 | ND (< 5) | 1,700 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 27 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-8 | | 12/6/1994 | ND (< 50) | 1,200 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | - | 50 | ND (< 50) | ND (< 50) | ND (< 100) | |
| V8-8 | Dup | 12/6/1994 | ND (< 25) | 1,300 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | - | 68 | ND (< 25) | ND (< 25) | ND (< 50) | |
| V8-8 | | 3/6/1995 | ND (< 0.5) | 27 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.61 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.98 |
| V8-8 | | 6/8/1995 | ND (< 0.5) | 48 | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| V8-8 | | 9/7/1995 | ND (< 0.5) | 44 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.8 |
| V8-8 | | 12/6/1995 | ND (< 5) | 90 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-8 | | 3/6/1996 | ND (< 0.5) | 16 | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.51 |
| V8-8 | | 6/10/1996 | ND (< 1) | 61 | 1.7 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 3.6 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 114 ; CHLFM = 1.8 |
| V8-8 | | 9/11/1996 | ND (< 1) | 47 | 2.1 | ND (< 1) | ND (< 1) | ND (< 1) | ND (< 1) | 3.5 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 109 ; CHLFM = 2.6 ; MC = 1.1 |
| V8-8 | | 12/11/1996 | ND (< 5) | 160 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | 13 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-8 | | 3/5/1997 | ND (< 0.5) | 57 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; CHLFM = 1.7 |
| V8-8 | Dup | 3/5/1997 | ND (< 0.5) | 59 | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 4.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 ; CHLFM = 1.8 |
| V8-8 | | 6/5/1997 | ND (< 1) | 100 | 3.2 | 2.3 | 1.1 | ND (< 1) | ND (< 1) | 7.4 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 99 ; CHLFM = 1.8 |
| V8-8 | | 9/11/1997 | ND (< 1) | 110 | 4.1 | 4.8 | 3.7 | ND (< 1) | ND (< 1) | 8.7 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 107 ; CHLFM = 1.5 |
| V8-8 | Dup | 9/11/1997 | ND (< 1) | 110 | 2.9 | 4.9 | 3.7 | ND (< 1) | ND (< 1) | 7 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 105 ; CHLFM = 1.5 |
| V8-8 | | 12/4/1997 | ND (< 2.5) | 92 | 3.5 | 4.9 | 3.8 | ND (< 2.5) | ND (< 2.5) | 4.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 97 |
| V8-8 | | 6/5/1998 | ND (< 0.5) | 20 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| V8-8 | | 12/11/1998 | ND (< 2.5) | 43.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 105 |
| V8-8 | | 6/10/1999 | ND (< 1.00) | 21.4 | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | ND (< 1.00) | |
| V8-8 | | 7/29/1999 | ND (< 5.00) | 107 | ND (< 5.00) | 14.1 | 8.14 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| V8-8 | | 12/10/1999 | ND (< 1.25) | 84 | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | 2.01 | ND (< 1.25) | ND (< 2.5) | ND (< 1.25) | |
| V8-8 | | 6/6/2000 | ND (< 0.50) | 24 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-8 | | 12/5/2000 | ND (< 2.5) | 100 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-8 | | 6/19/2001 | ND (< 2.5) | 64 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-8 | | 6/26/2003 | ND (< 2.5) | 240 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 12 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-8 | | 6/20/2005 | ND (< 1.0) | 120 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 4.0 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| V8-8 | | 4/7/2006 | ND (< 2.0) | 150 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | - | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | - | |
| V8-8 | | 6/27/2006 | ND (< 1.0) | 110 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 1.5 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| V8-8 | | 6/21/2007 | ND (< 1.0) | 160 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 4.0 | 2.2 | ND (< 1.0) | ND (< 1.0) | |
| V8-8 | | 8/14/2007 | ND (< 2.0) | 220 | 9.7 | 3.4 | 4.8 | - | ND (< 2.0) | 16 | ND (< 2.0) | 7.9 | - | |
| V8-8 | | 6/11/2008 | ND (< 1.0) | 170 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 7.3 | 6.6 | ND (< 1.0) | ND (< 1.0) | |
| V8-8 | | 6/11/2009 | ND (< 2.5) | 150 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 5.5 | 5.6 | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | | 6/8/2010 | ND (< 2.5) | 140 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.7 | 3.9 | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | | 6/14/2011 | ND (< 2.5) | 130 | ND (< 2.5) | 3.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.8 | 2.7 | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | | 6/12/2012 | ND (< 2.5) | 140 | ND (< 2.5) | 3.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 3.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | | 6/18/2013 | ND (< 2.5) | 130 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 4.5 | 3.1 | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | | 6/11/2014 | ND (< 2.5) | 270 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-8 | Dup | 6/11/2014 | ND (< 2.5) | 260 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 9.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| | | | | | | | | | | | | | | |
| V8-8X | | 12/16/1999 | ND (< 2.5) | 75 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-8X | | 8/16/2000 | ND (< 2.0) | 94 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 8.0) | ND (< 2.0) | |
| V8-8X | | 12/5/2000 | ND (< 1.0) | 69 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| V8-8X | | 6/22/2001 | ND (< 2.5) | 84 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| V8-8X | Dup | 6/22/2001 | ND (< 5.0) | 110 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 20) | ND (< 5.0) | |
| V8-8X | | 6/27/2003 | ND (< 2.5) | 80 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V8-8X | Dup | 6/27/2003 | ND (< 0.50) | 97 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-8X | | 6/29/2005 | ND (< 2.0) | 180 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | 3.2 | ND (< 2.0) | ND (< 2.0) | ND (< 2.0) | |
| V8-8X | | 7/6/2007 | ND (< 0.50) | 15 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.3 | 5.0 | ND (< 0.50) | ND (< 0.50) | |
| V8-8X | Dup | 7/6/2007 | ND (< 0.50) | 13 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 6.3 | 4.9 | ND (< 0.50) | 0.52 | |
| V8-8X | | 6/15/2009 | ND (< 0.50) | 170 | ND (< 0.50) | 3.3 | 0.63 | ND (< 0.50) | ND (< 0.50) | 4.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1,2-DCPA = 0.81 |
| V8-8X | | 6/14/2011 | 0.77 | 85 | ND (< 0.50) | 2.1 | 1.4 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-8X | Dup | 6/14/2011 | ND (< 0.50) | 69 | ND (< 0.50) | 1.9 | 1.1 | ND (< 0.50) | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-8X | | 6/18/2013 | ND (< 0.50) | 180 | ND (< 0.50) | 5.1 | 2.7 | ND (< 0.50) | ND (< 0.50) | 3.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V8-13B | | 12/13/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,2,4-TCB = 10 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; Xylenes = 0.5 |
| V8-13B | | 2/6/1991 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Freon 11 = 0.5 ; MC = 5 ; trans-1,3-DCP = 0.3 |
| V8-13B | | 4/11/1991 | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 7/26/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 11/1/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 12/6/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-13B | | 3/5/1992 | ND (< 0.5) | 2.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 6/9/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | Dup | 6/9/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 10/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 12/7/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-13B | | 3/5/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 9/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-13B | | 3/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 6/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 9/6/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 12/6/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-13B | | 6/2/1995 | ND (< 0.5) | 0.97 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-13B | | 12/6/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-13B | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| V8-13B | | 1/10/1997 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-13B | | 12/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-13B | | 12/11/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 117 |
| V8-13B | | 12/10/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| V8-13B | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-13B | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-13B | Dup | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-13B | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/20/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/11/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 8/30/2011 | ND (< 0.50) | 0.90 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/18/2013 | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-13B | | 6/11/2014 | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V8-14X | | 12/13/1990 | 2 | 990 | 4 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 3.8 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| V8-14X | | 2/6/1991 | 2 | 7.2 | 180 | 25 | 44 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; BDCHLMA = 4 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2.3 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Freon 11 = 5 ; MC = 50 ; trans-1,3-DCP = 3 |
| V8-14X | | 4/19/1991 | ND (< 3) | 1,300 | 17 | ND (< 3) | ND (< 3) | ND (< 3) | ND (< 3) | 15 | ND (< 3) | ND (< 3) | ND (< 3) | |
| V8-14X | Dup | 4/19/1991 | ND (< 3) | 1,300 | 17 | ND (< 3) | ND (< 3) | ND (< 3) | ND (< 3) | 14 | ND (< 3) | ND (< 3) | ND (< 3) | |
| V8-14X | | 7/26/1991 | ND (< 5) | 1,700 | 72 | ND (< 5) | ND (< 25) | ND (< 5) | ND (< 5) | 42 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-14X | | 10/7/1991 | ND (< 5) | 1,800 | 8 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 7 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-14X | | 12/5/1991 | ND (< 10) | 2,000 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | - | - | ND (< 10) | ND (< 10) | ND (< 20) | |
| V8-14X | | 3/5/1992 | ND (< 5) | 1,800 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-14X | | 6/10/1992 | ND (< 5) | 1,700 | 37 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 12 | ND (< 5) | ND (< 5) | ND (< 5) | |
| V8-14X | | 2/10/1993 | ND (< 50) | ND (< 50) | 1,200 | 160 | - | ND (< 50) | - | 1,100 | ND (< 50) | - | ND (< 100) | |
| V8-14X | | 5/25/1993 | ND (< 5) | 60 | 1,300 | 180 | ND (< 5) | ND (< 5) | ND (< 5) | 1,400 | ND (< 5) | 120 | ND (< 5) | Freon 11 = 24 |
| V8-14X | | 8/24/1993 | ND (< 5) | 47 | 1,400 | 180 | ND (< 25) | ND (< 5) | ND (< 5) | 1,300 | ND (< 5) | 170 | ND (< 5) | Freon 11 = 17 |
| V8-14X | | 9/14/1993 | ND (< 5) | 63 | 2,000 | 220 | ND (< 25) | ND (< 5) | ND (< 5) | 1,700 | ND (< 5) | 200 | ND (< 5) | Freon 11 = 16 |
| V8-14X | Dup | 9/14/1993 | ND (< 5) | 49 | 2,000 | 180 | ND (< 25) | ND (< 5) | ND (< 5) | 1,700 | ND (< 5) | 160 | ND (< 5) | Freon 11 = 9.1 |
| V8-14X | | 1/25/1994 | ND (< 5) | 110 | 2,200 | 280 | 5.5 | ND (< 5) | - | 2,200 | 5.5 | 320 | ND (< 10) | |
| V8-14X | | 3/8/1994 | ND (< 10) | 130 | 3,100 | 300 | - | ND (< 10) | ND (< 10) | 2,500 | ND (< 10) | 480 | ND (< 10) | |
| V8-14X | Dup | 3/8/1994 | ND (< 10) | 150 | 3,500 | 290 | - | 15 | ND (< 10) | 3,000 | ND (< 10) | 380 | ND (< 10) | |
| V8-14X | | 6/7/1994 | ND (< 25) | 140 | 4,600 | 190 | - | ND (< 25) | ND (< 25) | 2,800 | ND (< 25) | 560 | ND (< 25) | MC = 64 |
| V8-14X | Dup | 6/7/1994 | ND (< 25) | 160 | 3,800 | 240 | - | ND (< 25) | ND (< 25) | 2,500 | ND (< 25) | 760 | ND (< 25) | MC = 68 |
| V8-14X | | 9/14/1994 | ND (< 10) | 180 | 3,600 | 160 | - | 15 | ND (< 10) | 2,000 | ND (< 10) | 980 | ND (< 10) | 1,1,2-TCA = 15 ; MC = 17 |
| V8-14X | | 10/17/1994 | ND (< 10) | 200 | 3,100 | 140 | - | ND (< 10) | ND (< 10) | 1,800 | ND (< 10) | 910 | ND (< 10) | |
| V8-14X | | 11/15/1994 | ND (< 12) | 200 | 2,800 | 100 | - | ND (< 12) | ND (< 12) | 1,400 | ND (< 12) | 680 | ND (< 12) | |
| V8-14X | | 12/16/1994 | ND (< 10) | 260 | 2,100 | 62 | - | ND (< 10) | - | 1,000 | ND (< 10) | 760 | ND (< 20) | Acetone = 31 |
| V8-14X | | 3/6/1995 | ND (< 25) | 260 | 1,800 | 30 | - | ND (< 25) | ND (< 25) | 760 | ND (< 25) | 620 | ND (< 25) | |
| | | | | | | | | | | | | | | |
| V8-22 | | 4/19/1991 | ND (< 0.5) | ND (< 0.5) | 4 | 2 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-22 | | 7/25/1991 | ND (< 0.5) | ND (< 0.5) | 15 | 4.2 | - | ND (< 0.5) | ND (< 0.5) | 8.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 ; Freon 11 = 0.5 |
| V8-22 | | 10/7/1991 | ND (< 0.5) | ND (< 0.5) | 3.5 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V8-22 | | 12/9/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-22 | | 3/5/1992 | ND (< 5) | ND (< 5) | 1,100 | 340 | ND (< 25) | ND (< 5) | ND (< 5) | 1,700 | ND (< 5) | 9 | ND (< 5) | CHLFM = 15 ; Freon 11 = 30 |
| V8-22 | | 6/8/1992 | ND (< 0.5) | 0.7 | 110 | 19 | ND (< 2.5) | 0.5 | ND (< 0.5) | 140 | ND (< 0.5) | 1.7 | ND (< 0.5) | CHLFM = 3 ; Freon 11 = 1 |
| V8-22 | | 10/13/1992 | ND (< 25) | ND (< 25) | 6,200 | 450 | ND (< 100) | ND (< 25) | ND (< 25) | 4,500 | ND (< 25) | 610 | ND (< 25) | |
| V8-22 | | 12/3/1992 | ND (< 500) | ND (< 500) | 5,000 | ND (< 500) | ND (< 500) | ND (< 500) | - | - | ND (< 500) | ND (< 500) | ND (< 1,000) | |
| V8-22 | | 3/5/1993 | ND (< 0.5) | ND (< 0.5) | 47 | 3.2 | - | ND (< 0.5) | ND (< 0.5) | 21 | ND (< 0.5) | 0.7 | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V8-22 | | 6/11/1993 | ND (< 0.5) | 0.6 | 160 | 9.5 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 140 | ND (< 0.5) | 27 | ND (< 0.5) | Freon 11 = 1.3 |
| V8-22 | | 9/9/1993 | ND (< 0.5) | 1.1 | 98 | 7.1 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 73 | ND (< 0.5) | 11 | ND (< 0.5) | |
| V8-22 | | 12/13/1993 | ND (< 5) | ND (< 5) | 16 | ND (< 5) | ND (< 5) | ND (< 5) | - | 15 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-22 | | 3/9/1994 | ND (< 2.5) | 28 | 580 | 52 | - | ND (< 2.5) | ND (< 2.5) | 800 | ND (< 2.5) | 30 | ND (< 2.5) | |
| V8-22 | | 6/6/1994 | ND (< 0.5) | 6 | 180 | 20 | - | ND (< 0.5) | ND (< 0.5) | 150 | ND (< 0.5) | 30 | ND (< 0.5) | |
| V8-22 | | 9/7/1994 | ND (< 0.5) | 5.1 | 58 | 8.3 | - | ND (< 0.5) | ND (< 0.5) | 56 | ND (< 0.5) | 14 | ND (< 0.5) | |
| V8-22 | | 12/6/1994 | ND (< 5) | ND (< 5) | 8.2 | ND (< 5) | ND (< 5) | ND (< 5) | - | 13 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V8-22 | | 3/6/1995 | ND (< 0.5) | 1.6 | 23 | 1.9 | - | ND (< 0.5) | ND (< 0.5) | 24 | ND (< 0.5) | 5.2 | ND (< 0.5) | |
| V8-22 | | 6/9/1995 | ND (< 1) | 16 | 260 | 13 | - | ND (< 1) | ND (< 1) | 180 | ND (< 1) | 65 | ND (< 1) | |
| V8-22 | | 9/8/1995 | ND (< 0.5) | 25 | 230 | 13 | - | 2.6 | ND (< 0.5) | 180 | 1.8 | 27 | ND (< 0.5) | |
| V8-22 | | 12/8/1995 | ND (< 5) | 5.8 | 40 | ND (< 5) | - | ND (< 5) | - | 32 | ND (< 5) | 9.8 | ND (< 10) | |
| V8-22 | Dup | 12/8/1995 | ND (< 5) | 5.9 | 41 | ND (< 5) | - | ND (< 5) | - | 32 | ND (< 5) | 9.6 | ND (< 10) | |
| V8-22 | | 3/7/1996 | ND (< 2.5) | 49 | 160 | 9.8 | 23 | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | 34 | ND (< 2.5) | |
| V8-22 | Dup | 3/7/1996 | ND (< 2.5) | 53 | 170 | 9.8 | 24 | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | 35 | ND (< 2.5) | |
| V8-22 | | 6/6/1996 | ND (< 1) | 31 | 100 | 7.3 | 16 | ND (< 1) | ND (< 1) | 77 | ND (< 1) | 34 | ND (< 1) | CBMA = 120 ; CHLFM = 1.4 |
| V8-22 | | 9/13/1996 | ND (< 2.5) | 160 | 320 | 21 | 68 | ND (< 2.5) | ND (< 2.5) | 210 | ND (< 2.5) | 80 | ND (< 2.5) | CBMA = 105 ; CHLFM = 6 ; Freon 11 = 4.2 ; MC = 2.8 |
| V8-22 | Dup | 9/13/1996 | ND (< 2.5) | 180 | 360 | 22 | 74 | ND (< 2.5) | ND (< 2.5) | 220 | ND (< 2.5) | 96 | ND (< 2.5) | CBMA = 107 ; CHLFM = 6.2 ; Freon 11 = 4.6 ; MC = 2.9 |
| V8-22 | | 12/13/1996 | ND (< 5) | 25 | 46 | ND (< 5) | 5.6 | ND (< 5) | - | 36 | ND (< 5) | 7.5 | ND (< 10) | |
| V8-22 | | 3/6/1997 | ND (< 0.5) | 16 | 29 | 2.5 | 5.2 | ND (< 0.5) | ND (< 0.5) | 16 | ND (< 0.5) | 20 | ND (< 0.5) | CBMA = 116 ; Freon 11 = 0.56 |
| V8-22 | | 6/6/1997 | ND (< 0.5) | 6.9 | 7.8 | 1.3 | 0.45 | ND (< 0.5) | ND (< 0.5) | 10 | ND (< 0.5) | 1.6 | ND (< 0.5) | CBMA = 96 ; MC = 2.2 |
| V8-22 | | 9/10/1997 | ND (< 0.5) | 39 | 39 | 4.9 | 5.4 | 0.76 | ND (< 0.5) | 45 | 0.53 | 6.1 | ND (< 0.5) | CBMA = 109 ; CHLFM = 1.8 |
| V8-22 | | 12/3/1997 | ND (< 0.5) | 9.3 | 12 | 2.9 | 3.3 | ND (< 0.5) | ND (< 0.5) | 10 | ND (< 0.5) | 6.8 | ND (< 0.5) | CBMA = 108 ; Freon 11 = 0.65 |
| V8-22 | | 12/10/1998 | ND (< 0.5) | 4.49 | 5.34 | 1.02 | NA | ND (< 0.5) | ND (< 0.5) | 5.61 | ND (< 0.5) | 3.19 | ND (< 0.5) | CBMA = 101 |
| V8-22 | | 12/10/1999 | ND (< 0.5) | 3.91 | 2.51 | ND (< 0.5) | 0.613 | ND (< 0.5) | ND (< 0.5) | 3.79 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| V8-22 | | 12/5/2000 | ND (< 0.50) | 2.8 | 1.5 | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-22 | | 6/19/2001 | ND (< 0.50) | 2.2 | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V8-22 | | 6/25/2003 | ND (< 0.50) | 9.1 | 5.4 | 4.9 | 6.3 | ND (< 0.50) | ND (< 0.50) | 8.7 | ND (< 0.50) | 5.8 | ND (< 0.50) | |
| V8-22 | | 6/20/2005 | 1.2 | 8.7 | 7.6 | 14 | 10 | ND (< 0.50) | ND (< 0.50) | 14 | ND (< 0.50) | 2.6 | ND (< 0.50) | |
| V8-22 | | 6/20/2007 | ND (< 0.50) | 24 | 7.9 | 16 | 12 | ND (< 0.50) | ND (< 0.50) | 15 | ND (< 0.50) | 4.7 | ND (< 0.50) | |
| V8-22 | | 6/11/2009 | ND (< 0.50) | 49 | 5.0 | 13 | 8.7 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 4.1 | ND (< 0.50) | |
| V8-22 | | 6/14/2011 | ND (< 0.50) | 13 | 5.9 | 16 | 10 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 3.0 | ND (< 0.50) | |
| V8-22 | | 6/18/2013 | ND (< 0.50) | 16 | 3.9 | 12 | 9.0 | ND (< 0.50) | ND (< 0.50) | 8.1 | ND (< 0.50) | 2.4 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V8-34 | | 9/9/2013 | ND (<0.50) | 9 | ND (<0.50) | 16 | 15 | ND (<0.50) | ND (<0.50) | ND (<0.50) | ND (<0.50) | ND (<0.50) | ND (<0.50) | |
| V8-34 | | 10/12/2013 | ND (< 0.50) | 13 | ND (< 0.50) | 18 | 21 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-34 | | 1/19/2014 | ND (< 0.5) | 20 | ND (< 0.5) | 21 | 21 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 2.0) | ND (< 0.5) | |
| V8-34 | | 6/11/2014 | ND (< 0.50) | 50 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V8-34* | LF | 7/1/2014 | ND (< 0.5) | 22 | ND (< 0.5) | 18 | 21 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 2.0) | ND (< 0.5) | |
| V8-34* | 3V | 7/1/2014 | ND (< 0.5) | 16 | ND (< 0.5) | 19 | 22 | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 2.0) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| V-9 | | 12/14/1990 | 2 | 160 | 60 | 17 | 29 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| V-9 | | 4/15/1991 | ND (< 0.5) | 190 | 25 | 16 | ND (< 3) | ND (< 0.5) | ND (< 0.5) | 3.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | Toluene = 0.7 |
| V-9 | Dup | 4/15/1991 | 0.2 | - | - | 22 | 4.6 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V-9 | Dup | 4/15/1991 | 0.2 | - | - | 22 | 4.6 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.4 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V-9 | | 7/30/1991 | ND (< 0.5) | 34 | 17 | 14 | - | ND (< 0.5) | ND (< 0.5) | 46 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-9 | | 11/1/1991 | ND (< 0.5) | 180 | 52 | 24 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| V-9 | Dup | 11/1/1991 | ND (< 0.5) | 180 | 52 | 24 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| V-9 | | 12/12/1991 | ND (< 5) | 110 | 24 | 17 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-9 | | 3/4/1992 | ND (< 1) | 190 | 48 | 22 | - | 7.8 | ND (< 1) | 5 | ND (< 1) | ND (< 1) | ND (< 1) | |
| V-9 | | 6/8/1992 | ND (< 0.5) | 130 | 24 | 17 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-9 | | 10/13/1992 | ND (< 0.5) | 110 | 29 | 12 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-9 | | 12/9/1992 | ND (< 5) | 230 | 60 | 26 | ND (< 10) | ND (< 5) | - | 7.2 | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-9 | | 3/5/1993 | ND (< 0.5) | 77 | 20 | 14 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| V-9 | | 6/11/1993 | ND (< 0.5) | 28 | 7.3 | 33 | - | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-9 | | 9/9/1993 | ND (< 0.5) | 1.5 | ND (< 0.5) | 0.52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-9 | | 12/9/1993 | ND (< 5) | 16 | ND (< 5) | 28 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-9 | | 3/9/1994 | ND (< 0.5) | 31 | 2.7 | 25 | - | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-9 | | 6/2/1994 | ND (< 0.5) | 30 | 23 | 34 | - | ND (< 0.5) | ND (< 0.5) | 3.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| V-9 | | 12/6/1994 | ND (< 5) | 14 | ND (< 5) | 8.2 | ND (< 5) | ND (< 5) | - | 9 | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 24 |
| V-9 | | 6/7/1995 | ND (< 0.5) | 18 | 11 | 16 | - | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.8 |
| V-9 | | 12/6/1995 | ND (< 5) | 40 | ND (< 5) | 9.6 | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-9 | | 6/10/1996 | ND (< 5) | 100 | 300 | 84 | 110 | ND (< 5) | ND (< 5) | 430 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 113 ; CHLFM = 7.5 |
| V-9 | | 12/11/1996 | ND (< 25) | 110 | 420 | 130 | 150 | ND (< 25) | - | 790 | ND (< 25) | ND (< 25) | ND (< 50) | |
| V-9 | | 6/5/1997 | ND (< 5) | 64 | 110 | 35 | 33 | ND (< 5) | ND (< 5) | 140 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 102 |
| V-9 | | 12/9/1997 | ND (< 2.5) | 25 | 17 | 6.2 | 4.3 | ND (< 2.5) | ND (< 2.5) | 26 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 100 |
| V-9 | | 6/2/1998 | ND (< 0.5) | 9.6 | 9.8 | 2.3 | 2.2 | ND (< 0.5) | ND (< 0.5) | 11 | ND (< 0.5) | 0.74 | ND (< 0.5) | CBMA = 119 ; MC = 2 |
| V-9 | | 12/8/1998 | ND (< 0.5) | 16.8 | 0.975 | 5.19 | 1.08 | ND (< 0.5) | ND (< 0.5) | 19.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| V-9 | | 6/10/1999 | ND (< 0.500) | 6.78 | 4.27 | 2.15 | 1.42 | ND (< 0.500) | ND (< 0.500) | 6.90 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| V-9 | | 12/10/1999 | ND (< 0.5) | 10.8 | 10 | 11.1 | 5.5 | ND (< 0.5) | ND (< 0.5) | 12.3 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | CHLFM = 0.502 |
| V-9 | | 6/6/2000 | ND (< 0.50) | 4.8 | 1.5 | 0.75 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-9 | | 12/7/2000 | ND (< 0.50) | 11 | 2.5 | 2.4 | 0.95 | ND (< 0.50) | ND (< 0.50) | 4.3 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V-9 | Dup | 12/7/2000 | ND (< 0.50) | 11 | 2.6 | 2.4 | 1.0 | ND (< 0.50) | ND (< 0.50) | 4.3 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V-9 | | 6/20/2001 | ND (< 0.50) | 5.0 | 3.9 | 6.0 | 2.0 | ND (< 0.50) | ND (< 0.50) | 3.2 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V-9 | | 6/24/2003 | ND (< 0.50) | 6.4 | 1.5 | 2.3 | 1.0 | ND (< 0.50) | ND (< 0.50) | 4.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-9 | | 7/5/2007 | ND (< 1.0) | 140 | 5.0 | 2.9 | 3.6 | ND (< 1.0) | ND (< 1.0) | 14 | ND (< 1.0) | 3.8 | ND (< 1.0) | |
| V-9 | | 6/11/2009 | ND (< 10) | 830 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 15 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V-9 | | 6/15/2011 | ND (< 10) | 2,000 | ND (< 10) | 15 | 11 | ND (< 10) | ND (< 10) | 27 | ND (< 10) | 12 | ND (< 10) | |
| V-9 | | 6/18/2013 | ND (< 10) | 880 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 31 | ND (< 10) | ND (< 10) | ND (< 10) | |
| V-9 | | 6/11/2014 | ND (< 10) | 2,000 | ND (< 10) | 13 | 10 | ND (< 10) | ND (< 10) | 470 | ND (< 10) | ND (< 10) | 65 | |
| | | | | | | | | | | | | | | |
| V-9A1U | | 4/15/1991 | ND (< 3) | 930 | 9 | 5 | ND (< 3) | ND (< 3) | ND (< 3) | 7 | ND (< 3) | ND (< 3) | ND (< 3) | CHLFM = 3 |
| | | | | | | | | | | | | | | |
| V-9X | | 12/16/1999 | ND (< 13) | 400 | 55 | ND (< 13) | 21 | ND (< 13) | ND (< 13) | 55 | ND (< 13) | 70 | ND (< 13) | |
| V-9X | | 8/15/2000 | ND (< 10) | 570 | 85 | 11 | 28 | ND (< 10) | ND (< 10) | 72 | ND (< 10) | 93 | ND (< 10) | |
| V-9X | | 12/11/2000 | ND (< 25) | 550 | 58 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 49 | ND (< 25) | ND (< 100) | ND (< 25) | |
| V-9X | | 6/22/2001 | ND (< 25) | 520 | 33 | ND (< 25) | ND (< 25) | ND (< 25) | 48 | 32 | ND (< 25) | ND (< 100) | ND (< 25) | 1,1,2,2-TCA = 32 ; 1,3-DCB = 30 ; 1,4-DCB = 51 |
| V-9X | | 6/26/2003 | ND (< 10) | 430 | 20 | 11 | 11 | ND (< 10) | ND (< 10) | 24 | ND (< 10) | 17 | ND (< 10) | |
| V-9X | | 6/30/2005 | ND (< 2.5) | 4.4 | ND (< 2.5) | 16 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 500 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLEA = 7.1 |
| V-9X | | 7/19/2007 | ND (< 2.5) | 54 | ND (< 2.5) | 7.7 | 3.1 | ND (< 2.5) | ND (< 2.5) | 180 | ND (< 2.5) | ND (< 2.5) | 63 | |
| V-9X | | 6/15/2009 | ND (< 25) | 2,500 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | |
| V-9X | | 6/15/2011 | ND (< 1.0) | 2,000 | 5.5 | 14 | 9.0 | ND (< 1.0) | ND (< 1.0) | 30 | ND (< 1.0) | 5.5 | ND (< 1.0) | |
| V-9X | | 6/18/2013 | ND (< 10) | 2,800 | ND (< 10) | 12 | ND (< 10) | ND (< 10) | ND (< 10) | 910 | ND (< 10) | ND (< 10) | 120 | |
| V-9X | | 6/11/2014 | ND (< 10) | 1,700 | ND (< 10) | 12 | 14 | ND (< 10) | ND (< 10) | 400 | ND (< 10) | ND (< 10) | 72 | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V-10 | | 12/20/1990 | - | - | - | - | - | - | 0.5 | - | - | - | - | 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; Acetone = 30 ; Benzene = 0.5 ; CHLBZ = 0.5 ; Ethylbenzene = 0.5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 1.2 ; Xylenes = 0.5 |
| V-10 | | 2/6/1991 | 0.2 | 0.7 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V-10 | | 7/29/1991 | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| V-10 | | 12/9/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | | 6/10/1992 | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-10 | | 12/8/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-10 | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | | 6/2/1994 | ND (< 0.5) | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-10 | | 12/6/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-10 | Dup | 6/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-10 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | | 6/4/1996 | ND (< 0.5) | 0.95 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| V-10 | | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | Dup | 12/9/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-10 | | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| V-10 | Dup | 12/2/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 96 |
| V-10 | | 12/10/1999 | ND (< 0.5) | 3.12 | 0.596 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| V-10 | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | BDCHLMA = 1.1 ; CHLFM = 5.5 |
| V-10 | | 6/25/2003 | ND (< 0.50) | 0.64 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-10 | | 6/20/2005 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-10 | | 6/20/2007 | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-10 | | 6/11/2009 | ND (< 0.50) | 0.89 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-10 | | 6/16/2011 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-10 | | 6/18/2013 | ND (< 0.50) | 0.81 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V-16A1U | | 6/16/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-16A1U | | 6/19/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V-23 | | 4/10/1991 | ND (< 5) | 150 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| V-23 | Dup | 4/10/1991 | 0.2 | 100 | 1.5 | 0.9 | 1.8 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2,4-TCB = 10 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| V-23 | | 7/29/1991 | ND (< 0.5) | 130 | 0.8 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 10/9/1991 | ND (< 0.5) | 27 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 12/11/1991 | ND (< 5) | 62 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-23 | | 3/4/1992 | ND (< 0.5) | 57 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 6/8/1992 | ND (< 0.5) | 46 | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 10/12/1992 | ND (< 0.5) | 86 | 3.9 | 1.4 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 5.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 12/8/1992 | ND (< 5) | 85 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 25 |
| V-23 | | 3/8/1993 | ND (< 0.5) | 52 | 1.6 | 0.7 | - | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 6/10/1993 | ND (< 0.5) | 34 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 9/10/1993 | ND (< 0.5) | 37 | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | Dup | 9/10/1993 | ND (< 0.5) | 38 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 12/9/1993 | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-23 | Dup | 12/9/1993 | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V-23 | | 3/9/1994 | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 6/2/1994 | ND (< 0.5) | 59 | 1.1 | 0.84 | - | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 9/6/1994 | ND (< 0.5) | 21 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 12/8/1994 | ND (< 5) | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-23 | | 3/2/1995 | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 6/7/1995 | ND (< 0.5) | 100 | 1.9 | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.68 |
| V-23 | | 9/7/1995 | ND (< 0.5) | 170 | 2.9 | 1.8 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-23 | | 12/6/1995 | ND (< 5) | 73 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-23 | | 3/6/1996 | ND (< 2.5) | 150 | 7.4 | ND (< 2.5) | 4 | ND (< 2.5) | ND (< 2.5) | 5.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| V-23 | | 6/7/1996 | ND (< 0.5) | 30 | 0.68 | ND (< 0.5) | 0.58 | ND (< 0.5) | ND (< 0.5) | 0.65 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 118 |
| V-23 | | 9/12/1996 | ND (< 0.5) | 27 | 0.59 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| V-23 | | 12/12/1996 | ND (< 5) | 95 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-23 | | 3/6/1997 | ND (< 0.5) | 22 | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 |
| V-23 | | 6/6/1997 | ND (< 0.5) | 18 | 0.74 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.61 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 92 |
| V-23 | | 9/10/1997 | ND (< 0.5) | 18 | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 ; MC = 1.3 |
| V-23 | Dup | 9/10/1997 | ND (< 0.5) | 19 | 0.73 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 ; MC = 1.3 |
| V-23 | | 12/8/1997 | ND (< 0.5) | 48 | 2.3 | 3.7 | 7.4 | ND (< 0.5) | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 ; Freon 11 = 0.82 |
| V-23 | | 6/4/1998 | ND (< 0.5) | 3.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| V-23 | Dup | 6/4/1998 | ND (< 0.5) | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| V-23 | | 12/10/1998 | ND (< 2.5) | 53 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 119 |
| V-23 | | 6/10/1999 | ND (< 2.50) | 36.3 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |
| V-23 | | 12/14/1999 | ND (< 1.25) | 47.1 | 1.3 | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | ND (< 1.25) | |
| V-23 | | 6/6/2000 | ND (< 0.50) | 41 | ND (< 0.50) | ND (< 0.50) | 0.60 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-23 | | 12/5/2000 | ND (< 1.0) | 50 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| V-23 | Dup | 12/5/2000 | ND (< 1.0) | 42 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| V-23 | | 6/19/2001 | ND (< 1.0) | 34 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| V-23 | | 6/26/2003 | ND (< 1.0) | 48 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| V-23 | | 6/20/2005 | ND (< 0.50) | 2.5 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-23 | | 6/20/2007 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-23 | | 6/15/2009 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-23 | | 6/15/2011 | ND (< 0.50) | 0.90 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-23 | | 6/18/2013 | ND (< 0.50) | 0.57 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-23 | Dup | 6/18/2013 | ND (< 0.50) | 0.58 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| V-33A2D | | 6/15/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 10/13/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 2/25/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | - | ND (< 10) | |
| V-33A2D | | 3/8/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 6/11/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 9/10/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 12/13/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-33A2D | | 3/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | Dup | 3/9/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 6/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 12/8/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-33A2D | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | Dup | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| V-33A2D | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-33A2D | | 6/4/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| V-33A2D | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| V-33A2D | | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| V-33A2D | Dup | 6/4/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 106 |
| V-33A2D | | 12/9/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 98 |
| V-33A2D | | 6/4/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 121 |
| V-33A2D | | 12/9/1998 | ND (< 0.5) | 0.63 | 1.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 102 |
| V-33A2D | | 6/10/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| V-33A2D | | 7/29/1999 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| V-33A2D | | 12/10/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| V-33A2D | | 6/6/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V-33A2D | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V-33A2D | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| V-33A2D | | 6/25/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-33A2D | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-33A2D | | 6/20/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-33A2D | | 6/11/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-33A2D | | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| V-33A2D | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| VB-1 | | 12/13/1990 | 2.4 | 66 | 13 | 4 | 3 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 200 ; BDCHLMA = 4 ; Benzene = 1.9 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 1 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.9 ; o-Xylene = 1.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 3.2 |
| VB-1 | | 12/13/1990 | - | - | - | - | - | - | - | - | - | - | - | Benzene = 3.3 ; Ethylbenzene = 1.1 ; Xylenes = 7.2 |
| VB-1 | | 4/18/1991 | 8 | 140 | 14 | 6 | - | 2 | ND (< 0.5) | 6 | 1 | ND (< 0.5) | ND (< 0.5) | Benzene = 1 ; Ethylbenzene = 2 ; Xylenes = 1 |
| VB-1 | | 7/24/1991 | 6.2 | 120 | 8 | 4.7 | - | 1.3 | ND (< 0.5) | 7 | 1.8 | 0.9 | ND (< 0.5) | |
| VB-1 | | 11/12/1991 | 4.9 | 97 | 22 | 6.6 | - | ND (< 0.5) | ND (< 0.5) | 6.1 | 1.4 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| VB-1 | | 12/11/1991 | ND (< 5) | 110 | 24 | 7.1 | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| VB-1 | | 3/6/1992 | 6.1 | 110 | 9.7 | 5.2 | - | 0.9 | ND (< 0.5) | 11 | 0.9 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| VB-1 | | 6/5/1992 | 7.9 | 240 | 9.6 | 7.3 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 31 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| VB-1 | | 9/11/1992 | 7.3 | 250 | 8.6 | 5.9 | - | 0.9 | ND (< 0.5) | 19 | 1.9 | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| VB-1 | | 12/10/1992 | 5.9 | 160 | 12 | 5.3 | ND (< 5) | ND (< 5) | - | 12 | ND (< 5) | ND (< 5) | ND (< 10) | |
| VB-1 | | 3/12/1993 | 34 | 2,000 | 18 | 7 | ND (< 25) | ND (< 5) | ND (< 5) | 200 | ND (< 5) | ND (< 5) | ND (< 5) | |
| VB-1 | | 6/4/1993 | 26 | 2,000 | 9 | 3 | ND (< 25) | ND (< 2.5) | ND (< 2.5) | 95 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| VB-1 | | 9/10/1993 | 26 | 1,000 | 15 | 6.9 | ND (< 12) | ND (< 2.5) | ND (< 2.5) | 48 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| VB-1 | | 12/3/1993 | 11 | 410 | 8.1 | 5.8 | - | ND (< 5) | - | 18 | ND (< 5) | ND (< 5) | ND (< 10) | Benzene = 5.9 |
| VB-1 | | 3/8/1994 | 10 | 420 | 16 | 8.7 | - | ND (< 1) | ND (< 1) | 40 | ND (< 1) | ND (< 1) | ND (< 1) | |
| VB-1 | | 6/7/1994 | 12 | 29 | 26 | 11 | - | ND (< 0.5) | ND (< 0.5) | 59 | 1.1 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| VB-1 | | 9/9/1994 | 11 | 320 | 26 | 10 | - | ND (< 2.5) | ND (< 2.5) | 52 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| VB-1 | | 12/7/1994 | 7.6 | 180 | 15 | 6.3 | - | ND (< 5) | - | 28 | ND (< 5) | ND (< 5) | ND (< 10) | |
| VB-1 | | 3/3/1995 | 12 | 550 | 21 | 6 | - | ND (< 2.5) | ND (< 2.5) | 63 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| VB-1 | | 6/8/1995 | 28 | 830 | 14 | ND (< 5) | - | ND (< 5) | ND (< 5) | 71 | ND (< 5) | ND (< 5) | ND (< 5) | |
| VB-1 | | 11/9/1995 | 16 | 350 | 24 | 8.6 | - | ND (< 0.5) | ND (< 0.5) | 43 | 1.4 | 0.93 | 0.77 | CHLFM = 2.2 |
| VB-1 | | 12/8/1995 | 18 | 350 | 37 | 10 | ND (< 50) | ND (< 5) | - | 68 | ND (< 5) | ND (< 5) | ND (< 10) | |
| VB-1 | | 3/7/1996 | 62 | 1,000 | 34 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 97 | ND (< 12) | ND (< 12) | ND (< 12) | |
| VB-1 | | 9/13/1996 | 33 | 320 | 39 | 8.9 | 19 | ND (< 5) | ND (< 5) | 60 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 106 ; MC = 8.5 |
| VB-1 | | 12/13/1996 | 13 | 270 | 33 | ND (< 10) | 15 | ND (< 10) | - | 49 | ND (< 10) | ND (< 10) | ND (< 20) | |
| VB-1 | | 3/7/1997 | 30 | 440 | 27 | 7.7 | 14 | ND (< 5) | ND (< 5) | 66 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 104 |
| VB-1 | | 6/9/1997 | 22 | 240 | 28 | 6.4 | 13 | ND (< 5) | ND (< 5) | 47 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 93 |
| VB-1 | | 12/9/1997 | 11 | 170 | 26 | 5.7 | 11 | ND (< 5) | ND (< 5) | 34 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 97 |
| VB-1 | | 6/3/1998 | 39 | 370 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 53 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 117 |
| VB-1 | | 12/10/1998 | 33.2 | 250 | 18.4 | 5.81 | NA | ND (< 5) | ND (< 5) | 52.1 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 122 |
| VB-1 | | 6/8/1999 | 55.5 | 397 | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | 46.2 | ND (< 12.5) | ND (< 12.5) | ND (< 12.5) | |
| VB-1 | | 12/8/1999 | 19.2 | 170 | 15.4 | ND (< 5) | 8.54 | ND (< 5) | ND (< 5) | 31.9 | ND (< 5) | ND (< 10) | ND (< 5) | |
| VB-1 | | 6/8/2000 | 24 | 160 | 15 | 2.8 | 3.3 | ND (< 2.5) | ND (< 2.5) | 30 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| VB-1 | | 12/7/2000 | 15 | 130 | 19 | 2.6 | 5.3 | ND (< 2.5) | ND (< 2.5) | 23 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| VB-1 | | 6/21/2001 | 18 | 130 | 14 | ND (< 2.5) | 4.9 | ND (< 2.5) | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| VB-1 | | 6/27/2003 | 18 | 110 | 4.8 | 1.8 | 2.5 | ND (< 1.0) | ND (< 1.0) | 18 | 1.2 | ND (< 1.0) | ND (< 1.0) | |
| VB-1 | | 6/20/2005 | 10 | 98 | 7.0 | 2.0 | 3.6 | ND (< 0.50) | ND (< 0.50) | 18 | 0.59 | 0.99 | 0.56 | CHLFM = 0.59 |
| VB-1 | Dup | 6/20/2005 | 12 | 130 | 9.5 | 2.6 | 5.1 | ND (< 1.0) | ND (< 1.0) | 24 | ND (< 1.0) | 1.6 | 1.1 | CHLFM = 1.2 |
| VB-1 | | 6/14/2007 | 9.2 | 90 | 6.5 | 1.8 | 3.6 | ND (< 0.50) | ND (< 0.50) | 15 | ND (< 0.50) | 1.1 | ND (< 0.50) | |
| VB-1 | | 6/15/2009 | 6.2 | 93 | 6.1 | 1.6 | 3.1 | ND (< 0.50) | ND (< 0.50) | 12 | ND (< 0.50) | 0.63 | ND (< 0.50) | |
| VB-1 | | 6/16/2011 | 2.5 | 56 | 2.1 | 1.1 | 1.8 | ND (< 0.50) | ND (< 0.50) | 6.4 | ND (< 0.50) | 0.57 | ND (< 0.50) | |
| VB-1 | Dup | 6/16/2011 | 2.4 | 56 | 2.1 | 1.1 | 1.8 | ND (< 0.50) | ND (< 0.50) | 6.3 | ND (< 0.50) | 0.52 | ND (< 0.50) | |
| VB-1 | | 6/20/2013 | 1.0 | 19 | 0.69 | ND (< 0.50) | 0.68 | ND (< 0.50) | ND (< 0.50) | 2.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-1A1U | | 4/18/1991 | 4 | 77 | 32 | 16 | - | ND (< 1) | ND (< 0.5) | 3 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-1A1U | | 8/27/1991 | 8.5 | 110 | 41 | 27 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| W-1A1U | | 10/8/1991 | 5.1 | 74 | 20 | 33 | - | ND (< 0.5) | ND (< 0.5) | 7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| W-1A1U | | 12/10/1991 | ND (< 5) | 77 | 17 | 38 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-1A1U | | 3/9/1992 | 8.3 | 120 | 57 | 22 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| W-1A1U | | 6/11/1992 | 6.5 | 86 | 40 | 9.7 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| W-1A1U | | 9/11/1992 | 2.7 | 84 | 22 | 31 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 11 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| W-1A-A2 | | 12/11/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 35 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-1A-A2 | | 4/18/1991 | 1.5 | 4.2 | 3.5 | 1.6 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-1A-A2 | Dup | 4/18/1991 | 1.9 | 5.3 | 4.6 | 2.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-1A-A2 | | 7/25/1991 | 7.5 | 21 | 14 | 4 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-1A-A2 | | 10/7/1991 | 5.6 | 17 | 11 | 3.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-1A-A2 | | 12/10/1991 | 7.4 | 13 | 7.7 | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-1A-A2 | | 3/9/1992 | 2.6 | 7.5 | 7.4 | 2.1 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-1A-A2 | | 6/11/1992 | 9.9 | 28 | 22 | 5.2 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-1A-A2 | | 9/11/1992 | ND (< 0.5) | 2.9 | 0.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| | | | | | | | | | | | | | | |
| W-2A1U | | 12/13/1990 | 2 | 28 | 29 | 4 | 9.8 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 200 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| W-2A1U | | 4/22/1991 | 1 | 91 | 69 | 4 | ND (< 3) | ND (< 0.5) | ND (< 0.5) | 27 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-2A1U | | 7/25/1991 | ND (< 1) | 87 | 74 | 4.2 | - | ND (< 1) | ND (< 1) | 37 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-2A1U | | 12/6/1991 | ND (< 5) | 90 | 46 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-2A1U | | 6/8/1992 | 1.6 | 100 | 53 | 4.5 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 44 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 |
| | | | | | | | | | | | | | | |
| W-3A1U | | 12/11/1990 | 0.2 | 37 | 29 | 3.8 | 31 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.8 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-3A1U | | 4/18/1991 | 1.9 | 190 | 32 | 3.4 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-3A1U | Dup | 4/18/1991 | 2.1 | - | 32 | 3.5 | 32 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 1.1 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-3A1U | Dup | 4/18/1991 | 2.1 | 280 | 32 | 3.5 | 32 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 1.1 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-3A1U | | 7/24/1991 | 5.6 | 240 | 34 | 3.8 | ND (< 5) | ND (< 1) | ND (< 1) | 5.4 | ND (< 1) | ND (< 1) | ND (< 1) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-3A1U | | 10/8/1991 | 9.3 | 270 | 30 | 3.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 6.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| W-3A1U | | 12/10/1991 | 5.4 | 270 | 31 | ND (< 5) | ND (< 10) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-3A1U | | 3/6/1992 | 5.8 | 200 | 32 | 3.4 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.1 |
| W-3A1U | | 6/10/1992 | 2 | 210 | 29 | 2.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| W-3A1U | | 9/16/1992 | 6 | 210 | 31 | 3.3 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| W-3A1U | | 12/9/1992 | ND (< 5) | 250 | 33 | ND (< 5) | ND (< 10) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-3A1U | | 3/4/1993 | 9.2 | 270 | 31 | 3.2 | ND (< 5) | ND (< 1) | ND (< 1) | 3 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1 |
| W-3A1U | | 6/4/1993 | 2.4 | 240 | 24 | 9.2 | - | ND (< 1) | ND (< 1) | 15 | 1 | ND (< 1) | ND (< 1) | |
| W-3A1U | | 9/7/1993 | 3.6 | 250 | 34 | 6.6 | - | ND (< 0.5) | ND (< 0.5) | 11 | 1.4 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 ; MC = 1.7 |
| W-3A1U | | 12/6/1993 | ND (< 5) | 150 | 11 | ND (< 5) | - | ND (< 5) | - | 7.8 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-3A1U | | 3/3/1994 | 2.7 | 360 | 35 | 5.1 | - | ND (< 1) | ND (< 1) | 12 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-3A1U | | 6/8/1994 | 3.1 | 270 | 50 | 7.7 | - | ND (< 1) | ND (< 1) | 20 | 1.1 | ND (< 1) | ND (< 1) | CHLFM = 2.1 |
| W-3A1U | | 9/8/1994 | 4.3 | 260 | 35 | 5.8 | - | ND (< 1) | ND (< 1) | 14 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.4 |
| W-3A1U | | 12/7/1994 | ND (< 5) | 250 | 33 | ND (< 5) | - | ND (< 5) | - | 13 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-3A1U | | 3/7/1995 | 1.7 | 220 | 39 | 4.7 | - | ND (< 1) | ND (< 1) | 17 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.5 |
| W-3A1U | | 6/8/1995 | 1.2 | 190 | 30 | 3.6 | - | ND (< 1) | ND (< 1) | 13 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.2 |
| W-3A1U | | 9/7/1995 | ND (< 5) | 230 | 63 | 5.1 | - | ND (< 5) | ND (< 5) | 20 | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 6.7 |
| W-3A1U | | 12/7/1995 | ND (< 5) | 150 | 28 | ND (< 5) | - | ND (< 5) | - | 13 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-3A1U | | 3/7/1996 | ND (< 2.5) | 200 | 53 | 5.3 | 21 | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-3A1U | | 6/10/1996 | ND (< 5) | 180 | 43 | ND (< 5) | 19 | ND (< 5) | ND (< 5) | 22 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 114 |
| W-3A1U | | 9/12/1996 | 3.4 | 220 | 48 | 5.6 | 25 | ND (< 2.5) | ND (< 2.5) | 24 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 ; MC = 5.4 |
| W-3A1U | | 12/13/1996 | ND (< 5) | 180 | 41 | ND (< 5) | 19 | ND (< 5) | - | 23 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-3A1U | | 3/6/1997 | ND (< 2.5) | 190 | 40 | 5 | 19 | ND (< 2.5) | ND (< 2.5) | 22 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 115 |
| W-3A1U | | 6/6/1997 | 2.7 | 150 | 38 | 4.5 | 15 | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 96 |
| W-3A1U | | 12/3/1997 | ND (< 2.5) | 90 | 16 | 2.8 | 5.2 | ND (< 2.5) | ND (< 2.5) | 9.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 106 |
| W-3A1U | | 6/2/1998 | ND (< 5) | 70 | 5.2 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 6 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 114 |
| W-3A1U | | 12/8/1998 | ND (< 5) | 142 | 16.1 | ND (< 5) | 7.06 | ND (< 5) | ND (< 5) | 8.22 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 |
| W-3A1U | Dup | 12/8/1998 | ND (< 5) | 142 | 16.1 | ND (< 5) | 6.61 | ND (< 5) | ND (< 5) | 7.52 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 104 |
| W-3A1U | | 6/9/1999 | ND (< 10.0) | 133 | 13.4 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| W-3A1U | | 12/10/1999 | ND (< 5) | 152 | 14.9 | ND (< 5) | 6.66 | ND (< 5) | ND (< 5) | 5.67 | ND (< 5) | ND (< 10) | ND (< 5) | |
| W-3A1U | | 6/7/2000 | ND (< 2.5) | 110 | 4.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-3A1U | | 12/5/2000 | ND (< 2.5) | 120 | 7.0 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 2.8 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-3A1U | | 6/19/2001 | ND (< 2.5) | 130 | 6.6 | ND (< 2.5) | 2.7 | ND (< 2.5) | ND (< 2.5) | 2.6 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-3A1U | | 6/27/2002 | ND (< 2.5) | 140 | 4.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-3A1U | Dup | 6/27/2002 | ND (< 2.5) | 150 | 5.4 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-3A1U | | 6/25/2003 | ND (< 2.5) | 93 | 3.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-3A1U | | 9/1/2004 | ND (< 1.0) | 110 | 3.2 | ND (< 1.0) | 2.6 | ND (< 1.0) | ND (< 1.0) | 2.7 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 9/1/2004 | ND (< 1.0) | 90 | 3.6 | ND (< 1.0) | 2.7 | ND (< 1.0) | ND (< 1.0) | 2.4 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 6/21/2005 | ND (< 0.50) | 100 | 4.1 | 0.92 | 2.8 | ND (< 0.50) | ND (< 0.50) | 3.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-3A1U | | 6/28/2006 | ND (< 1.0) | 87 | 3.4 | ND (< 1.0) | 2.6 | ND (< 1.0) | ND (< 1.0) | 3.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 6/14/2007 | ND (< 1.0) | 150 | 6.5 | 1.5 | 13 | ND (< 1.0) | ND (< 1.0) | 4.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 6/10/2008 | ND (< 1.0) | 140 | 5.3 | 1.3 | 11 | ND (< 1.0) | ND (< 1.0) | 3.7 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 6/10/2009 | ND (< 1.0) | 130 | 4.0 | 1.1 | 10 | ND (< 1.0) | ND (< 1.0) | 3.3 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 6/8/2010 | ND (< 1.0) | 96 | 2.6 | ND (< 1.0) | 3.6 | ND (< 1.0) | ND (< 1.0) | 2.2 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-3A1U | | 6/14/2011 | 0.96 | 74 | 2.2 | 0.65 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-3A1U | | 6/12/2012 | ND (< 0.50) | 79 | 2.1 | 0.68 | 2.3 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-3A1U | | 6/18/2013 | ND (< 0.50) | 73 | 2.1 | 0.74 | 2.4 | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-3A1U | | 6/10/2014 | ND (< 0.50) | 66 | 1.6 | 0.60 | 1.8 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-3A1U | Dup | 6/10/2014 | ND (< 0.50) | 62 | 1.5 | 0.57 | 1.7 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-4A1U/A1 | | 12/11/1990 | 0.7 | 45 | 32 | 2.3 | 25 | 0.3 | 0.5 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 1 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-4A1U/A1 | | 4/22/1991 | ND (< 0.5) | 270 | 19 | 2 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-4A1U/A1 | | 7/24/1991 | 1.1 | 100 | 36 | 3.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 5.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2.7 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-4A1U/A1 | | 10/8/1991 | ND (< 0.5) | - | 39 | 4.3 | - | ND (< 0.5) | ND (< 0.5) | 4.4 | 0.5 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 |
| W-4A1U/A1 | | 11/12/1991 | ND (< 1) | 240 | 38 | 3.6 | ND (< 2.5) | ND (< 1) | ND (< 1) | 3.6 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1 |
| W-4A1U/A1 | | 12/6/1991 | ND (< 5) | 270 | 36 | ND (< 5) | ND (< 10) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-4A1U/A1 | | 3/9/1992 | 0.9 | 190 | 31 | 3.5 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| W-4A1U/A1 | | 6/10/1992 | ND (< 0.5) | 210 | 34 | 2.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.9 |
| W-4A1U/A1 | | 9/16/1992 | ND (< 0.5) | 220 | 38 | 3.2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| | | | | | | | | | | | | | | |
| W-5A1 | | 12/13/1990 | 2 | 42 | 21 | 6.8 | 5.6 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 200 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 3.4 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| W-5A1 | | 2/15/1991 | 2 | 140 | 84 | 19 | 17 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; BDCHLMA = 4 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Freon 11 = 5 ; MC = 50 ; trans-1,3-DCP = 3 |
| W-5A1 | | 4/16/1991 | 1 | - | 34 | 12 | - | 1 | ND (< 0.5) | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-5A1 | Dup | 4/16/1991 | 1 | - | 37 | 16 | - | 0.6 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-5A1 | Dup | 4/16/1991 | 1 | 140 | 37 | 16 | 19 | 0.6 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-5A1 | | 7/23/1991 | ND (< 2.5) | 160 | 60 | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 85 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-5A1 | | 10/7/1991 | 1.8 | 150 | 61 | 21 | ND (< 5) | 0.9 | ND (< 0.5) | 89 | ND (< 0.5) | 0.9 | ND (< 0.5) | CHLFM = 1 |
| W-5A1 | | 12/9/1991 | ND (< 5) | 160 | 51 | 25 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-5A1 | | 3/5/1992 | 0.8 | 49 | 23 | 13 | ND (< 1) | 0.9 | ND (< 0.5) | 66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| W-5A1 | | 6/11/1992 | 2 | 150 | 53 | 19 | ND (< 2.5) | 1 | ND (< 0.5) | 100 | ND (< 0.5) | 1 | ND (< 0.5) | CHLFM = 3.5 |
| W-5A1 | | 9/21/1992 | 1.9 | 160 | 53 | 18 | - | 1.1 | ND (< 0.5) | 120 | 0.5 | 0.9 | ND (< 0.5) | CHLFM = 3.8 |
| W-5A1 | | 12/9/1992 | ND (< 5) | 150 | 57 | 20 | - | ND (< 5) | - | 140 | ND (< 5) | ND (< 5) | ND (< 10) | Acetone = 24 |
| W-5A1 | Dup | 12/9/1992 | ND (< 5) | 160 | 63 | 19 | - | ND (< 5) | - | 130 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-5A1 | | 3/10/1993 | 2.8 | 140 | 60 | 24 | - | 1.2 | ND (< 0.5) | 90 | 0.7 | 1.4 | ND (< 0.5) | CHLFM = 5.4 |
| W-5A1 | | 6/4/1993 | 1.5 | 200 | 48 | 17 | ND (< 2.5) | 0.5 | ND (< 0.5) | 130 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-5A1 | | 9/8/1993 | 2.3 | 140 | 90 | 13 | ND (< 2.5) | 0.74 | ND (< 0.5) | 130 | ND (< 0.5) | 1.4 | ND (< 0.5) | CHLFM = 2 |
| W-5A1 | | 12/8/1993 | ND (< 5) | 140 | 70 | 15 | - | ND (< 5) | - | 120 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-5A1 | | 3/4/1994 | 3.6 | 160 | 100 | 17 | - | 1.6 | ND (< 0.5) | 140 | 2.1 | ND (< 0.5) | ND (< 0.5) | CHLFM = 4.4 ; Freon 11 = 0.97 |
| W-5A1 | | 6/8/1994 | 4.2 | 150 | 130 | 15 | - | ND (< 1) | ND (< 1) | 140 | ND (< 1) | 2.2 | ND (< 1) | CHLFM = 3.8 |
| W-5A1 | | 9/8/1994 | 3.3 | 160 | 100 | 17 | - | ND (< 0.5) | ND (< 0.5) | 120 | 0.95 | 2.9 | ND (< 0.5) | CHLFM = 2.7 |
| W-5A1 | | 12/7/1994 | ND (< 5) | 80 | 47 | 8.9 | - | ND (< 5) | - | 78 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-5A1 | | 3/7/1995 | 3.2 | 140 | 100 | 14 | - | ND (< 0.5) | ND (< 0.5) | 100 | 0.56 | 0.98 | ND (< 0.5) | CHLFM = 2.6 |
| W-5A1 | | 6/8/1995 | 3 | 130 | 100 | 14 | - | 0.72 | ND (< 0.5) | 91 | 0.53 | 2.8 | ND (< 0.5) | CHLFM = 2.9 ; Freon 11 = 0.68 |
| W-5A1 | Dup | 6/8/1995 | 2.8 | 130 | 100 | 14 | - | ND (< 0.5) | ND (< 0.5) | 92 | 0.52 | 2.8 | ND (< 0.5) | CHLFM = 2.7 ; Freon 11 = 0.67 |
| W-5A1 | | 11/9/1995 | ND (< 5) | 160 | ND (< 5) | 15 | ND (< 5) | ND (< 5) | ND (< 5) | 100 | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 7.8 |
| W-5A1 | | 12/7/1995 | ND (< 5) | 110 | 80 | 11 | - | ND (< 5) | - | 74 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-5A1 | | 3/7/1996 | 6.9 | 150 | 100 | 15 | 23 | ND (< 2.5) | ND (< 2.5) | 97 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CHLFM = 5.4 |
| W-5A1 | | 6/11/1996 | 5 | 110 | 74 | 12 | 19 | ND (< 2.5) | ND (< 2.5) | 69 | ND (< 2.5) | 4.8 | ND (< 2.5) | CBMA = 99 ; CHLFM = 5.7 |
| W-5A1 | | 9/12/1996 | 5.8 | 130 | 80 | 12 | 20 | ND (< 1.2) | ND (< 1.2) | 74 | ND (< 1.2) | 3 | ND (< 1.2) | CBMA = 93 ; CHLFM = 3.8 ; MC = 2.3 |
| W-5A1 | | 12/16/1996 | ND (< 5) | 110 | 87 | 12 | 17 | ND (< 5) | - | 82 | ND (< 5) | 5.7 | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-5A1 | | 3/6/1997 | 3.4 | 120 | 75 | 11 | 15 | ND (< 2.5) | ND (< 2.5) | 71 | ND (< 2.5) | 5.9 | ND (< 2.5) | CBMA = 117 ; CHLFM = 3.9 |
| W-5A1 | | 6/9/1997 | 3.9 | 100 | 67 | 12 | 13 | ND (< 2.5) | ND (< 2.5) | 68 | ND (< 2.5) | 3.4 | ND (< 2.5) | CBMA = 105 ; CHLFM = 4.6 |
| W-5A1 | | 12/3/1997 | ND (< 2.5) | 77 | 38 | 7.6 | 6.2 | ND (< 2.5) | ND (< 2.5) | 48 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 101 |
| | | | | | | | | | | | | | | |
| W-6A1U | | 12/10/1990 | 2.8 | 42 | 110 | 11 | 16 | 3 | 0.5 | - | - | 13 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 4.7 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| W-6A1U | | 4/11/1991 | ND (< 3) | 59 | 64 | 9 | - | ND (< 3) | ND (< 3) | 43 | ND (< 3) | ND (< 3) | ND (< 3) | |
| W-6A1U | Dup | 4/11/1991 | 2 | - | - | 9.2 | 17 | 0.7 | 1 | - | - | 8.1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.8 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-6A1U | Dup | 4/11/1991 | 2 | 44 | 62 | 9.2 | 17 | 0.7 | 1 | - | - | 8.1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.8 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-6A1U | | 7/26/1991 | 4.4 | 57 | 72 | 15 | - | 0.9 | ND (< 0.5) | 59 | 3.2 | 33 | ND (< 0.5) | CHLFM = 1.6 |
| W-6A1U | | 10/10/1991 | 6 | 68 | 72 | 17 | - | ND (< 5) | ND (< 5) | 76 | ND (< 5) | 5 | ND (< 5) | |
| W-6A1U | | 11/7/1991 | 5.5 | 69 | 57 | 14 | ND (< 1) | 1 | ND (< 0.5) | 69 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 ; Freon 11 = 0.8 |
| W-6A1U | | 12/9/1991 | ND (< 5) | 76 | 53 | 16 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-6A1U | | 3/9/1992 | 5.4 | 69 | 99 | 13 | ND (< 1) | 1 | ND (< 0.5) | 60 | ND (< 0.5) | 4.1 | ND (< 0.5) | CHLFM = 3.4 |
| W-6A1U | | 6/4/1992 | 5.7 | 70 | 72 | 17 | ND (< 1) | 0.7 | ND (< 0.5) | 89 | ND (< 0.5) | 2.4 | ND (< 0.5) | CHLFM = 2.1 |
| W-6A1U | | 9/18/1992 | 5.7 | 82 | 86 | 18 | ND (< 2.5) | 0.8 | ND (< 0.5) | 98 | ND (< 0.5) | 3.4 | ND (< 0.5) | CHLFM = 2.2 |
| W-6A1U | | 12/9/1992 | 5.9 | 79 | 82 | 18 | - | ND (< 5) | - | 120 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-6A1U | | 3/3/1993 | 5.6 | 97 | 100 | 16 | ND (< 2.5) | 0.9 | ND (< 0.5) | 94 | ND (< 0.5) | 3.1 | ND (< 0.5) | CHLFM = 4.3 ; Freon 11 = 0.6 |
| W-6A1U | | 6/4/1993 | 4.5 | 90 | 85 | 9.9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 80 | ND (< 0.5) | 3 | ND (< 0.5) | |
| W-6A1U | | 9/7/1993 | 7.4 | 120 | 110 | 19 | ND (< 2.5) | 0.53 | ND (< 0.5) | 100 | ND (< 0.5) | 4.6 | ND (< 0.5) | CHLFM = 2.5 ; Freon 11 = 1.2 ; MC = 1.7 |
| W-6A1U | | 12/6/1993 | 7.4 | 130 | 86 | 24 | - | ND (< 5) | - | 120 | ND (< 5) | 7.1 | ND (< 10) | |
| W-6A1U | | 3/4/1994 | 12 | 160 | 100 | 11 | - | 0.53 | ND (< 0.5) | 100 | 1.2 | 9.1 | ND (< 0.5) | CHLFM = 3.2 |
| W-6A1U | | 6/8/1994 | 12 | 180 | 89 | 11 | - | ND (< 0.5) | ND (< 0.5) | 80 | ND (< 0.5) | 7 | ND (< 0.5) | CHLFM = 2.8 |
| W-6A1U | | 12/7/1994 | 7.9 | 130 | 49 | ND (< 5) | - | ND (< 5) | - | 47 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-6A1U | | 6/8/1995 | 5.8 | 120 | 41 | 7.5 | - | ND (< 0.5) | ND (< 0.5) | 42 | ND (< 0.5) | 3.1 | ND (< 0.5) | CHLFM = 2.7 ; Freon 11 = 0.52 |
| W-6A1U | | 12/7/1995 | 6 | 140 | 61 | 18 | - | ND (< 5) | - | 92 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 6.9 |
| W-6A1U | Dup | 12/7/1995 | 5.4 | 130 | 56 | 17 | - | ND (< 5) | - | 86 | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 6.5 |
| W-6A1U | | 6/7/1996 | 7.8 | 150 | 76 | 15 | 30 | ND (< 1.2) | ND (< 1.2) | 92 | 1.6 | 5.5 | ND (< 1.2) | CBMA = 110 ; CHLFM = 14 ; MC = 1.7 |
| W-6A1U | | 12/13/1996 | 5.6 | 130 | 46 | 6.2 | 14 | ND (< 5) | - | 54 | ND (< 5) | 7.2 | ND (< 10) | |
| | | | | | | | | | | | | | | |
| W-7A1U | | 12/10/1990 | 1.1 | 78 | 9.6 | 1.5 | 3.8 | 0.6 | 0.5 | - | - | 1.8 | 0.6 | 1,1,2,2-TCA = 0.6 ; 1,1,2-TCA = 0.4 ; 1,2-DCPA = 0.4 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 0.8 ; Acetone = 75 ; BDCHLMA = 0.8 ; Benzene = 0.5 ; BRFM = 1 ; BRMA = 1 ; CHLBZ = 0.5 ; CHLEA = 1 ; CHLFM = 0.8 ; CHLMA = 1 ; cis-1,3-DCP = 0.6 ; CT = 0.6 ; DBCM = 0.8 ; EDB = 2 ; Ethylbenzene = 0.5 ; Freon 11 = 1 ; MC = 10 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.6 ; Xylenes = 0.5 |
| W-7A1U | | 4/11/1991 | ND (< 1) | 93 | 9 | 3 | - | ND (< 1) | ND (< 1) | 4 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-7A1U | | 7/26/1991 | 1.9 | 110 | 13 | 7.8 | ND (< 2.5) | 0.7 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| W-7A1U | | 8/7/1991 | 1.9 | 110 | 13 | 7.8 | ND (< 2.5) | 0.7 | ND (< 0.5) | 16 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.1 |
| W-7A1U | | 11/7/1991 | 1.9 | 110 | 14 | 6.2 | ND (< 1) | 0.6 | ND (< 0.5) | 10 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 ; Freon 11 = 0.5 |
| W-7A1U | Dup | 11/7/1991 | 1.3 | 120 | 13 | 5.6 | ND (< 1) | 0.6 | ND (< 0.5) | 9.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.5 ; Freon 11 = 0.5 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-7A1U | | 12/6/1991 | ND (< 5) | 130 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-7A1U | | 3/4/1992 | 2 | 86 | 16 | 8.2 | ND (< 2.5) | 0.6 | ND (< 0.5) | 18 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 |
| W-7A1U | | 6/8/1992 | 2.2 | 98 | 56 | 17 | ND (< 2.5) | 1.1 | ND (< 0.5) | 86 | ND (< 0.5) | 0.7 | ND (< 0.5) | CHLFM = 4.9 ; Freon 11 = 0.5 |
| W-7A1U | Dup | 6/8/1992 | 2 | 100 | 54 | 17 | ND (< 1) | 1 | ND (< 0.5) | 89 | ND (< 0.5) | 0.6 | ND (< 0.5) | CHLFM = 4.4 ; Freon 11 = 0.5 |
| W-7A1U | | 9/11/1992 | 2.2 | 98 | 54 | 15 | ND (< 2.5) | 1.2 | ND (< 0.5) | 82 | ND (< 0.5) | 1.2 | ND (< 0.5) | CHLFM = 4.1 |
| W-7A1U | | 12/11/1992 | ND (< 5) | 94 | 34 | 8.9 | - | ND (< 5) | - | 60 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-7A1U | Dup | 12/11/1992 | ND (< 5) | 96 | 34 | 10 | - | ND (< 5) | - | 63 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-7A1U | | 3/10/1993 | 2.8 | 97 | 82 | 24 | - | 1.3 | ND (< 0.5) | 98 | 0.5 | 1.4 | ND (< 0.5) | CHLFM = 6.1 |
| W-7A1U | | 6/2/1993 | 2.6 | 95 | 85 | 14 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 110 | ND (< 0.5) | 3 | ND (< 0.5) | CHLFM = 1.3 |
| W-7A1U | | 9/7/1993 | 4.7 | 120 | 92 | 12 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 100 | ND (< 0.5) | 4 | ND (< 0.5) | CHLFM = 3 ; Freon 11 = 0.75 ; MC = 1.8 |
| W-7A1U | | 12/8/1993 | 6.1 | 120 | 83 | 20 | - | ND (< 5) | - | 100 | ND (< 5) | 7 | ND (< 10) | |
| W-7A1U | | 3/4/1994 | 5.6 | 150 | 120 | 23 | - | 0.74 | ND (< 0.5) | 180 | 1.1 | 7.4 | ND (< 0.5) | CHLFM = 4.7 |
| W-7A1U | Dup | 3/4/1994 | 5.2 | 150 | 86 | 23 | - | 0.67 | ND (< 0.5) | 130 | 0.54 | 5.4 | ND (< 0.5) | CHLFM = 4.2 |
| W-7A1U | | 6/2/1994 | 6 | 160 | 130 | 26 | - | 1.2 | ND (< 0.5) | 180 | 1.2 | 7.7 | ND (< 0.5) | CHLFM = 7.2 |
| W-7A1U | | 9/7/1994 | 8.4 | 150 | 130 | 24 | - | 1 | ND (< 0.5) | 180 | 0.78 | 6.7 | ND (< 0.5) | 1,1,2-TCA = 0.67 ; CHLFM = 6.7 |
| W-7A1U | | 12/5/1994 | 8.1 | 160 | 110 | 22 | - | ND (< 5) | - | 150 | ND (< 5) | 5.9 | ND (< 10) | |
| W-7A1U | | 3/2/1995 | 9.2 | 150 | 120 | 17 | - | ND (< 0.5) | ND (< 0.5) | 150 | 0.53 | 5.3 | ND (< 0.5) | CHLFM = 5.9 ; Freon 11 = 2.2 |
| W-7A1U | | 6/6/1995 | 7.2 | 130 | 100 | 12 | - | ND (< 0.5) | ND (< 0.5) | 110 | 0.8 | 5.6 | ND (< 0.5) | CHLFM = 5 |
| W-7A1U | | 9/7/1995 | 6.6 | 150 | 84 | 7.4 | - | ND (< 2.5) | ND (< 2.5) | 79 | ND (< 2.5) | 4.7 | ND (< 2.5) | CHLFM = 5 |
| W-7A1U | | 12/6/1995 | ND (< 5) | 100 | 47 | ND (< 5) | - | ND (< 5) | - | 50 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-7A1U | | 3/7/1996 | 8.6 | 120 | 57 | 4.1 | 14 | ND (< 2.5) | ND (< 2.5) | 42 | ND (< 2.5) | 3.3 | ND (< 2.5) | CHLFM = 3.4 |
| W-7A1U | | 6/10/1996 | 4.7 | 92 | 30 | ND (< 2.5) | 7.8 | ND (< 2.5) | ND (< 2.5) | 20 | ND (< 2.5) | 4 | ND (< 2.5) | CBMA = 115 |
| W-7A1U | | 9/12/1996 | 7.2 | 95 | 21 | 1.6 | 6.3 | ND (< 1.2) | ND (< 1.2) | 14 | ND (< 1.2) | 2.1 | ND (< 1.2) | CBMA = 97 ; CHLFM = 1.9 ; MC = 2.1 |
| W-7A1U | | 12/16/1996 | 6.1 | 81 | 15 | ND (< 5) | ND (< 5) | ND (< 5) | - | 11 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-7A1U | Dup | 12/16/1996 | 5.9 | 81 | 15 | ND (< 5) | ND (< 5) | ND (< 5) | - | 11 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-7A1U | | 3/6/1997 | 2.8 | 71 | 12 | 1.3 | 3.3 | ND (< 1) | ND (< 1) | 9 | ND (< 1) | 1.7 | ND (< 1) | CBMA = 110 ; CHLFM = 1.4 |
| W-7A1U | | 6/6/1997 | ND (< 5) | 98 | 24 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 10 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 ; MC = 26 |
| W-7A1U | | 12/3/1997 | 4.1 | 60 | 10 | ND (< 2.5) | 3.3 | ND (< 2.5) | ND (< 2.5) | 5.4 | ND (< 2.5) | 2.9 | ND (< 2.5) | CBMA = 102 |
| W-7A1U | | 6/2/1998 | ND (< 5) | 80 | 15 | ND (< 5) | 5 | ND (< 5) | ND (< 5) | 9.6 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 109 |
| W-7A1U | | 12/9/1998 | 4.63 | 105 | 23.5 | ND (< 2.5) | 7.96 | ND (< 2.5) | ND (< 2.5) | 10.2 | ND (< 2.5) | 5.44 | ND (< 2.5) | CBMA = 96.3 |
| W-7A1U | | 6/9/1999 | 5.07 | 90.2 | 17.1 | ND (< 5.00) | 6.17 | ND (< 5.00) | ND (< 5.00) | 10.6 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| W-7A1U | | 12/8/1999 | 3.49 | 105 | 10.5 | ND (< 3.13) | 5.32 | ND (< 3.13) | ND (< 3.13) | 10.3 | ND (< 3.13) | ND (< 6.25) | ND (< 3.13) | |
| W-7A1U | | 6/7/2000 | 3.3 | 91 | 12 | ND (< 1.0) | 3.8 | ND (< 1.0) | ND (< 1.0) | 8.8 | ND (< 1.0) | 7.4 | ND (< 1.0) | |
| W-7A1U | | 12/5/2000 | ND (< 2.5) | 100 | 11 | ND (< 2.5) | 3.4 | ND (< 2.5) | ND (< 2.5) | 7.5 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-7A1U | | 6/19/2001 | 3.2 | 92 | 8.6 | ND (< 2.5) | 3.2 | ND (< 2.5) | ND (< 2.5) | 6.4 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-7A1U | | 6/25/2003 | ND (< 2.5) | 67 | 5.0 | ND (< 2.5) | 2.6 | ND (< 2.5) | ND (< 2.5) | 5.1 | ND (< 2.5) | 2.8 | ND (< 2.5) | |
| W-7A1U | | 6/22/2005 | 2.8 | 81 | 6.6 | ND (< 2.5) | 4.3 | ND (< 2.5) | ND (< 2.5) | 3.0 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-7A1U | | 6/15/2007 | 2.4 | 59 | 7.4 | 4.4 | 6.2 | ND (< 0.50) | ND (< 0.50) | 16 | ND (< 0.50) | 2.0 | ND (< 0.50) | |
| W-7A1U | | 6/10/2009 | 0.64 | 45 | 2.6 | 0.58 | 1.8 | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | 1.1 | ND (< 0.50) | |
| W-7A1U | | 6/14/2011 | 0.58 | 54 | 3.3 | 0.71 | 2.1 | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | 1.3 | ND (< 0.50) | |
| W-7A1U | | 6/18/2013 | ND (< 0.50) | 48 | 2.2 | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | 0.72 | ND (< 0.50) | |
| W-7A1U | | 6/11/2014 | 0.80 | 40 | 1.5 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | 0.62 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-8A1U | | 4/22/1991 | 4 | 73 | 39 | 9 | ND (< 3) | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-8A1U | | 7/25/1991 | 11 | 150 | 87 | 27 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 8.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| W-8A1U | | 12/9/1992 | 19 | 240 | 180 | 61 | ND (< 10) | ND (< 5) | - | 26 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-8A1U | | 3/3/1993 | 5.3 | 120 | 84 | 17 | ND (< 2.5) | 0.6 | ND (< 0.5) | 19 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.6 |
| W-8A1U | | 6/3/1993 | 5.3 | 86 | 72 | 15 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 32 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| W-8A1U | Dup | 6/3/1993 | 4.3 | 93 | 74 | 14 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 31 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| W-8A1U | | 9/7/1993 | 2.2 | 56 | 96 | 12 | ND (< 2.5) | 0.67 | ND (< 0.5) | 42 | ND (< 0.5) | 0.73 | ND (< 0.5) | CHLFM = 1.2 |
| W-8A1U | | 12/8/1993 | ND (< 5) | 77 | 88 | 13 | - | ND (< 5) | - | 41 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-8A1U | | 3/3/1994 | 1.7 | 87 | 86 | 8.9 | - | 0.75 | ND (< 0.5) | 54 | ND (< 0.5) | 1.8 | ND (< 0.5) | CHLFM = 2.2 |
| W-8A1U | | 6/8/1994 | 6.2 | 100 | 110 | 15 | - | 0.61 | ND (< 0.5) | 48 | ND (< 0.5) | 2.2 | ND (< 0.5) | CHLFM = 2.5 |
| W-8A1U | | 9/8/1994 | 2.1 | 68 | 82 | 10 | - | ND (< 0.5) | ND (< 0.5) | 46 | ND (< 0.5) | 2.8 | ND (< 0.5) | CHLFM = 1.9 |
| W-8A1U | | 12/7/1994 | ND (< 5) | 59 | 69 | 6.4 | - | ND (< 5) | - | 41 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-8A1U | | 6/8/1995 | 2.9 | 70 | 68 | 8.6 | - | ND (< 0.5) | ND (< 0.5) | 35 | ND (< 0.5) | 4.2 | ND (< 0.5) | CHLFM = 1.9 ; Freon 11 = 0.54 |
| W-8A1U | | 12/7/1995 | ND (< 5) | 38 | 51 | 5.2 | - | ND (< 5) | - | 33 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-8A1U | | 6/10/1996 | 1.8 | 50 | 49 | 5.9 | - | 1.1 | ND (< 0.5) | 31 | ND (< 0.5) | 4.6 | ND (< 0.5) | CBMA = 114 ; CHLFM = 2 ; Freon 11 = 0.98 ; MC = 0.22 |
| W-8A1U | | 12/13/1996 | ND (< 5) | 44 | 56 | ND (< 5) | - | ND (< 5) | - | 34 | ND (< 5) | 7.7 | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| W-9A1U/A1 | | 12/12/1990 | 2.5 | 81 | 110 | 19 | 31 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 4.8 ; CHLMA = 15 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| W-9A1U/A1 | | 4/16/1991 | ND (< 2.5) | 97 | 88 | 16 | - | ND (< 2.5) | ND (< 2.5) | 110 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-9A1U/A1 | Dup | 4/16/1991 | 2.7 | - | 72 | 19 | - | 0.5 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-9A1U/A1 | Dup | 4/16/1991 | 2.7 | 110 | 72 | 19 | 29 | 0.5 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.7 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.5 |
| W-9A1U/A1 | | 7/26/1991 | 3.9 | 130 | 120 | 24 | - | 0.8 | ND (< 0.5) | 150 | 17 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.7 |
| W-9A1U/A1 | | 11/5/1991 | 4.8 | 140 | 160 | ND (< 0.5) | 0.7 | 1 | ND (< 0.5) | 220 | 0.7 | ND (< 0.5) | ND (< 0.5) | |
| W-9A1U/A1 | | 12/5/1991 | ND (< 5) | 130 | 110 | 30 | ND (< 10) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-9A1U/A1 | | 3/5/1992 | 3.2 | 97 | 110 | 20 | ND (< 5) | ND (< 1) | ND (< 1) | 130 | ND (< 1) | 1.4 | ND (< 1) | CHLFM = 5.2 |
| W-9A1U/A1 | | 6/11/1992 | 4.8 | 130 | 110 | 20 | - | 1.2 | ND (< 0.5) | 150 | 1.2 | 2.3 | ND (< 0.5) | CHLFM = 6.4 |
| W-9A1U/A1 | | 9/18/1992 | 3.6 | 120 | 140 | 18 | ND (< 5) | 2 | ND (< 1) | 150 | ND (< 1) | 2.8 | ND (< 1) | CHLFM = 8.4 |
| W-9A1U/A1 | | 12/10/1992 | ND (< 5) | 120 | 150 | 17 | - | ND (< 5) | - | 190 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-9A1U/A1 | | 3/10/1993 | 4.8 | 130 | 190 | 19 | ND (< 5) | 1.2 | ND (< 1) | 140 | ND (< 1) | 3.2 | ND (< 1) | CHLFM = 8 |
| W-9A1U/A1 | | 6/2/1993 | 3.8 | 140 | 140 | 16 | ND (< 2.5) | 0.5 | ND (< 0.5) | 150 | ND (< 0.5) | 2 | ND (< 0.5) | |
| W-9A1U/A1 | | 9/8/1993 | 3.8 | 130 | 170 | 13 | ND (< 2.5) | 0.63 | ND (< 0.5) | 120 | ND (< 0.5) | 3.9 | ND (< 0.5) | CHLFM = 3.6 ; Freon 11 = 0.84 |
| W-9A1U/A1 | Dup | 9/8/1993 | 3.8 | 120 | 150 | 14 | - | 0.79 | ND (< 0.5) | 110 | 0.75 | 4.7 | ND (< 0.5) | CHLFM = 3.9 ; Freon 11 = 1.1 |
| W-9A1U/A1 | | 12/8/1993 | ND (< 5) | 120 | 120 | 13 | - | ND (< 5) | - | 110 | ND (< 5) | 5.4 | ND (< 10) | Acetone = 23 |
| W-9A1U/A1 | | 3/4/1994 | 4.8 | 120 | 110 | 10 | - | ND (< 0.5) | ND (< 0.5) | 86 | 0.58 | 3 | ND (< 0.5) | CHLFM = 2.8 |
| W-9A1U/A1 | | 6/8/1994 | 8.3 | 140 | 150 | 12 | - | 1.2 | ND (< 0.5) | 110 | 0.69 | 5.1 | ND (< 0.5) | CHLFM = 4.1 |
| W-9A1U/A1 | | 12/6/1994 | ND (< 5) | 130 | 110 | 13 | - | ND (< 5) | - | 88 | ND (< 5) | 7.1 | ND (< 10) | |
| W-9A1U/A1 | | 6/8/1995 | 3.6 | 92 | 81 | 9.5 | - | ND (< 0.5) | ND (< 0.5) | 64 | 0.64 | 5.2 | ND (< 0.5) | CHLFM = 5.2 ; Freon 11 = 0.54 |
| W-9A1U/A1 | | 12/7/1995 | ND (< 5) | 100 | 75 | 9.2 | 16 | ND (< 5) | - | 65 | - | 5.5 | ND (< 10) | |
| W-9A1U/A1 | | 6/10/1996 | 3.8 | 81 | 50 | 8 | 9.4 | ND (< 2.5) | ND (< 2.5) | 50 | ND (< 2.5) | 4.5 | ND (< 2.5) | CBMA = 113 ; CHLFM = 2.6 |
| W-9A1U/A1 | | 12/16/1996 | ND (< 5) | 100 | 73 | 12 | 14 | ND (< 5) | - | 72 | ND (< 5) | 7.8 | ND (< 10) | |
| W-9A1U/A1 | | 12/10/1997 | 4.5 | 83 | 34 | 6.6 | 8.5 | ND (< 1) | ND (< 1) | 37 | ND (< 1) | 5.5 | ND (< 1) | CBMA = 97 ; CHLFM = 3.4 |
| | | | | | | | | | | | | | | |
| W-10A1U | | 12/14/1990 | 2 | 67 | 3.5 | 4 | 3 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| W-10A1U | | 4/17/1991 | 3 | ND (< 1) | 8 | 4 | - | 110 | ND (< 1) | 1 | ND (< 1) | ND (< 1) | ND (< 1) | Acetone = 100 |
| W-10A1U | | 7/23/1991 | 3.3 | 120 | 7.6 | 3.2 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.5 |
| W-10A1U | Dup | 7/23/1991 | 3.1 | 120 | 7 | 3.1 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 11/5/1991 | 3.7 | 110 | 7 | 3.9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 1.3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| W-10A1U | Dup | 11/5/1991 | 4.5 | 140 | 8.8 | 4.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| W-10A1U | | 12/5/1991 | ND (< 5) | 140 | 6.4 | ND (< 5) | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-10A1U | | 3/10/1992 | 3.5 | 120 | 6.7 | 3.3 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.6 |
| W-10A1U | | 6/8/1992 | 2.7 | 83 | 5.2 | 2.4 | ND (< 1) | ND (< 0.5) | ND (< 0.5) | 0.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-10A1U | | 9/16/1992 | 3 | 110 | 6.1 | 3.2 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 12/11/1992 | ND (< 5) | 110 | 5.8 | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-10A1U | | 3/4/1993 | 3.1 | 110 | 5.1 | 2.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 6/4/1993 | 2.7 | 90 | 4.2 | 1.6 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 9/9/1993 | 2.1 | 59 | 2.8 | 2.8 | - | ND (< 0.5) | ND (< 0.5) | 0.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 12/8/1993 | ND (< 5) | 84 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-10A1U | | 3/4/1994 | 2 | 88 | 1.9 | 2.1 | - | 0.83 | ND (< 0.5) | 0.94 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1,1,2-TCA = 0.83 ; CHLFM = 0.52 ; MC = 0.5 |
| W-10A1U | | 6/8/1994 | 6.4 | 92 | 3.8 | 2.5 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 9/8/1994 | 3.4 | 90 | 3.7 | 3.8 | - | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 12/7/1994 | ND (< 5) | 66 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-10A1U | | 3/7/1995 | 3.1 | 92 | 2.7 | 3.8 | - | ND (< 0.5) | ND (< 0.5) | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 6/8/1995 | 2.4 | 82 | 3 | 4.2 | - | ND (< 0.5) | ND (< 0.5) | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-10A1U | | 9/7/1995 | 3.6 | 96 | 6.8 | 6.2 | - | ND (< 2.5) | ND (< 2.5) | 3.2 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-10A1U | | 12/8/1995 | ND (< 5) | 120 | ND (< 5) | 7 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-10A1U | | 3/7/1996 | 3.7 | 110 | 7 | 7 | 9.4 | ND (< 2.5) | ND (< 2.5) | 3.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | MC = 2.5 |
| W-10A1U | | 6/11/1996 | 4.1 | 110 | 8 | 7.6 | 11 | ND (< 2.5) | ND (< 2.5) | 5.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 95 |
| W-10A1U | | 9/12/1996 | 4.3 | 120 | 8 | 8.5 | 13 | ND (< 1.2) | ND (< 1.2) | 6.8 | ND (< 1.2) | ND (< 1.2) | ND (< 1.2) | CBMA = 98 ; MC = 2.4 |
| W-10A1U | | 12/13/1996 | ND (< 5) | 120 | ND (< 5) | 8.7 | 10 | ND (< 5) | - | 6 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-10A1U | | 3/6/1997 | 3.7 | 110 | 7.6 | 7.6 | 9.4 | ND (< 2.5) | ND (< 2.5) | 5.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 117 |
| W-10A1U | | 6/5/1997 | 4.3 | 100 | 9 | 8.6 | 10 | ND (< 2.5) | ND (< 2.5) | 6.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 100 |
| W-10A1U | | 12/3/1997 | 4 | 77 | 8.1 | 4.6 | 7.2 | ND (< 2.5) | ND (< 2.5) | 5.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 102 |
| W-10A1U | | 6/2/1998 | ND (< 2.5) | 67 | 4 | ND (< 2.5) | 3 | ND (< 2.5) | ND (< 2.5) | 3.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 111 |
| W-10A1U | Dup | 6/2/1998 | ND (< 2.5) | 72 | 4.3 | 2.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 3.3 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 116 |
| W-10A1U | | 12/8/1998 | ND (< 2.5) | 59.7 | 5.65 | 2.6 | 5.51 | ND (< 2.5) | ND (< 2.5) | 4.54 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 88 |
| W-10A1U | | 6/8/1999 | ND (< 5.00) | 98.6 | 12.8 | ND (< 5.00) | 9.52 | ND (< 5.00) | ND (< 5.00) | 8.37 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| W-10A1U | Dup | 6/8/1999 | 3.72 | 97.6 | 11.1 | 4.68 | 8.77 | ND (< 2.50) | ND (< 2.50) | 7.55 | ND (< 2.50) | ND (< 2.50) | ND (< 2.50) | |
| W-10A1U | | 12/10/1999 | 2.83 | 66.7 | 12.1 | 2.99 | 5.32 | ND (< 2.5) | ND (< 2.5) | 5.15 | ND (< 2.5) | ND (< 5) | ND (< 2.5) | |
| W-10A1U | | 6/8/2000 | 2.5 | 69 | 7.8 | 1.8 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 3.8 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-10A1U | | 12/5/2000 | 2.9 | 77 | 12 | 2.4 | 6.6 | ND (< 1.0) | ND (< 1.0) | 6.2 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| W-10A1U | | 6/19/2001 | 2.5 | 56 | 6.9 | 1.4 | 3.4 | ND (< 1.0) | ND (< 1.0) | 3.5 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| W-10A1U | | 6/25/2003 | 2.2 | 48 | 4.1 | 1.1 | 3.1 | ND (< 1.0) | ND (< 1.0) | 2.1 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | |
| W-10A1U | | 6/20/2005 | 0.84 | 25 | 1.9 | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-10A1U | | 6/14/2007 | 1.4 | 50 | 2.5 | 0.60 | 2.0 | ND (< 0.50) | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-10A1U | | 6/10/2009 | 0.88 | 34 | 0.91 | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-10A1U | | 6/14/2011 | 1.4 | 50 | 1.4 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | 2.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-10A1U | | 6/18/2013 | 1.1 | 34 | 0.75 | ND (< 0.50) | 0.80 | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-11A1U | | 12/12/1990 | 2 | 100 | 16 | 4 | 14 | 3 | 0.5 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 0.5 ; 1,4-DCB = 0.5 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.5 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 0.5 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.5 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.5 ; o-Xylene = 0.5 ; Toluene = 0.5 ; trans-1,3-DCP = 3 ; Xylenes = 0.5 |
| W-11A1U | | 4/15/1991 | 1 | 170 | 22 | 6 | ND (< 10) | ND (< 0.5) | ND (< 0.5) | 4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| W-11A1U | | 5/3/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| W-11A1U | | 7/24/1991 | ND (< 0.5) | 44 | 4.5 | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-11A1U | | 10/7/1991 | ND (< 0.5) | 200 | 21 | 7.9 | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 4.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-11A1U | | 12/10/1991 | ND (< 5) | 200 | 13 | 7.7 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-11A1U | | 3/10/1992 | ND (< 0.5) | 170 | 13 | 5.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| W-11A1U | | 6/8/1992 | ND (< 0.5) | 270 | 16 | 7.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| W-11A1U | | 9/18/1992 | ND (< 0.5) | 200 | 20 | 7.7 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.2 |
| W-11A1U | Dup | 9/18/1992 | ND (< 0.5) | 190 | 18 | 7.3 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| W-11A1U | | 12/11/1992 | ND (< 5) | 180 | 14 | 7.3 | - | ND (< 5) | - | 5.4 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-11A1U | | 3/4/1993 | ND (< 0.5) | 160 | 16 | 9 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 3.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.3 |
| W-11A1U | | 6/8/1993 | ND (< 0.5) | 140 | 11 | 11 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 4.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-11A1U | | 9/8/1993 | ND (< 0.5) | 120 | 8.9 | 14 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 5.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.83 |
| W-11A1U | | 12/8/1993 | ND (< 5) | 120 | 6.3 | 14 | - | ND (< 5) | - | 5.1 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-11A1U | | 3/4/1994 | ND (< 0.5) | 140 | 7.5 | 15 | - | ND (< 0.5) | ND (< 0.5) | 5.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.89 |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-11A1U | | 6/8/1994 | 1.2 | 190 | 18 | 32 | - | ND (< 1) | ND (< 1) | 9.5 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.8 ; MC = 2.4 |
| W-11A1U | | 12/7/1994 | ND (< 5) | 150 | 16 | 25 | - | ND (< 5) | - | 7.1 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-11A1U | | 6/8/1995 | ND (< 2.5) | 170 | 23 | 18 | - | ND (< 2.5) | ND (< 2.5) | 9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-11A1U | | 12/7/1995 | 9.3 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-11A1U | | 6/7/1996 | ND (< 5) | 190 | 30 | 7.6 | 16 | ND (< 5) | ND (< 5) | 5.7 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 101 ; MC = 6.2 |
| W-11A1U | | 12/13/1996 | ND (< 5) | 140 | 14 | 5.3 | 12 | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-11A1U | | 12/3/1997 | ND (< 2.5) | 130 | 15 | 3.3 | 8.3 | ND (< 2.5) | ND (< 2.5) | 3.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 92 |
| W-11A1U | | 12/9/1998 | ND (< 2.5) | 146 | 13.2 | ND (< 2.5) | 6.42 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 96.3 |
| W-11A1U | | 12/10/1999 | ND (< 4.17) | 113 | 6.53 | ND (< 4.17) | ND (< 4.17) | ND (< 4.17) | ND (< 4.17) | ND (< 4.17) | ND (< 4.17) | ND (< 8.33) | ND (< 4.17) | |
| W-11A1U | | 12/5/2000 | ND (< 2.5) | 120 | 4.4 | ND (< 2.5) | 2.5 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-11A1U | | 6/19/2001 | ND (< 2.5) | 110 | 3.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-11A1U | | 6/25/2003 | ND (< 2.5) | 63 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-11A1U | | 6/21/2005 | ND (< 2.5) | 52 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-11A1U | | 6/15/2007 | ND (< 0.50) | 45 | 1.1 | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | 0.86 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-11A1U | | 6/10/2009 | ND (< 0.50) | 45 | 0.75 | ND (< 0.50) | 0.99 | ND (< 0.50) | ND (< 0.50) | 0.85 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-11A1U | Dup | 6/10/2009 | ND (< 0.50) | 48 | 1.0 | 0.55 | 0.84 | ND (< 0.50) | ND (< 0.50) | 0.79 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-11A1U | | 6/14/2011 | ND (< 0.50) | 48 | 0.85 | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-11A1U | | 6/18/2013 | ND (< 0.50) | 45 | 0.76 | ND (< 0.50) | 0.88 | ND (< 0.50) | ND (< 0.50) | 0.95 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-12A1U | | 12/18/1990 | 750 | 130 | 10 | 4.6 | 26 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| W-12A1U | | 2/7/1991 | 3,900 | 110 | 30 | 40 | 57 | 30 | 100 | - | - | 100 | 30 | 1,1,2,2-TCA = 30 ; 1,1,2-TCA = 20 ; 1,2-DCPA = 20 ; 1,3-DCB = 100 ; 1,4-DCB = 100 ; 2-CVE = 40 ; BDCHLMA = 40 ; BRFM = 50 ; BRMA = 50 ; CHLBZ = 40 ; CHLEA = 50 ; CHLFM = 20 ; CHLMA = 50 ; cis-1,3-DCP = 30 ; CT = 30 ; DBCM = 40 ; EDB = 100 ; Freon 11 = 50 ; MC = 500 ; trans-1,3-DCP = 30 |
| W-12A1U | | 4/10/1991 | 6,100 | 280 | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 5) | ND (< 100) | ND (< 100) | ND (< 100) | ND (< 100) | |
| W-12A1U | | 7/24/1991 | 3,700 | 300 | 18 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 32 | ND (< 12) | ND (< 12) | ND (< 12) | |
| W-12A1U | | 10/8/1991 | 2,500 | 270 | 12 | ND (< 12) | ND (< 25) | ND (< 12) | ND (< 12) | 25 | ND (< 12) | ND (< 12) | ND (< 12) | |
| W-12A1U | | 12/9/1991 | 3,400 | 320 | ND (< 10) | ND (< 10) | ND (< 120) | ND (< 10) | - | - | ND (< 10) | ND (< 10) | ND (< 20) | |
| W-12A1U | | 3/10/1992 | 9,200 | 310 | ND (< 25) | ND (< 25) | ND (< 100) | ND (< 25) | ND (< 25) | 30 | ND (< 25) | ND (< 25) | ND (< 25) | |
| W-12A1U | | 6/15/1992 | 6,600 | 280 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 65 | ND (< 25) | ND (< 25) | ND (< 25) | |
| W-12A1U | | 9/11/1992 | 3,800 | 260 | 8 | 5 | ND (< 50) | ND (< 5) | ND (< 5) | 47 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-12A1U | Dup | 9/11/1992 | 3,600 | 250 | ND (< 10) | ND (< 10) | ND (< 50) | ND (< 10) | ND (< 10) | 38 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-12A1U | | 12/10/1992 | 1,600 | 100 | ND (< 5) | ND (< 5) | ND (< 50) | ND (< 5) | - | 24 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-12A1U | | 3/2/1993 | 6,900 | 330 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 75 | ND (< 25) | ND (< 25) | ND (< 25) | |
| W-12A1U | | 6/7/1993 | 3,200 | 460 | 12 | ND (< 10) | ND (< 50) | ND (< 10) | ND (< 10) | 220 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-12A1U | | 9/8/1993 | 2,300 | 210 | 6.5 | ND (< 5) | ND (< 25) | ND (< 5) | ND (< 5) | 42 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-12A1U | | 12/6/1993 | 1,400 | 200 | ND (< 10) | ND (< 10) | - | ND (< 10) | - | 22 | ND (< 10) | ND (< 10) | ND (< 20) | |
| W-12A1U | | 3/2/1994 | 2,000 | 300 | 9.8 | 7.4 | - | ND (< 5) | ND (< 5) | 35 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-12A1U | | 6/8/1994 | 1,200 | 130 | 7.2 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-12A1U | Dup | 6/8/1994 | 1,300 | 120 | 9.1 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-12A1U | | 9/8/1994 | 1,200 | 200 | 8.9 | ND (< 5) | - | ND (< 5) | ND (< 5) | 8.5 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-12A1U | | 12/6/1994 | 430 | 100 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | - | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 25) | |
| W-12A1U | | 3/7/1995 | 2,400 | 240 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | |
| W-12A1U | | 6/7/1995 | 1,200 | 140 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | MC = 26 |
| W-12A1U | | 9/7/1995 | 880 | 250 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | |
| W-12A1U | | 11/17/1995 | 240 | 150 | 18 | ND (< 5) | - | ND (< 5) | ND (< 5) | 6 | ND (< 5) | ND (< 5) | ND (< 5) | CHLFM = 5.1 |
| W-12A1U | | 12/11/1995 | 190 | 130 | 11 | ND (< 5) | - | ND (< 5) | - | 5.2 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-12A1U | | 3/7/1996 | 670 | 250 | 28 | ND (< 12) | ND (< 12) | ND (< 12) | ND (< 12) | 39 | ND (< 12) | ND (< 12) | ND (< 12) | |
| | | | | | | | | | | | | | | |
| W-12A1U-R | | 6/10/1996 | 380 | 180 | 11 | 6.2 | 13 | ND (< 5) | ND (< 5) | 27 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 109 |
| W-12A1U-R | | 9/13/1996 | 190 | 140 | 19 | 5.7 | 11 | ND (< 5) | ND (< 5) | 45 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 104 |
| W-12A1U-R | | 12/16/1996 | 66 | 110 | 6.4 | ND (< 5) | 7.8 | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-12A1U-R | | 3/7/1997 | 47 | 100 | 11 | 2.6 | 6.8 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 104 |
| W-12A1U-R | | 6/9/1997 | 32 | 71 | 7 | 2.9 | 6.1 | ND (< 0.5) | ND (< 0.5) | 3 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 107 ; CHLFM = 0.89 |
| W-12A1U-R | | 9/11/1997 | 50 | 100 | 9.8 | 2.6 | 6.8 | ND (< 1) | ND (< 1) | 3 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 95 |
| W-12A1U-R | | 12/3/1997 | 10 | 61 | 6 | 1.8 | 4.3 | ND (< 1) | ND (< 1) | 1.5 | ND (< 1) | ND (< 1) | ND (< 1) | CBMA = 97 |
| W-12A1U-R | | 6/2/1998 | 11 | 120 | 7.7 | ND (< 5) | 6.4 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 113 |
| W-12A1U-R | | 12/8/1998 | 15.9 | 79.7 | 5.44 | ND (< 2.5) | 4.71 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 87.3 |
| W-12A1U-R | | 6/8/1999 | ND (< 5.00) | 93.7 | 7.17 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| W-12A1U-R | | 12/14/1999 | 5.48 | 81.8 | ND (< 3.13) | ND (< 3.13) | 3.63 | ND (< 3.13) | ND (< 3.13) | ND (< 3.13) | ND (< 3.13) | ND (< 3.13) | ND (< 3.13) | |
| W-12A1U-R | | 6/7/2000 | 6.2 | 48 | 1.8 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 2.4 |
| W-12A1U-R | | 12/5/2000 | 10 | 80 | 3.4 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | CHLFM = 3.3 |
| W-12A1U-R | | 6/19/2001 | 3.4 | 40 | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.1 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | CHLFM = 1.8 |
| W-12A1U-R | | 6/25/2003 | 4.1 | 58 | 3.6 | 0.68 | 2.2 | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.61 |
| W-12A1U-R | | 6/20/2005 | 14 | 51 | 1.6 | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | 2.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-12A1U-R | | 6/14/2007 | 11 | 57 | 1.2 | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-12A1U-R | | 6/10/2009 | 7.9 | 45 | 0.70 | ND (< 0.50) | 0.79 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-12A1U-R | | 6/14/2011 | 6.1 | 46 | 0.65 | ND (< 0.50) | 0.92 | ND (< 0.50) | ND (< 0.50) | 0.55 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-12A1U-R | | 6/18/2013 | 4.2 | 37 | ND (< 0.50) | ND (< 0.50) | 0.61 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-13A2 | | 12/17/1990 | 0.2 | 0.5 | 0.3 | 0.4 | 0.3 | 0.3 | 1 | - | - | 1 | 0.3 | 1,1,2,2-TCA = 0.3 ; 1,1,2-TCA = 0.2 ; 1,2-DCPA = 0.2 ; 1,3-DCB = 1 ; 1,4-DCB = 1 ; 2-CVE = 0.4 ; Acetone = 30 ; BDCHLMA = 0.4 ; Benzene = 0.5 ; BRFM = 0.5 ; BRMA = 0.5 ; CHLBZ = 0.4 ; CHLEA = 0.5 ; CHLFM = 0.2 ; CHLMA = 0.5 ; cis-1,3-DCP = 0.3 ; CT = 0.3 ; DBCM = 0.4 ; EDB = 1 ; Ethylbenzene = 0.5 ; Freon 11 = 0.5 ; MC = 5 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.5 ; trans-1,3-DCP = 0.3 ; Xylenes = 0.9 |
| W-13A2 | | 4/17/1991 | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 7/23/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 11/5/1991 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 12/5/1991 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-13A2 | | 3/12/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 6/11/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 9/17/1992 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 12/10/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-13A2 | | 3/5/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 6/7/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 9/9/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 12/8/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-13A2 | | 3/4/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 6/8/1994 | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 9/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | Dup | 9/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-13A2 | | 3/7/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 6/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 9/5/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 12/5/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-13A2 | | 3/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-13A2 | | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 118 |
| W-13A2 | Dup | 6/5/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 109 |
| W-13A2 | | 9/11/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| W-13A2 | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-13A2 | | 6/5/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 94 |
| W-13A2 | | 12/3/1997 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 87 |
| W-13A2 | | 6/2/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 113 |
| W-13A2 | | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 105 |
| W-13A2 | Dup | 12/8/1998 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 79 |
| W-13A2 | | 6/8/1999 | ND (< 5.00) | 96.6 | ND (< 5.00) | ND (< 5.00) | 8.92 | ND (< 5.00) | ND (< 5.00) | 7.43 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| W-13A2 | | 12/10/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| W-13A2 | | 6/8/2000 | ND (< 0.50) | 0.94 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-13A2 | Dup | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-13A2 | | 12/5/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-13A2 | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-13A2 | | 6/27/2002 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/25/2003 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/22/2004 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.73 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/27/2006 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/10/2008 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.70 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.68 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/10/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/8/2010 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.85 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/14/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/12/2012 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.86 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-13A2 | | 6/10/2014 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-14A1U/A1 | | 12/18/1990 | 66 | 140 | 14 | 4 | 16 | 3 | 10 | - | - | 10 | 3 | 1,1,2,2-TCA = 3 ; 1,1,2-TCA = 2 ; 1,2-DCPA = 2 ; 1,3-DCB = 10 ; 1,4-DCB = 10 ; 2-CVE = 4 ; Acetone = 30 ; BDCHLMA = 4 ; Benzene = 0.3 ; BRFM = 5 ; BRMA = 5 ; CHLBZ = 4 ; CHLEA = 5 ; CHLFM = 2.2 ; CHLMA = 5 ; cis-1,3-DCP = 3 ; CT = 3 ; DBCM = 4 ; EDB = 10 ; Ethylbenzene = 0.3 ; Freon 11 = 5 ; MC = 50 ; m-Xylene = 0.3 ; o-Xylene = 0.3 ; Toluene = 0.3 ; trans-1,3-DCP = 3 ; Xylenes = 0.9 |
| W-14A1U/A1 | | 4/15/1991 | 88 | 210 | 18 | 3 | - | ND (< 0.5) | ND (< 0.5) | 19 | 1 | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| W-14A1U/A1 | Dup | 4/15/1991 | 92 | 220 | 18 | 3 | ND (< 10) | ND (< 0.5) | ND (< 0.5) | 19 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 ; MC = 1 |
| W-14A1U/A1 | | 5/3/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| W-14A1U/A1 | Dup | 5/3/1991 | - | - | - | - | - | - | - | - | - | - | - | |
| W-14A1U/A1 | | 7/23/1991 | 130 | 230 | 18 | 3 | ND (< 2.5) | ND (< 1) | ND (< 1) | 18 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-14A1U/A1 | | 10/8/1991 | 120 | 290 | 18 | ND (< 0.5) | ND (< 5) | ND (< 0.5) | ND (< 0.5) | 26 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-14A1U/A1 | | 12/5/1991 | 130 | 250 | 17 | ND (< 5) | ND (< 10) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-14A1U/A1 | | 3/10/1992 | 51 | 150 | 9.1 | 2.6 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| W-14A1U/A1 | | 6/4/1992 | 64 | 200 | 10 | 2.5 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 12 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.8 |
| W-14A1U/A1 | | 9/16/1992 | 110 | 280 | 17 | 2.6 | ND (< 5) | ND (< 1) | ND (< 1) | 19 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.6 |
| W-14A1U/A1 | | 12/14/1992 | 99 | 250 | 13 | ND (< 5) | ND (< 8.4) | ND (< 5) | - | 24 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-14A1U/A1 | | 3/3/1993 | 68 | 220 | 15 | 3.2 | ND (< 5) | ND (< 1) | ND (< 1) | 6 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-14A1U/A1 | | 6/3/1993 | 56 | 260 | 14 | 1.8 | ND (< 5) | ND (< 1) | ND (< 1) | 7.6 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-14A1U/A1 | | 9/7/1993 | 170 | 290 | 16 | 2.6 | - | ND (< 1) | ND (< 1) | 55 | 2.1 | ND (< 1) | ND (< 1) | CHLFM = 1.9 |
| W-14A1U/A1 | | 12/6/1993 | 210 | 260 | 11 | ND (< 5) | - | ND (< 5) | - | 38 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-14A1U/A1 | | 3/3/1994 | 280 | 340 | 18 | 3.9 | - | ND (< 1) | ND (< 1) | 21 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.7 |
| W-14A1U/A1 | | 6/8/1994 | 280 | 360 | 22 | 7 | - | ND (< 1) | ND (< 1) | 21 | 1.2 | ND (< 1) | ND (< 1) | CHLFM = 2.7 |
| W-14A1U/A1 | | 9/8/1994 | 110 | 180 | 10 | 5 | - | ND (< 1) | ND (< 1) | 15 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-14A1U/A1 | | 12/7/1994 | 65 | 110 | ND (< 5) | ND (< 5) | - | ND (< 5) | - | 7.9 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-14A1U/A1 | | 3/7/1995 | 60 | 200 | 13 | 4.8 | - | ND (< 1) | ND (< 1) | 5.6 | ND (< 1) | ND (< 1) | ND (< 1) | CHLFM = 1.1 |
| W-14A1U/A1 | | 6/7/1995 | 22 | 180 | 19 | 2.2 | - | ND (< 1) | ND (< 1) | 2.5 | ND (< 1) | ND (< 1) | ND (< 1) | |
| W-14A1U/A1 | | 11/9/1995 | 34 | 130 | ND (< 5) | ND (< 5) | 5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-14A1U/A1 | Dup | 11/9/1995 | 33 | 150 | 12 | ND (< 5) | - | ND (< 5) | ND (< 5) | 5.2 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-14A1U/A1 | | 12/7/1995 | ND (< 5) | 140 | 18 | 6.3 | - | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-14A1U/A1 | | 3/7/1996 | 16 | 160 | 26 | 3.8 | 12 | ND (< 2.5) | ND (< 2.5) | 4.6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-14A1U/A1 | | 6/10/1996 | 12 | 190 | 24 | ND (< 5) | 13 | ND (< 5) | ND (< 5) | 5.9 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 114 |
| W-14A1U/A1 | | 9/12/1996 | 15 | 190 | 26 | 4.4 | 15 | ND (< 2.5) | ND (< 2.5) | 28 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 97 ; MC = 4.8 |
| W-14A1U/A1 | | 12/13/1996 | 15 | 120 | 12 | ND (< 5) | 8.2 | ND (< 5) | - | 39 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-14A1U/A1 | | 3/6/1997 | 15 | 160 | 23 | 3.5 | 13 | ND (< 2.5) | ND (< 2.5) | 17 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 113 |
| W-14A1U/A1 | | 6/6/1997 | 32 | 150 | 30 | 4.6 | 16 | ND (< 2.5) | ND (< 2.5) | 18 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 ; MC = 12 |
| W-14A1U/A1 | | 9/11/1997 | 26 | 130 | 22 | 3.4 | 11 | ND (< 2.5) | ND (< 2.5) | 16 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 115 |
| W-14A1U/A1 | | 12/9/1997 | 10 | 51 | 7.2 | ND (< 2.5) | 4 | ND (< 2.5) | ND (< 2.5) | 6 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 94 |
| | | | | | | | | | | | | | | |
| W-16A1 | | 9/18/1992 | 14,000 | 380 | 100 | ND (< 50) | ND (< 250) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | |
| W-16A1 | | 12/15/1992 | 10,000 | 320 | 75 | 8.7 | - | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-16A1 | | 3/5/1993 | 5,200 | 110 | 36 | ND (< 10) | ND (< 50) | ND (< 10) | ND (< 10) | 10 | ND (< 10) | ND (< 10) | ND (< 10) | CHLBZ = 12 |
| W-16A1 | | 6/4/1993 | 3,700 | 180 | 39 | ND (< 5) | ND (< 50) | ND (< 5) | ND (< 5) | 17 | ND (< 5) | ND (< 5) | ND (< 5) | CHLBZ = 10 |
| W-16A1 | | 9/8/1993 | 3,800 | 110 | 18 | ND (< 10) | ND (< 50) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 12/6/1993 | 5,100 | 150 | 32 | ND (< 25) | - | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| W-16A1 | | 3/2/1994 | 4,100 | 210 | 39 | ND (< 10) | - | ND (< 10) | ND (< 10) | 22 | ND (< 10) | ND (< 10) | ND (< 10) | CHLBZ = 12 |
| W-16A1 | | 6/8/1994 | 4,500 | 140 | 50 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | MC = 48 |
| W-16A1 | | 9/8/1994 | 3,900 | 190 | 33 | ND (< 10) | - | ND (< 10) | ND (< 10) | 12 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 12/6/1994 | 3,300 | 210 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | - | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 100) | |
| W-16A1 | | 3/7/1995 | 2,900 | 150 | 15 | ND (< 10) | - | ND (< 10) | ND (< 10) | 13 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | Dup | 3/7/1995 | 2,900 | 160 | 13 | ND (< 10) | - | ND (< 10) | ND (< 10) | 12 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 6/8/1995 | 1,900 | 180 | 35 | ND (< 10) | - | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 9/8/1995 | 2,900 | 310 | 77 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | MC = 150 |
| W-16A1 | | 11/17/1995 | 1,900 | 160 | 49 | ND (< 10) | - | ND (< 10) | ND (< 10) | 16 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 12/11/1995 | 3,000 | 170 | 43 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 13 | ND (< 5) | ND (< 5) | ND (< 5) | |
| W-16A1 | | 4/4/1996 | 2,400 | 310 | 81 | ND (< 50) | ND (< 50) | ND (< 50) | ND (< 50) | 54 | ND (< 50) | ND (< 50) | ND (< 50) | |
| W-16A1 | | 6/11/1996 | 1,300 | 150 | 44 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 40 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 95 |
| W-16A1 | Dup | 6/11/1996 | 1,300 | 150 | 44 | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 25) | 40 | ND (< 25) | ND (< 25) | ND (< 25) | CBMA = 96 |
| W-16A1 | | 9/13/1996 | 860 | 320 | 72 | ND (< 12) | 38 | ND (< 12) | ND (< 12) | 14 | ND (< 12) | ND (< 12) | ND (< 12) | CBMA = 101 ; MC = 13 |
| W-16A1 | | 12/16/1996 | 560 | 230 | 41 | ND (< 25) | ND (< 25) | ND (< 25) | - | ND (< 25) | ND (< 25) | ND (< 25) | ND (< 50) | |
| W-16A1 | | 3/7/1997 | 460 | 310 | 39 | ND (< 10) | 17 | ND (< 10) | ND (< 10) | 12 | ND (< 10) | ND (< 10) | ND (< 10) | CBMA = 106 |
| W-16A1 | | 6/9/1997 | 41 | 82 | 11 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | 6.8 | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 |
| W-16A1 | | 9/11/1997 | 110 | 220 | 24 | 5.8 | 11 | ND (< 2.5) | ND (< 2.5) | 9.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 |
| W-16A1 | Dup | 9/11/1997 | 110 | 230 | 25 | 5.9 | 12 | ND (< 2.5) | ND (< 2.5) | 9.1 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 103 |
| W-16A1 | | 12/4/1997 | 68 | 140 | 19 | 4.5 | 12 | ND (< 1.2) | ND (< 1.2) | 6.6 | ND (< 1.2) | 1.3 | ND (< 1.2) | CBMA = 96 |
| W-16A1 | | 6/2/1998 | 35 | 130 | 9.3 | ND (< 5) | 5.3 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | CBMA = 103 |
| W-16A1 | | 12/11/1998 | 40.8 | 130 | 15.4 | 3.96 | 10.5 | ND (< 2.5) | ND (< 2.5) | 6.15 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | CBMA = 96 |
| W-16A1 | | 6/8/1999 | 48.4 | 223 | 21.4 | ND (< 5.00) | 13.0 | ND (< 5.00) | ND (< 5.00) | 7.39 | ND (< 5.00) | ND (< 5.00) | ND (< 5.00) | |
| W-16A1 | Dup | 6/8/1999 | 49.8 | 224 | 22.3 | ND (< 10.0) | 14.4 | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | ND (< 10.0) | |
| W-16A1 | | 12/10/1999 | 34.9 | 135 | 16.1 | ND (< 5) | 9.23 | ND (< 5) | ND (< 5) | 6.02 | ND (< 5) | ND (< 10) | ND (< 5) | |
| W-16A1 | Dup | 12/10/1999 | 32.9 | 133 | 15.2 | ND (< 5) | 8.87 | ND (< 5) | ND (< 5) | 5.81 | ND (< 5) | ND (< 10) | ND (< 5) | |
| W-16A1 | | 6/8/2000 | 45 | 150 | 6.0 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | |
| W-16A1 | | 12/5/2000 | 35 | 190 | 14 | 3.6 | 9.6 | ND (< 2.5) | ND (< 2.5) | 9.6 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-16A1 | | 6/19/2001 | 140 | 150 | 11 | 2.8 | 7.5 | ND (< 2.5) | ND (< 2.5) | 7.8 | ND (< 2.5) | ND (< 10) | ND (< 2.5) | |
| W-16A1 | | 6/26/2003 | 310 | 110 | 10 | ND (< 2.5) | 6.8 | ND (< 2.5) | ND (< 2.5) | 6.7 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | |
| W-16A1 | | 6/20/2005 | 620 | 85 | 12 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 6/14/2007 | 840 | 67 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 6/10/2009 | 630 | 51 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 6/14/2011 | 730 | 47 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 4/4/2013 | 510 | 33 | 0.62 | ND (< 0.50) | 0.67 | ND (< 0.50) | ND (< 0.50) | 1.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-16A1 | | 6/18/2013 | 25 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 1,700 | ND (< 10) | ND (< 10) | ND (< 10) | |
| W-16A1 | | 8/23/2013 | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | ND (< 5.0) | 2,600 | 15 | ND (< 5.0) | 180 | |
| W-16A1 | | 11/22/2013 | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | ND (< 10) | 590 | 13 | ND (< 10) | 270 | |
| W-16A1 | | 5/22/2014 | ND (< 0.50) | 0.87 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 93 | 3.3 | ND (< 0.50) | 67 | |
| | | | | | | | | | | | | | | |
| W-17A2 | | 9/17/1992 | 48 | 3 | 0.7 | 0.9 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 12/15/1992 | 14 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-17A2 | | 3/5/1993 | 18 | 3.4 | ND (< 0.5) | 2.5 | - | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 6/7/1993 | 16 | 3.8 | ND (< 0.5) | 1.4 | - | ND (< 0.5) | ND (< 0.5) | 0.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 9/8/1993 | 14 | 3.7 | ND (< 0.5) | 1.4 | - | ND (< 0.5) | ND (< 0.5) | 0.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 12/6/1993 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-17A2 | | 3/2/1994 | 17 | 5.3 | ND (< 0.5) | 1.7 | - | ND (< 0.5) | ND (< 0.5) | 1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 6/8/1994 | 18 | 3.1 | ND (< 0.5) | 1.7 | - | ND (< 0.5) | ND (< 0.5) | 0.68 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 9/8/1994 | 15 | 4.2 | ND (< 0.5) | 1.3 | - | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 12/6/1994 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-17A2 | | 3/7/1995 | 13 | 3.2 | ND (< 0.5) | 1 | - | ND (< 0.5) | ND (< 0.5) | 0.56 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-17A2 | | 6/5/1995 | 12 | 3.1 | ND (< 0.5) | 1.2 | - | ND (< 0.5) | ND (< 0.5) | 0.66 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 0.81 |
| W-17A2 | | 9/6/1995 | 3.3 | 0.86 | 0.93 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLEA = 1.2 |
| W-17A2 | | 12/7/1995 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-17A2 | | 3/5/1996 | 13 | 3.5 | ND (< 0.5) | 1.6 | 0.69 | ND (< 0.5) | ND (< 0.5) | 0.89 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-17A2 | | 6/7/1996 | 9.3 | 2.8 | ND (< 0.5) | 1.5 | 0.73 | ND (< 0.5) | ND (< 0.5) | 0.88 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 103 |
| W-17A2 | Dup | 6/7/1996 | 8.3 | 2.5 | ND (< 0.5) | 1.3 | 0.6 | ND (< 0.5) | ND (< 0.5) | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 115 |
| W-17A2 | | 9/11/1996 | 12 | 3.5 | ND (< 0.5) | 2 | 1.4 | ND (< 0.5) | ND (< 0.5) | 1.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 110 |
| W-17A2 | | 12/12/1996 | 7.5 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-17A2 | | 3/5/1997 | 7.9 | 3.2 | ND (< 0.5) | 0.82 | 0.62 | ND (< 0.5) | ND (< 0.5) | 1.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 116 |
| W-17A2 | | 6/9/1997 | 9.9 | 3.8 | ND (< 0.5) | 0.97 | 0.85 | ND (< 0.5) | ND (< 0.5) | 1.5 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 93 |
| W-17A2 | | 9/10/1997 | 5.1 | 2.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; MC = 0.96 |
| W-17A2 | | 12/9/1997 | 2.3 | 2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 101 ; MC = 0.51 |
| W-17A2 | | 6/2/1998 | 5.4 | 1.8 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 2.1 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 112 ; MC = 0.7 |
| W-17A2 | | 12/9/1998 | ND (< 0.5) | 0.789 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 1.48 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| W-17A2 | | 6/8/1999 | 2.18 | 1.49 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | 1.83 | ND (< 0.500) | ND (< 0.500) | ND (< 0.500) | |
| W-17A2 | | 12/10/1999 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.506 | ND (< 0.5) | ND (< 1) | ND (< 0.5) | |
| W-17A2 | | 6/8/2000 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-17A2 | | 12/5/2000 | 2.5 | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.6 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-17A2 | Dup | 12/5/2000 | 2.6 | 2.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-17A2 | | 6/19/2001 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 2.0) | ND (< 0.50) | |
| W-17A2 | | 6/25/2003 | 1.4 | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-17A2 | | 6/20/2005 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-17A2 | | 6/14/2007 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-17A2 | | 6/10/2009 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-17A2 | | 6/15/2011 | 0.52 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-17A2 | Dup | 6/15/2011 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-17A2 | | 6/18/2013 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-18A1U | | 12/14/1992 | ND (< 5) | 120 | 65 | 5.6 | - | ND (< 5) | - | 54 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-18A1U | Dup | 12/14/1992 | ND (< 5) | 100 | 57 | 5.6 | - | ND (< 5) | - | 49 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-18A1U | | 3/3/1993 | ND (< 0.5) | 120 | 68 | 6.6 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 37 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 2 |
| W-18A1U | | 6/3/1993 | ND (< 0.5) | 100 | 66 | 5.6 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 49 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| W-18A1U | | 9/8/1993 | ND (< 0.5) | 96 | 60 | 5.8 | ND (< 2.5) | ND (< 0.5) | ND (< 0.5) | 47 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1.4 |
| W-18A1U | | 12/6/1993 | ND (< 5) | 93 | 54 | 7.2 | - | ND (< 5) | - | 54 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-18A1U | | 6/8/1994 | 0.83 | 120 | 93 | 9.2 | - | 0.56 | ND (< 0.5) | 86 | ND (< 0.5) | 1.3 | ND (< 0.5) | CHLFM = 3.9 |
| | | | | | | | | | | | | | | |
| W-19A2 | | 12/15/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-19A2 | Dup | 12/15/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | - | ND (< 5) | ND (< 5) | ND (< 10) | CHLFM = 12 |
| W-19A2 | | 3/4/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-19A2 | | 6/3/1993 | 1.6 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.7 |
| W-19A2 | | 9/8/1993 | 14 | 0.85 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 1 |
| W-19A2 | | 12/6/1993 | 10 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-19A2 | | 3/3/1994 | 9.3 | 0.81 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.79 |
| W-19A2 | | 6/8/1994 | 15 | 1.9 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-19A2 | | 12/7/1994 | 12 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-19A2 | | 6/5/1995 | 16 | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.53 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-19A2 | Dup | 6/5/1995 | 16 | 2.7 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | 0.52 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CHLFM = 0.55 |
| W-19A2 | | 12/7/1995 | ND (< 5) | 180 | 16 | 7 | - | ND (< 5) | - | 7.1 | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-19A2 | | 1/2/1996 | 16 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-19A2 | | 6/7/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 120 |
| W-19A2 | | 1/10/1997 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-19A2 | | 12/5/1997 | 8.1 | 1.2 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 89 |
| W-19A2 | | 12/9/1998 | 3.82 | 0.74 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 100 |
| W-19A2 | | 12/10/1999 | 7.72 | 69.9 | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | ND (< 2.5) | 7.81 | ND (< 2.5) | ND (< 5) | ND (< 2.5) | |
| W-19A2 | | 12/5/2000 | 3.2 | 47 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 4.0 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| W-19A2 | | 6/20/2001 | 4.6 | 34 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 3.5 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| W-19A2 | Dup | 6/20/2001 | 4.5 | 32 | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | ND (< 1.0) | 2.9 | ND (< 1.0) | ND (< 4.0) | ND (< 1.0) | |
| W-19A2 | | 6/27/2002 | 7.3 | 8.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 7.6 |
| W-19A2 | | 6/24/2003 | 3.1 | 8.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | Dup | 6/24/2003 | 2.7 | 7.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | CHLFM = 0.52 |
| W-19A2 | | 9/1/2004 | 2.7 | 3.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 0.76 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 9/1/2004 | ND (< 0.50) | 8.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | Dup | 9/2/2004 | 4.5 | 6.3 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |

**APPENDIX B**
**SELECTED COMPOUNDS FROM HISTORICAL RECORDS**
**Hewlett-Packard Company**
**COE Study Area and Perimeter Area, Palo Alto, California**

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W-19A2 | | 6/21/2005 | ND (< 0.50) | 7.5 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/28/2006 | ND (< 0.50) | 6.6 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.1 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/14/2007 | ND (< 0.50) | 5.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/10/2008 | 2.1 | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/10/2009 | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | 0.58 | |
| W-19A2 | | 6/8/2010 | ND (< 0.50) | 2.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | Dup | 6/8/2010 | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/14/2011 | ND (< 0.50) | 2.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/12/2012 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.4 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/17/2013 | ND (< 0.50) | 1.8 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 2.9 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| W-19A2 | | 6/10/2014 | ND (< 0.50) | 1.7 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | 3.0 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W-20B | | 12/14/1992 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-20B | | 3/2/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 6/2/1993 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 9/9/1993 | ND (< 0.5) | 0.53 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 12/6/1993 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-20B | | 3/2/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 6/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 9/8/1994 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 12/7/1994 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| W-20B | | 3/7/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 6/2/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 9/5/1995 | ND (< 0.5) | 0.54 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | MC = 1.6 |
| W-20B | | 12/6/1995 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 3/4/1996 | ND (< 0.5) | 2.4 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | |
| W-20B | | 6/5/1996 | ND (< 0.5) | 0.77 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 120 |
| W-20B | | 9/10/1996 | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | ND (< 0.5) | CBMA = 111 |
| W-20B | | 12/10/1996 | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 5) | - | ND (< 5) | ND (< 5) | ND (< 5) | ND (< 10) | |
| | | | | | | | | | | | | | | |
| W157A1U | | 8/16/2011 | 3.2 | 36 | 3.1 | 0.85 | 1.5 | ND (< 0.50) | ND (< 0.50) | 4.6 | ND (< 0.50) | 1.2 | ND (< 0.50) | |
| W157A1U | | 9/30/2011 | 5.4 | 47 | 5.3 | 0.87 | 1.6 | ND (< 0.50) | ND (< 0.50) | 5.6 | ND (< 0.50) | 1.8 | ND (< 0.50) | |
| W157A1U | | 6/19/2013 | 3.8 | 37 | 2.5 | 0.87 | 1.1 | ND (< 0.50) | ND (< 0.50) | 4.9 | ND (< 0.50) | 0.95 | ND (< 0.50) | |
| | | | | | | | | | | | | | | |
| W158A1U | | 8/16/2011 | ND (< 0.50) | 38 | 0.65 | 0.59 | 1.2 | ND (< 0.50) | ND (< 0.50) | 2.3 | 0.71 | ND (< 0.50) | ND (< 0.50) | |
| W158A1U | | 9/30/2011 | 4.7 | 44 | 5.2 | 0.87 | 1.8 | ND (< 0.50) | ND (< 0.50) | 5.0 | ND (< 0.50) | 1.9 | ND (< 0.50) | |
| W158A1U | | 6/12/2012 | ND (< 0.50) | 36 | 0.67 | 0.52 | 1.1 | ND (< 0.50) | ND (< 0.50) | 1.2 | 0.73 | ND (< 0.50) | ND (< 0.50) | |
| W158A1U | | 6/19/2013 | ND (< 0.50) | 38 | 0.75 | 0.55 | 1.3 | ND (< 0.50) | ND (< 0.50) | 1.7 | 0.51 | ND (< 0.50) | ND (< 0.50) | |
| W158A1U | | 6/11/2014 | ND (< 0.50) | 26 | 0.53 | ND (< 0.50) | 0.77 | ND (< 0.50) | ND (< 0.50) | 1.2 | ND (< 0.50) | ND (< 0.50) | ND (< 0.50) | |
| | | | | | | | | | | | | | | |

# APPENDIX B
## SELECTED COMPOUNDS FROM HISTORICAL RECORDS
## Hewlett-Packard Company
## COE Study Area and Perimeter Area, Palo Alto, California

| Location | Type | Date | PCE | TCE | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | 1,2-DCA | 1,2-DCB | cis-1,2-DCE | trans-1,2-DCE | Freon 113 | VC | Other Constituents |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Notes:**
All data reported in µg/L unless otherwise noted.
Dup = Field Duplicate
LF = Flow-Flow Purge Method
3V = 3-volume conventional purge
* = Due to anomolous results from the sample collected on June 11, 2014, V8-34 was resampled on July 1, 2014 using low-flow and 3-volume conventional purge methods.

**Abbreviations:**
TCE = Trichloroethene
1,1,1-TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
PCE = Perchloroethene (Tetrachloroethene)
Freon 113 = 1,1,2-Trichloro-1,2,2-Trifluoroethane
1,2-DCB = 1,2-Dichlorobenzene
1,2-DCA = 1,2-Dichloroethane
VC = Vinyl Chloride
1,3-DCB = 1,3-Dichlorobenzene
1,4-DCB = 1,4-Dichlorobenzene
2-CVE =2-Chloroethyl Vinyl Ether
CBMA = Chlorobromomethane
CHLBZ = Chlorobenzene
CHLEA = Chloroethane (Ethyl Chloride)
CHLMA = Chloromethane
CT = Carbon Tetrachloride
EDB = Ethylene Dibromide (1,2-Dibromoethane)
MC = Methylene Chloride (Dichloromethane)
DBCM = Dibromochloromethane
DCDFM = Dichlorodifluoromethane
Freon 11 = Trichlorofluoromethane
trans-1,3-DCP = trans-1,3-Dichloropropene
1,1,2,2-TCA = 1,1,2,2-Trichloroethane
1,1,2-TCA = 1,1,2-Trichloroethane
1,2,3-TCB = 1,2,3-Trichlorobenzene
1,2,4-TCB = 1,2,4-Trichlorobenzene
1,2-DCPA = 1,2-Dichloropropane
BDCHLMA = Bromodichloromethane
BRFM = Bromoform
BRMA = Bromomethane
CHLFM = Chloroform
cis-1,3-DCP = cis-1,3-Dichloropropene