

Status Report on Remedy Effectiveness

Prepared for:

Hookston Station Parties

**Hookston Station
Pleasant Hill, California**

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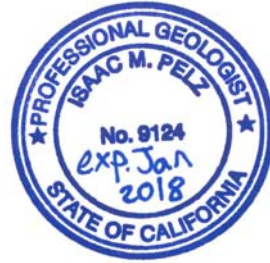
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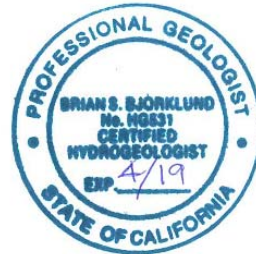
Hookston Station
Pleasant Hill, California

December 2017

Project No. 0113680.56



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LIST OF ACRONYMS

µg/L	Micrograms per liter
µg/m ³	Micrograms per cubic meter
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and xylenes
CTEH	Center for Toxicology and Environmental Health, L.L.C.
CVOC	Chlorinated volatile organic compound
DCA	Dichloroethane
DCE	Dichloroethene
ERM	ERM-West, Inc.
ESL	Environmental Screening Level
FS	Feasibility Study
GAC	Granular activated carbon
ISCO	In Situ Chemical Oxidation
KMnO ₄	Potassium permanganate
MCL	Maximum Contaminant Level
mg/kg	Milligrams per kilogram
MTBE	Methyl tertiary-butyl ether
ORP	Oxidation-reduction potential
PCE	Tetrachloroethene
PRB	Permeable reactive barrier
RDIP	Remedial Design and Implementation Plan
SMP	Soil Management Plan
TCA	Trichloroethane
TCE	Trichloroethene
TPH	Total petroleum hydrocarbon
USEPA	United States Environmental Protection Agency
VIP	Vapor intrusion prevention
VOC	Volatile organic compound
ZVI	Zero-valent iron

EXECUTIVE SUMMARY

This report documents the implementation and evaluates the effectiveness of remedial activities that have been performed to date by the Hookston Station parties to address trichloroethene (TCE) contamination associated with the Hookston Station Site (Site). The Hookston Station parties include Union Pacific Railroad Company, Daniel C. and Mary Lou Helix, Elizabeth Young, John V. Hook, Steven Pucell, Nancy Ellicock, and the Contra Costa Redevelopment Agency (now referred to as the “Contra Costa County Department of Conservation and Development”).

TCE and its degradation products are the primary constituents of concern in A-Zone and B-Zone groundwater at the Site. Several other properties in the Site vicinity have been identified by the Regional Water Quality Control Board (Water Board) as being, or suspected of being, sources of groundwater contamination, including volatile organic compounds (VOCs) (tetrachloroethene and its degradation products which include TCE, which are associated with the Vincent Road Source Area properties described below) and petroleum-related hydrocarbons (total petroleum hydrocarbons [TPH], benzene, and methyl tertiary-butyl ether, which are associated with the Pitcock Petroleum property). Contamination in groundwater originating from these other properties has commingled with impacts from the Hookston Station Site and has migrated into the Colony Park neighborhood.

This report has been prepared in accordance with Task 9 of the Order and presents an updated evaluation of the effectiveness of the remedial program 5 years after submittal of the 2012 *Status Report on Remedy Effectiveness* (ERM 2012b). As detailed in this report, the Hookston Station parties have implemented several remedial actions to address chemical impacts associated with the Hookston Station Site. The scope and overall conclusions related to remediation effectiveness are summarized below. As part of this 5-year remedy effectiveness evaluation, ERM assessed the suitability of the current indoor air, soil vapor, and groundwater monitoring programs established to provide confirmation of the long-term effectiveness of the remedial actions. Where appropriate, modifications to these monitoring programs are also proposed in this report, as presented below.

Abandonment of Private Water Wells/Land Use Restrictions

Eleven private water wells were identified and 10 wells were abandoned from residences that overlie the impacted A-Zone groundwater in the Colony Park neighborhood; the remaining well owner has not consented to its abandonment. Drinking water for residents within the Colony Park neighborhood is supplied by the Contra Costa Water District and is not impacted by the groundwater impacts. Contra Costa County land use restrictions preclude installation of new wells within the impacted groundwater area until groundwater cleanup standards are achieved.

Chemical Oxidation Injection (B-Zone Groundwater).

Five in situ chemical oxidation (ISCO) injection events were implemented between 2008 and 2010 to remediate B-Zone groundwater. Based on the results of performance monitoring, the chemical oxidant has successfully been distributed throughout the targeted treatment area. VOC concentrations in B-Zone wells within the core of the on-site source area are lower than pre-remediation results by up to two orders of magnitude. Concentrations have fluctuated over time in the on-site B-Zone wells, but the overall progressive decrease in concentrations demonstrates that the remediation program has been effective at reducing VOC mass in this area. It is anticipated that VOC concentrations in B-Zone wells will continue to decrease over time. Based on the assessment presented in this report, no additional ISCO injection events are necessary or planned.

As specified in the Water Board-approved 2017 Self-Monitoring Program, ISCO performance monitoring wells are currently monitored on a semiannual, annual, or biennial basis. Based on the groundwater data trends, ERM is proposing to continue the existing groundwater monitoring program, with a reduction in frequency to annual for the ISCO monitoring wells that are currently being sampled semiannually.

Installation of Permeable Reactive Barrier (Effects on A-Zone Groundwater)

A permeable reactive barrier (PRB) with zero-valent iron was installed between March and June 2009 in the A-Zone to remediate A-Zone groundwater. In the 8.5 years since the PRB was installed, TCE concentrations in groundwater entering the Colony Park neighborhood have decreased significantly. At many of the shallow A-zone monitoring wells installed downgradient of the PRB, chlorinated VOC (CVOC) concentrations are appreciably lower than in nearby wells installed upgradient of the PRB.

The A-Zone PRB effectiveness is demonstrated by overall CVOC declines in A-Zone groundwater, the presence of TCE degradation products in A-Zone groundwater following PRB installation, and significant declines in soil vapor throughout the area downgradient of the PRB. The CVOC concentration declines have been most pronounced in shallow A-Zone groundwater, which is the zone directly beneath the vadose zone and is suitable for the assessment of vapor intrusion (VI) risk. The A2-Zone is not in direct contact with the vadose zone because it underlies the shallow A-Zone; therefore, it is not considered a potential source for VI.

Among the nine shallow A-Zone wells immediately downgradient of the PRB (within 40 feet downgradient), only one well remains above the indoor air VI groundwater cleanup standard for TCE of 530 micrograms per liter ($\mu\text{g}/\text{L}$) (MW-32A) and four wells remain above the standard for vinyl chloride of 3.8 $\mu\text{g}/\text{L}$ (MW-30A, MW-37A, MW-38A, and MW-45). The fact that only a handful of wells remain above the cleanup standards is due to the effectiveness of the PRB in reducing CVOC concentrations and indicates that the remaining VI risk appears to be low.

It is expected that as groundwater continues to flow through the PRB, the concentrations of TCE in the shallow A-Zone wells will decline to below Site groundwater cleanup standards.

Groundwater monitoring data are currently collected from the PRB performance monitoring wells on a semiannual to annual basis, in accordance with the Self-Monitoring Program. Data collected as part of that program indicate that CVOC concentrations have generally stabilized over time. Accordingly, ERM is proposing to continue the groundwater monitoring program, with a reduction in frequency to annual for the PRB area wells currently being sampled semiannually.

Installation of Permeable Reactive Barrier (Effects on Soil Vapor)

Based on the soil vapor data collected to date, groundwater remediation measures appear to have been effective in reducing VOC concentrations in soil vapor. Over the past 9 to 10 years, long-term decreasing CVOC trends have been observed in soil vapor in most of the vapor probes located downgradient of the PRB. Furthermore, since the PRB was installed, CVOC detections in soil vapor have routinely been lower than the soil vapor cleanup standards. The decreasing CVOC concentration trends observed in soil vapor appear to correlate to the reduction of CVOC concentrations in A-Zone groundwater downgradient of the PRB and further demonstrate the effectiveness of the PRB in reducing CVOC concentrations in the shallow subsurface.

In addition to the low and downward-trending CVOC concentrations in soil vapor (and shallow A-Zone groundwater), 13 years of indoor air monitoring in the Colony Park Neighborhood indicate that the remaining VI risk appears to be low. This is based on the observation that TCE and its degradation products have not been detected (and confirmed) above applicable ESLs in indoor air samples collected from any homes since 2007. The indoor and soil vapor results support the conclusion that the PRB has been effective at reducing CVOC concentrations in the shallow subsurface.

Currently, soil vapor monitoring data are collected from Site soil vapor probes on a semiannual or annual basis in accordance with the Self-Monitoring Program. Based on the CVOC trends noted above, ERM is proposing to continue monitoring soil vapor, with a reduction to annual sampling at all soil vapor probes specified in the Self-Monitoring Program.

As a result of the significant declines in CVOC concentrations in soil vapor (and groundwater) beneath the Colony Park neighborhood since implementation of the PRB, the potential risk posed by VI to indoor air has been reduced significantly. Therefore, ERM proposes to reduce the geographic extent of the indoor air monitoring Study Area to reflect the current, isolated extent of CVOCs in soil vapor beneath the Colony Park neighborhood. Specifically, ERM proposes to reduce the annual indoor air monitoring program Study Area to comprise the 14 homes located on the block west of Stimel Drive and south of Thames Drive. ERM proposes to continue monitoring indoor air annually within the 14 homes located in the proposed revised Colony Park indoor air monitoring Study Area.

Installation of Vapor Intrusion Prevention Systems

Indoor air quality samples have been collected from over 60 homes and vapor intrusion prevention (VIP) systems were initially installed at eight homes within the Colony Park neighborhood to address potential migration of VOCs that may be present in soil vapor to indoor air. In March 2015, ERM learned that the vapor barrier associated with the VIP system at 1005 Stimel Drive had been removed in 2013 without notifying ERM. Following confirmation sampling that indicated TCE and its degradation products were non-detect in indoor air, this VIP system was shut down in April 2015. The remaining seven operating VIP systems are inspected approximately quarterly, where access is granted, to verify that systems are operating properly. During the inspections, the vapor barriers and system discharge pipes are examined for damage, and airflow through the discharge pipes is measured. Any deficiencies observed in

system operation and equipment are repaired during the inspections, if possible, or shortly thereafter. As of the latest VIP system inspection event in September 2017, all inspected VIP systems were operating properly.

Based on the indoor air monitoring data collected to date, the remedial measures implemented to date have been effective in reducing CVOC concentrations in indoor air, with no recent detections exceeding applicable Water Board residential environmental screening levels. As discussed in this report, significant declines in CVOC concentrations in soil vapor warrant a reduction of the geographic extent of the indoor air monitoring Study Area. Based on the findings, ERM is proposing to discontinue operation of two VIP systems installed beneath homes located outside the revised Study Area because continued operation of these VIP systems is no longer warranted. ERM recommends continued operation of the five VIP systems installed beneath homes within the revised Study Area.

Establishment of Institutional Controls for Future Soil Management

A draft Soil Management Plan (SMP) was prepared to effectively manage potential exposure of construction workers to arsenic-impacted subsurface soil that may occur during future excavation activities within a landscaped area of the Hookston Station Site associated with the Iron Horse Corridor. However, prior to finalization of the draft SMP, in 2015, Contra Costa County completed soil removal activities consisting of excavation and subsequent landscape work, resulting in removal of the arsenic-impacted soil, which was the subject of ERM's draft SMP. These activities were performed by ENGEO Incorporated on behalf of Contra Costa County who used their own SMP and health and safety plan to complete the work. Accordingly, because the arsenic-impacted soil was removed, ERM's draft SMP is no longer necessary or required.

1.0 INTRODUCTION

ERM-West, Inc. (ERM) has prepared this *2017 Status Report on Remedy Effectiveness* for the Hookston Station property (Site) in Pleasant Hill, California on behalf of the parties named in paragraph 3 of the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) Order No. R2-2007-0009, *Adoption of Final Site Cleanup Requirements and Rescission of Order Nos. R2-2003-0035 and R2-2004-0081* (adopted 23 January 2007, the “Order”). The named parties include Union Pacific Railroad Company, Daniel C. and Mary Lou Helix, Elizabeth Young, John V. Hook, Steven Pucell, Nancy Ellicock, and the Contra Costa Redevelopment Agency (now referred to as the “Contra Costa County Department of Conservation and Development”). This report has been prepared in accordance with Task 9 of the Order and presents an updated evaluation of the effectiveness of the remedial program five years after submittal of the *2012 Status Report on Remedy Effectiveness* (ERM 2012b).

1.1 REPORT ORGANIZATION

This document is organized as follows:

- Section 1 states the objective of this document and presents the Site background information;
- Section 2 presents a summary of the remedial activities conducted for the Site and the downgradient area;
- Section 3 discusses the effectiveness of the remedial program;
- Section 4 presents proposed changes to the remedial/monitoring program based on the findings as presented in this report;
- Section 5 summarizes the reporting requirements and the schedule for the future performance monitoring events; and
- Section 6 presents references used in preparing this report.

Tables and figures referenced in this report are provided following the text.

1.2 BACKGROUND

The Site is located near the intersection of Hookston and Bancroft Roads in Contra Costa County, Pleasant Hill, California (Figure 1). The property

boundaries form an elongated strip that runs north to south along a former railroad right-of-way and encompass an area of approximately 8 acres. Figure 2 superimposes the Site boundary over an aerial photograph that shows the current Site conditions and surrounding land uses.

Trichloroethene (TCE) and its degradation products cis-1,2-dichloroethene (DCE), 1,1-DCE, and vinyl chloride are the primary constituents of concern for the Site. Several other properties in the Site vicinity have been identified by the Water Board as being, or suspected of being, sources of the following constituents that have been detected in groundwater at, around, and migrating through the Site:

- Volatile organic compounds (VOCs), including tetrachloroethene (PCE) and associated degradation products which include TCE¹; and
- Petroleum-related hydrocarbons, including total petroleum hydrocarbons (TPH), benzene, and methyl tertiary-butyl ether (MTBE).

A more detailed discussion of chemical occurrence is presented in Section 1.2.2.

1.2.1 *Geology and Hydrogeology*

The Site and surrounding area is underlain by unconsolidated deposits that extend to at least 100 feet below ground surface (bgs), as shown on Figure 3 and summarized below:

- Fine-grained clays and silts are present from the ground surface (or immediately below the ground surface cover materials) to depths typically ranging from 30 to 50 feet bgs. ERM has defined this zone as the “A-Zone,” which contains discontinuous lenses of sands, silty sands, and gravelly sands that are interbedded in the fine-grained deposits. These coarser-grained lenses are typically only a few inches to a few feet thick. Vertical variations in geologic properties and chemical concentrations observed during the pre-design studies for the A-Zone groundwater remedy led to the split of this groundwater zone in some areas into upper and lower sections, which have been referred to as shallow A- and A2-Zones, respectively. As the uppermost saturated groundwater zone, the A-Zone can be assessed for the evaluation of vapor intrusion (VI) risk by volatilization of VOCs into

¹ The solvents PCE and TCE are chlorinated hydrocarbons and may degrade to other chlorinated compounds. The nature and rate of degradation vary depending on Site-specific circumstances. Generally speaking, the degradation process of chlorinated solvents proceeds in the following order: PCE, TCE, cis-1,2-DCE and/or trans-1,2-DCE, 1,1-DCE, vinyl chloride, and finally, ethene.

the vadose zone. The deeper A2-Zone is isolated from the vadose zone by the overlying shallow A-Zone, and therefore, does not contribute to and is not suitable for evaluation of VI risk.

- Directly beneath the A-Zone, a relatively continuous sand unit that is interbedded with silt and clay lenses is present between the approximate depths of 50 and 70 feet bgs (although in some areas it can be as shallow as 30 feet bgs). ERM has defined this zone as the “B-Zone.” The sands of the B-Zone are generally 5 to 10 feet thick and include sands, clayey sands, and gravelly sands; a few gravel zones are also encountered in this unit. The silt and clay lenses within the B-Zone are up to 10 feet thick, but are generally less than a few feet thick.
- A clay unit that is 10 to 40 feet thick is present beneath the B-Zone.
- A deeper sand unit, defined as the “C-Zone,” is present beneath the clay unit and is initially encountered at depths ranging from 65 to 97 feet bgs. The C-Zone is a continuous sand unit that is interbedded with silt and clay lenses. The C-Zone extends to at least 100 feet bgs; the deposits deeper than 100 feet bgs have not been characterized.

Groundwater in the A-, B-, and C-Zones flows to the north-northeast. The depth to groundwater in each of these zones has historically ranged from approximately 10 to 23 feet bgs in the A-Zone, 9 to 24 feet bgs in the B-Zone, and 13 to 21 feet bgs in the C-Zone. The overall hydraulic gradients in the three zones have typically ranged from 0.001 to 0.004 foot per foot across the entire monitored area. Based on groundwater level measurements and stratigraphy, the three water-bearing zones are confined to semi-confined. Historical water levels measured to date at the Site are provided in the *Third Quarter 2017 Monitoring Report – Hookston Station Site – Pleasant Hill, California* (ERM 2017c).

1.2.2

Chemical Occurrence

Soil

The VOC, TPH, semivolatile organic compound, and polychlorinated biphenyl concentrations in soil throughout the Site, as documented in extensive past investigations, are generally low or non-detectable, with only a few samples having concentrations exceeding the environmental screening levels (ESLs) developed by the Water Board (2008).

Subsurface soil samples collected in one small area of the Site (a commercial use area approximately 40 feet by 40 feet, located within the southern half of the Site in a landscaped area associated with the Iron

Horse Corridor) contain arsenic at concentrations above the Site-specific cleanup standard of 32 milligrams per kilogram (mg/kg) approved by the Water Board for the Site. The results of the *Baseline Risk Assessment* (Center for Toxicology and Environmental Health, L.L.C. [CTEH] 2006) indicate that risks to human health associated with exposure to Site soils are limited to construction workers who may be potentially exposed to soil containing arsenic at concentrations above the Site-specific cleanup standard during excavation or other invasive activities conducted in this very small portion of the Site. As discussed in the following paragraphs, this area was remediated by the Contra Costa County Department of Public Works.

In 2014, the Contra Costa County Department of Public Works conducted environmental soil investigations on the Site in support of a landscape improvement project within a portion of the Iron Horse Corridor, located between Hookston Road and Mayhew Way. The intent of this investigation was to address potential health risks for trail users and construction workers. The results of this investigation were documented in the 15 January 2015 *Remedial Investigation Report, Iron Horse Corridor, Hookston Station Landscape Improvements, Pleasant Hill, California* (ENGEIO Incorporated 2015a) and the 23 March 2015 Addendum to the Remedial Investigation Report (ENGEIO Incorporated 2015b). A total of 96 soil samples were collected along the corridor from depths between 0 and 36 inches bgs and were analyzed for a combination of total arsenic, total lead, TPH as diesel, TPH as motor oil, TPH as gasoline, benzo(a)pyrene, polychlorinated biphenyls, naphthalene, and/or benzene, toluene, ethyl benzene, and xylenes (BTEX).

Arsenic was detected at concentrations up to 470 mg/kg, with the highest concentrations generally located adjacent to the former railroad track alignment. TPH as motor oil was detected at concentrations up to 3,600 mg/kg. Other compounds were either consistent with naturally occurring background concentrations, detected at low concentrations, or not detected above laboratory reporting limits. Based on the sampling results, a total of 28 step-out samples were collected to delineate areas of elevated arsenic and motor oil concentrations and benzo(a)pyrene data gaps. These areas were delineated as summarized in the 15 January 2015 Remedial Investigation Report (ENGEIO Incorporated 2015a).

To address elevated concentrations of arsenic and TPH as motor oil identified during the step-out delineation activities, excavation of impacted areas was performed as summarized in the 3 October 2017 *Remedial Action Completion Report, Iron Horse Corridor, Hookston Station Landscape Improvements, Pleasant Hill, California* (ENGEIO Incorporated

2017). As documented in this report, approximately 1,100 tons of arsenic- and TPH-as-motor-oil-impacted soil was removed and disposed of off-site. Remaining soils at the Site meet remediation parameters summarized in the Remedial Investigation Report (ENGEO Incorporated 2015a). Following soil remediation activities, subsequent landscape work was completed, in accordance with the plans presented in the Remedial Investigation Report.

Groundwater

Groundwater quality in the area encompassing the Site has been impacted by constituents from multiple known and suspected sources. These sources are summarized below and are described in more detail in the Feasibility Study (FS; ERM 2006b), the *100% RDIP for A-Zone Permeable Reactive Barrier* (ERM 2008c), and the *Implementation Report for A-Zone Permeable Reactive Barrier* (ERM 2009b).

- **Hookston Station:** the Water Board has identified this property as a source for TCE.
- **Vincent Road Source Area:** Walnut Creek Manor (81 Mayhew Way, Walnut Creek); Mayhew Center (3301-3341 Vincent Road, Pleasant Hill); and the Cuff Property Management Company (3343-3355 Vincent Road, Pleasant Hill) – the Water Board has identified each of these properties as an actual or suspected source for PCE and associated degradation products. Consistent with the Water Board’s determination, a U.S. District Court Judge and jury determined that the Mayhew Center property is a source for PCE impacts. For purposes of this report, these properties are referred to generally as the “Vincent Road Source Area.”
- **Pitcock Petroleum (also known as the Haber Oil Products Company):** (220 Hookston Road, Pleasant Hill) – the Water Board has identified this property as a source for petroleum hydrocarbons, as well as BTEX and MTBE.

TCE and its degradation products, cis-1,2-DCE, 1,1-DCE, and vinyl chloride, are present in A-Zone and B-Zone groundwater in the area encompassing the Site. Groundwater in the area has also been impacted by PCE and its degradation products, including TCE, from the Vincent Road Source Area. Few VOC detections have been reported historically in C-Zone groundwater and VOCs have been non-detect in the C-Zone since 2005.

Water levels and quality are monitored in accordance with the Water Board's *Hookston Station Site, 228 Hookston Rd., Pleasant Hill, Contra Costa County - Modification for Self-Monitoring Program for Order No. R2-2007-0009*, dated 29 March 2017 (the "Self-Monitoring Program"). Water levels are measured at all wells during the First and Third Quarters of each year. The Self-Monitoring Program currently specifies that monitoring wells are to be sampled semiannually, annually, or biennially, depending on the well in question. The most recent Sitewide groundwater sampling event occurred in July 2017 and was documented in the *Third Quarter 2017 Monitoring Report* (ERM 2017c), submitted to the Water Board in October 2017. The most recent groundwater monitoring event that included all monitoring wells occurred in the First Quarter 2016.

TCE groundwater impacts originate in the southwestern portion of the Site. PCE/TCE-impacted groundwater associated with the Vincent Road Source Area upgradient of the Site originates west of Vincent Road and flows northeast across the northern portion of the Site and into the Colony Park neighborhood. Based on groundwater chemistry and groundwater flow data collected by the Hookston Station parties, the VOCs detected in several monitoring wells in the northern portion of the Site (including, for example, MW-1, MW-4, MW-7, and MW-22A/B) (Figure 4) are not associated with the TCE releases at the Site, but rather, are associated with releases from the Vincent Road Source Area. Impacted groundwater from the Site and Vincent Road Source Area commingles in the northern portion of the Site and flows off Site below portions of the Colony Park neighborhood.

Petroleum-related chemicals have impacted groundwater at the Pitcock Petroleum property, including TPH as gasoline and benzene, which have been detected in groundwater in the milligram-per-liter range (the Water Board ESLs for TPH as gasoline and benzene are 100 and 1.0 micrograms per liter [$\mu\text{g}/\text{L}$], respectively). Groundwater impacted by these petroleum-related constituents from the Pitcock Petroleum property has also migrated to the northeast, across the northern portion of the Site and into the Colony Park neighborhood. Based on the groundwater chemistry and flow data collected by the Hookston Station parties, petroleum hydrocarbons detected in wells MW-1, MW-4, and MW-22A/B are attributed to the Pitcock Petroleum site. These groundwater impacts commingle with the impacted groundwater from the Vincent Road Source Area in the northern portion of the Site and flow into the Colony Park neighborhood. Data collected in the vicinity of the Pitcock Petroleum property and downgradient areas indicate that hydrocarbons are contributing to the breakdown of PCE and TCE into their degradation products.

Soil Vapor

Passive soil vapor surveys, as well as active soil vapor monitoring, have been completed in and around the Site to assess the potential migration of VOCs from groundwater volatilizing into the pore spaces of overlying soil. Soil vapor sampling is currently conducted quarterly in accordance with the Self-Monitoring Program. The current Hookston Station soil vapor monitoring network consists of 19 vapor probes (with locations SVP-15 to -18 each containing two probes at different depths; Figure 5). Soil vapor samples are collected from probes SVP-1 to -6 and SVP-11 to -19 (excluding SVP-15-10' and SVP-19-10') in accordance with the Self-Monitoring Program, which specifies that soil vapor probes are to be sampled semiannually (12 probes) or annually (seven probes). In November 2012, two new soil vapor probes (SVP-18-5R and SVP-18-10R) were installed adjacent to existing probes SVP-18-5 and SVP-18-10 as replacements for these probes, as part of the routine maintenance of the soil vapor probe monitoring network. Both the new and existing probes at the SVP-18-5 and SVP-18-10 location were sampled in the First Quarter 2013 to confirm the accuracy of the data collected from the replacement probes. The soil vapor samples are analyzed for VOCs by United States Environmental Protection Agency (USEPA) Method TO-15.

Benzene, PCE, TCE, and associated degradation products are the most frequently detected VOCs in soil vapor. These VOCs are present in soil vapor in areas that overlie the A-Zone impacted groundwater. The distribution of PCE, TCE, cis-1,2-DCE, 1,1-DCE, and vinyl chloride in soil vapor is shown in the FS report (ERM 2006b) and within Quarterly Monitoring Reports. The most recent performance monitoring occurred in July 2017 and was documented in the *Third Quarter 2017 Monitoring Report* (ERM 2017c), submitted to the Water Board in October 2017. The most recent sampling event that included all 19 soil vapor probes occurred in the First Quarter 2017.

In October 2016, the Water Board issued a directive letter requiring the Hookston Parties to perform VI investigation activities at the Colony Park Town Houses property located northeast of the Hookston Station Site, southeast of the corner of Hookston Road and Bancroft Road (Water Board 2016b) (Figure 2). On 16 December 2016 on behalf of the Hookston Parties, ERM submitted a workplan consisting of soil vapor probe installation and sampling on the Colony Park Town Houses property, with a contingency to collect indoor air samples if needed, to comply with the directive letter (ERM 2016b). The workplan was conditionally approved by the Water Board on 10 March 2017 (Water Board 2017b).

Implementation of the field work is currently pending approval to access the Colony Park Town Houses Property.

Indoor Air

Indoor air quality samples are collected annually from certain homes in the Colony Park neighborhood. The results of these sampling events, including sampling locations, summary data tables, and laboratory analytical results are provided in Annual Indoor Air Monitoring Reports, which are published in January of each year in accordance with the Water Board Order (ERM 2006a, 2006c, 2008a, 2009a, 2010, 2011, 2012a, 2013, 2014, 2015, 2016a, and 2017a). The findings of the 2017 indoor air sampling event will be documented in the *Annual Indoor Monitoring Report* to be submitted to the Water Board on 31 January 2018.

Indoor air samples have been collected from over 60 private residences since 2004 in conjunction with the indoor air investigations noted above. Results of the residential indoor air sampling have been compared to the residential indoor air ESLs promulgated at the time of sampling. The current ESLs were finalized February 2016 (Water Board 2016b). Since the start of the indoor air monitoring, several VOCs have been detected at various homes in excess of ESLs. The most frequently detected VOCs are benzene, 1,2-dichloroethane (DCA), and PCE, which do not originate from the Site.

As detailed further below, TCE and vinyl chloride have historically been detected in indoor air at concentrations above the residential indoor air ESL in some of the homes sampled. These residences are generally within or adjacent to the city block bounded by Hookston Road, Hampton Drive, Thames Drive, and Stimel Drive. 1,1,1-Trichloroethane (TCA), 1,1-DCA, and 1,1-DCE have been detected in indoor air at several homes at concentrations less than their respective ESLs. Aromatic hydrocarbons, including ethylbenzene and xylenes, have been detected in indoor air at several homes at concentrations in excess of ESLs. TCA, 1,1-DCA, and the aromatic hydrocarbons are not associated with the Site. As previously noted, 1,1-DCE is a degradation product of PCE and TCE. The presence of VOCs in indoor air at several of these locations, and others, can be attributed to fugitive emissions from chemical-containing consumer products, building materials, or other sources within the home rather than soil vapors from underlying groundwater conditions.

1.3

HOOKSTON STATION REMEDIATION STRATEGY

Based on the FS prepared for the Site in July 2006, the following remedial technologies were selected, approved by the Water Board, and have been implemented:

- Installation of a permeable reactive barrier (PRB) with zero-valent iron (ZVI) in the A-Zone to remediate A-Zone groundwater;
- Implementation of in situ chemical oxidation (ISCO) in the B-Zone to remediate B-Zone groundwater;
- Installation of engineering controls in the form of vapor intrusion prevention (VIP) systems at certain residences within the Colony Park neighborhood to address potential migration of VOCs that may be present in soil vapor to indoor air in residences;
- Removal of identified private groundwater wells, which were reportedly used for irrigation and filling swimming pools, from residences that overlie the impacted A-Zone groundwater in the Colony Park neighborhood;
- Adoption of an institutional control by Contra Costa County regarding new groundwater well installations within the impacted area until groundwater cleanup standards are achieved; and
- Development of an institutional control in the form of a Soil Management Plan (SMP) to address the management of arsenic-impacted, subsurface soil in a small portion of the Site.

1.4

CLEANUP STANDARDS

Among other standards, the Order established the following cleanup standards for groundwater:

- California Maximum Contaminant Levels (MCLs); and
- ESLs for Evaluation of Potential VI Concerns applicable to groundwater monitoring wells located downgradient of the PRB, which provide the basis for removal of the VIP systems.

The standards are provided in the relevant tables included in this report.

1.5

REPORT OBJECTIVES

The objective of this report is to document the remedial activities to date, evaluate the effectiveness of the remediation measures implemented at the Site in accordance with the cleanup standards specified in the Order, and propose any changes to the remedial program based on these findings. This report represents the third evaluation of the effectiveness of the remedial program. The initial evaluation was presented in the 2009 *Status Report on Remedy Effectiveness* (ERM 2009c). Three years later, an evaluation of remedy effectiveness was presented in the 2012 *Status Report on Remedy Effectiveness* (ERM 2012b). Status reports are to be submitted at the end of each subsequent 5-year period in accordance with Task 9 of the Order.

2.0 *REMEDIAL ACTIVITIES TO DATE*

2.1 *ENGINEERING AND INSTITUTIONAL CONTROLS*

2.1.1 *Private Well Abandonments*

Eleven private backyard wells located within the downgradient study area were identified during the Remedial Investigation (ERM 2004). To eliminate potential exposure to impacted groundwater, the Hookston Station parties offered to properly decommission these 11 wells by removing well pumps and electrical systems, followed by pressurized grouting to seal the well from further use. Where possible, the wells were sampled for VOCs prior to decommissioning. All wells but one have been decommissioned to date. The owner of the remaining well at 1200 Thames Drive has not consented to its abandonment; according to the owner, this well was not being used. Drinking water for residents within the Colony Park neighborhood is supplied by the Contra Costa Water District and is not impacted by the groundwater contamination.

2.1.2 *Private Well Installation Restriction*

Institutional controls for new well installations within the area of impacted groundwater were implemented by the Contra Costa County through its adoption of Land Use Policy #07-001 in March 2007. Contra Costa County land use restrictions preclude installation of new wells within the impacted groundwater area until groundwater cleanup standards are achieved.

2.1.3 *Vapor Intrusion Prevention*

Since 2004, indoor air samples for VOC analyses have been collected from over 60 private residences. Samples collected from 10 of the private residences in 2004 reported TCE in indoor air at concentrations that exceeded the established Water Board ESL for TCE in residential indoor air (1.2 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$] TCE) at the time of sampling. Between 2004 and 2007, the Hookston Station parties installed VIP systems in eight homes in the residential neighborhood northeast of the Site (Figure 6). The Hookston Station parties offered to install VIP systems at two additional homes where concentrations exceeded the ESL for TCE; however, the property owners did not grant permission to install such systems. The Hookston Station parties also offered to install a system in

another home within this residential neighborhood, but subsequent testing indicated that concentrations of TCE were below the ESL. ERM has conducted annual indoor air monitoring within the designated study area that encompasses 38 private residences within the Colony Park neighborhood (Study Area) (pending access) since 2013. The boundaries of the Study Area are depicted on Figure 6. This indoor air monitoring data is used for ongoing evaluation of the effectiveness of the VIP systems and to assess potential VI to indoor air in homes that do not contain VIP systems.

The VIP systems consist of the installation of a plastic vapor barrier on the soil surface within the crawl space to prevent potential migration of vapor that may be present in the subsurface up into the residence. Under the vapor barrier, low flow vapor extraction is performed as an enhancement to the vapor barrier. Vapor is collected through a perforated pipe located underneath the plastic barrier, and is discharged above the roof through the use of a low-power fan mounted on the exterior of the building structure.

Because elevated concentrations of TCE and vinyl chloride were detected in indoor air at 1002 Hampton Drive, a carbon abatement system, consisting of one 55-gallon drum containing granular activated carbon (GAC), was installed on the VIP system's discharge pipe at that residence on 10 September 2007. A second GAC drum was added on 3 December 2007. Spent GAC drums were periodically replaced with fresh GAC during operation of the carbon abatement system based on sampling results. On 7 December 2015, in accordance with the Water Board-approved *Request for Removal of Carbon Abatement System at 1002 Hampton Dr.* (ERM 2015b) and following receipt of homeowner approval and indoor air confirmation sampling results that were below ESLs, the carbon abatement system was disconnected from the VIP system and the VIP system discharge was routed directly to the existing vent adjacent to the roof. The VIP system continued normal operation with the extraction fan turned on.

In March 2015, ERM learned that a third party had removed the VIP barrier installed beneath 1005 Stimel Drive in 2013 without notifying ERM. With the homeowner's consent, ERM performed two rounds of indoor air confirmation sampling in the home to determine whether the repair and continued operation of the VIP system was necessary. The sampling results indicated that TCE and its degradation products were not detected in any of the indoor air samples collected. Therefore, based on the indoor air results, the VIP system was shut down in April 2015. Additional background information for VIP system modifications at 1005

Stimel Drive is presented in the *2015 Annual Indoor Air Monitoring Report* (ERM 2016a).

The VIP systems in the remaining seven homes are currently being inspected quarterly, where access is granted, to verify that systems have not been disturbed and are operating properly. During the inspections, the vapor barriers and system discharge pipes are examined for damage, and airflow through the discharge pipes is measured. Any deficiencies observed in system operation and equipment are repaired during the inspections, if possible, or shortly thereafter.

Currently, ERM conducts annual indoor air monitoring in accordance with the Self-Monitoring Program described in the Order. This program requires indoor air sampling at 38 homes, but typically fewer homeowners and/or occupants allow access for sampling (e.g., 12 homes were sampled in 2017). Samples are collected over a 24-hour period from the crawl space, first floor, and second floor (if present) of each home. Ambient air samples are also collected on each day indoor air sampling is completed. All samples are submitted for laboratory analysis of VOCs by USEPA Method TO-15 SIM. The findings are documented in Annual Indoor Monitoring Reports submitted to the Water Board on 31 January of each year (ERM 2006a, 2006c, 2008a, 2009a, 2010, 2011, 2012a, 2013, 2014, 2015, 2016, and 2017a).

2.1.4 *Soil Management Plan for Arsenic in Soil*

Soil that contains arsenic at concentrations above the Site-specific cleanup standard of 32 mg/kg approved by the Water Board was historically limited to subsurface soil (deeper than 0.5 foot bgs) on a small portion of the Site (a commercial use area approximately 40 feet by 40 feet in the southern half of the Site) that is currently vacant. An SMP was developed to provide standard procedures for future subsurface work that may be conducted within this limited area of arsenic-impacted soil; a draft of this plan was submitted to the Water Board on 13 June 2014. However, in 2015 prior to finalization of this SMP, Contra Costa County completed soil removal activities consisting of excavation and subsequent landscape work (previously described in Section 1.2.2), resulting in the removal of the arsenic impacted soil, which was the subject of ERM's draft SMP.

Soil removal activities associated with the Contra Costa County Iron Horse Corridor landscape improvement project were completed in accordance with their SMP, which was included in the 15 January 2015 Remedial Investigation Report (ENGEIO Incorporated 2015a). Contra Costa County's excavation activities are summarized in the 3 October 2017

Remedial Action Completion Report (ENGEO Incorporated 2017). These activities were performed by ENGEO Incorporated on behalf of Contra Costa County who used their own SMP and health and safety plan to complete the work. Accordingly, because the arsenic impacted soil was removed, ERM's draft SMP is no longer necessary or required.

2.2 B-ZONE CHEMICAL OXIDATION

As discussed in the FS (ERM 2006b), *Remedial Design and Implementation Plan for B-Zone Chemical Oxidation Report* (RDIP; ERM 2007b), and the *B-Zone Chemical Oxidation Implementation Report* (ERM 2008b), the ISCO program was designed to target the highest concentration area in B-Zone groundwater near the southwestern portion of the Site, starting beneath the building at 199 Mayhew Way (Figure 2). The ISCO program is intended to address the B-Zone chemical impacts.

Nine injection wells (INJ-1 through INJ-9) and five performance monitoring wells (MW-13A2, MW-34B, MW-35A2, MW-35B, and MW-36B) were installed during January through March 2008 for the B-Zone ISCO program. Installation and development of these wells are described in detail in the *B-Zone Chemical Oxidation Implementation Report* (ERM 2008b).

Over the course of five ISCO injection events performed between February 2008 and May 2010, a total of approximately 293,500 gallons of potassium permanganate (KMnO₄) was injected into permanent or temporary injection wells in the B-Zone to degrade CVOCs. The locations of the injection and monitoring wells associated with the ISCO program are shown on Figure 7. Prior to implementation of the B-Zone ISCO program, a pre-injection water quality monitoring event was completed in January and February 2008. Additional details about the implementation of the ISCO program can be found in the 2012 *Status Report on Remedy Effectiveness* (ERM 2012b).

The monitoring wells sampled as part of the ISCO performance monitoring include the following (locations shown on Figure 4):

- MW-08B
- MW-11B
- MW-12B
- MW-13A2 and MW-13B
- MW-34B
- MW-35A2 and MW-35B
- MW-36B
- TW-1

Turbidity, pH, oxidation-reduction potential (ORP), dissolved oxygen, specific conductance, and temperature are monitored during purging, and groundwater samples from the above wells were analyzed for:

- Potassium, iron, and manganese by USEPA Methods 6010 and 6020 (USEPA SW-846);
- Chloride by USEPA Method 300.0 (Methods of Chemical Analysis of Waters and Wastes);
- Dissolved chromium by USEPA SW-846 Method 6010;
- Dissolved hexavalent chromium by USEPA SW-846 Method 7196-A; and
- VOCs by USEPA Method 8260.

The last performance monitoring event specifically associated with the ISCO injection events was completed in September 2010. ISCO performance monitoring wells are currently sampled for VOCs as part of the Sitewide groundwater monitoring program in accordance with the Self-Monitoring Program. Section 3.1 presents the results of the B-Zone ISCO performance monitoring and discusses the effectiveness the B-Zone ISCO program to date.

2.3

A-ZONE PRB

The PRB was installed by GeoSierra Environmental, Inc. (GeoSierra) as one continuous reactive zone of ZVI extending laterally approximately 480 feet on a northwest-to-southeast alignment across Len Hester Park, proceeding parallel to and then across Hookston Road. The PRB alignment is shown on Figure 8. The A-Zone PRB was constructed to a depth ranging from approximately 11-15 feet bgs to 44-48 feet bgs. The bottom of the PRB is generally above the top of the B-Zone sands, which typically begin at approximately 50 feet bgs. The primary objective of the PRB is to reduce chlorinated VOC (CVOC) concentrations in the shallow A-Zone because this shallowest water-bearing zone is the source of potential soil vapor impacts. The PRB was also constructed to reduce CVOCs in the A2-Zone; however, this zone is isolated from the vadose zone by the overlying shallow A-Zone, and therefore, does not contribute to and is not suitable for evaluation of VI risk. The PRB was not designed to target the deeper B-Zone. The construction of the PRB commenced with drilling in March 2009 and was completed in June 2009. No significant modifications were made to the design and installation of the PRB.

Azimuth-controlled vertical hydraulic fracturing (hydrofracturing) was used to install the PRB, as it involves no soil excavation and causes minimal site disturbance. Using the hydrofracturing technology, the PRB was constructed in three segments from a series of conventionally drilled boreholes along the PRB alignment, using a specialized fracture casing (frac casing) grouted into the boreholes. The PRB was constructed by injection of iron filings into these frac casings with real-time quality assurance monitoring of the injections to quantify the PRB geometry and iron-loading densities. A more detailed description of the PRB installation is provided in the *Final Construction Report, A-Zone Aquifer, ZVI Permeable Reactive Barrier Project* (GeoSierra 2009) and *Implementation Report for A-Zone Permeable Reactive Barrier* (ERM 2009b).

The PRB is designed to treat VOCs originating at and migrating from the Site within the shallow A-Zone. Although the Hookston Station parties are not responsible for investigating and remediating sources of off-site contamination, including contamination originating at and migrating from the Vincent Road Source Area and the Pitcock Petroleum properties, impacted groundwater emanating from such off-site sources is also expected to flow through some or all of the PRB. The PRB is designed to treat CVOCs, thus will be used to treat CVOC-impacted groundwater originating from off-site sources (including the Vincent Road Source Area) that flows through the PRB. Based on current information, the presence of petroleum-related hydrocarbons in groundwater migrating from the Pitcock Petroleum property is not expected to adversely affect the overall efficiency of the PRB; however, possible impacts on efficiency will be evaluated in conjunction with future monitoring of the PRB. The PRB is not designed to treat petroleum-related impacts.

During the year following installation of the PRB, depth-to-water measurements were collected monthly from 26 monitoring wells installed along and near the PRB, and 12 downgradient monitoring wells were sampled monthly for VOCs by USEPA Method 8260. Quarterly sampling for VOC analysis (by Method 8260) and total organic carbon analysis (by USEPA Method SM 18-5310) was performed on 14 wells. A subset of the wells was also sampled for analysis of additional constituents, including alkalinity, anions (including fluoride, chloride, bromide, sulfate, and nitrate), dissolved organic carbon, total organic carbon, total suspended solids, total dissolved solids, and dissolved metals. Since Third Quarter 2010, depth-to-water measurements and VOC samples have been collected quarterly or semiannually from all 26 monitoring wells installed along and near the PRB. The locations of the monitoring wells associated with PRB performance monitoring are shown on Figure 8.

Section 3.2 presents the results of the A-Zone PRB performance monitoring and discusses the effectiveness the A-Zone PRB to date.

3.0 EFFECTIVENESS OF REMEDIAL PROGRAM

3.1 B-ZONE CHEMICAL OXIDATION

Field observations during the five injection events conducted from February 2008 to April 2010 indicated that the potassium permanganate solution was distributed throughout the targeted treatment area and was chemically active. These observations included coloration of the groundwater, potassium and magnesium detections, and ORP measurements, as summarized below. Upon dissolution, permanganate ions cause the solution to turn purple, which provides an indicator mechanism of chemical activity. The presence of purple coloration was observed in groundwater in most injection wells, and potassium and manganese were detected in all monitoring wells within the injection area during the three post-injection monitoring events. Additionally, the ORP levels peaked during each injection event, as expected.

Of the 10 wells initially identified as ISCO performance monitoring wells (Section 2.2), nine are currently sampled in accordance with the Self-Monitoring Program. These wells consist of seven B-Zone wells and two A2-Zone wells (screened within the deep A-Zone horizon, 33 to 38 feet bgs) (Figure 7). Test well TW-1 was previously sampled during the ISCO performance monitoring events; however, it is not part of the Self-Monitoring Program and is no longer sampled.

Water levels are measured at the nine ISCO performance monitoring wells during the First and Third Quarters. The Self-Monitoring Program currently specifies that the performance monitoring wells are to be sampled semiannually (five wells), annually (three wells), or biennially (one well). The most recent Sitewide groundwater sampling event occurred in July 2017 and was documented in the *Third Quarter 2017 Monitoring Report* (ERM 2017c), submitted to the Water Board in October 2017. The most recent groundwater sampling event that included all nine wells occurred in the First Quarter 2016. The results of the performance monitoring events associated with the five ISCO injection events and routine groundwater monitoring events conducted through 2017 are summarized in Table 1.

As shown in Table 1 and illustrated on Figure 9 for TCE, following the five injection events, VOC concentrations were greatly reduced in four of the five performance monitoring wells within the injection area (MW-11B,

MW-12B, MW-35B, and MW-36B); these reductions were rapid and sustained. Shortly after the injections were completed, VOC concentrations rebounded in MW-13B (the well furthest downgradient within the injection area) and MW-8B (located downgradient of the injection points). Since 2012, VOC concentrations have also markedly decreased in those two wells. Concentration rebounds are often observed due to back-diffusion of chemicals from the aquifer matrix following ISCO treatment, but the progressive decrease in overall concentrations throughout this treatment area following multiple injection events demonstrates that the remediation program has been effective at reducing VOC mass in the source area.

The ISCO program was designed as a remedy for the underlying B-Zone; however, the ISCO injections appear to have impacted conditions at A2-Zone wells MW-13A2 and MW-35A2, which are included as ISCO performance monitoring wells (Figure 9). After initial sharp decreases, concentration rebounds were also observed in these two wells; since then and over the past year, detections of CVOCs have decreased markedly at these two locations, with some increases noted in the concentrations of TCE degradation products. The following subsections summarize VOC concentration trends in the B-Zone wells.

Trichloroethene

Since the start of the ISCO injections, significant decreases in VOCs have been observed in the B-Zone monitoring wells within the targeted injection area (Table 1). Figures 9 and 10 illustrate decreasing TCE concentration trends in these monitoring wells. During the last semiannual monitoring events in 2017 (February/March and July), TCE concentrations ranged from 0.354 µg/L in MW-12B to 456 µg/L in MW-13B. MW-34B is sampled biennially and TCE was detected in this well at an estimated value less than the reporting limit (0.22 µg/L) when it was last sampled in January 2016. The current footprint of TCE in B-Zone groundwater is depicted on Figure 9 based on the First Quarter 2017 monitoring data and shows a notably smaller footprint compared with the pre-ISCO TCE footprint in the B-Zone shown on Figure 7.

The most significant TCE decrease since the implementation of the ISCO injections has been observed in MW-11B (from 13,000 to 336 µg/L), which is located next to injection well INJ-2 and is the well with the highest historical TCE concentrations. MW-12B, MW-35B, and MW-36B, located further downgradient of the injection wells, have also shown TCE concentrations at least one order of magnitude lower (Table 1 and Figure 9). While TCE concentrations in the two wells furthest downgradient

(MW-13B and MW-8B) have not decreased as dramatically as in the wells closest to the injection wells, noteworthy decreases have been observed since 2012, and the current TCE concentrations are lower than pre-injection levels. As groundwater continues to flow downgradient from the treatment area, CVOC concentrations are expected to further decline in MW-13B and MW-8B.

Cis-1,2-Dichloroethene and trans-1,2-Dichloroethene

Cis- and trans-1,2-DCE, which are intermediate degradation products of PCE and TCE, are found in groundwater in the targeted treatment area at concentrations at least an order of magnitude lower than TCE. Prior to the injection program, cis-1,2-DCE ranged in concentration from non-detect to 1,200 µg/L. Following oxidant injections, cis-1,2-DCE concentrations have decreased in the ISCO performance monitoring wells in the treatment area such that the latest detections are at or below the lower end of the pre-injection range of detections. Based on the most current data from the 2017 events (February/March and July), the concentrations of cis-1,2-DCE range from 0.238 µg/L in MW-36B to 121 µg/L in MW-12B and MW-13B. Cis-1,2-DCE was not detected in MW-34B when it was last sampled in January 2016.

Trans-1,2-DCE is currently non-detect or below the 10 µg/L cleanup standard in all performance monitoring wells.

1,1-Dichloroethene

1,1-DCE concentrations in the ISCO performance monitoring wells have fluctuated over time and have shown an overall decline in most wells since implementation of the ISCO injections. Prior to the injection program, 1,1-DCE ranged in concentration from non-detect to 780 µg/L in the B-Zone wells. Based on the most current data from the 2017 events (February/March and July), the concentrations of 1,1-DCE range from 0.602 µg/L in MW-36B to 18.6 µg/L in MW-13B. 1,1-DCE was detected at an estimated value less than the reporting limit (0.29 µg/L) in MW-34B when it was last sampled in January 2016.

Vinyl Chloride

Prior to the injection program, vinyl chloride ranged in concentration from 32 to 150 µg/L in the B-Zone wells. Based on the most current data from the 2017 events (February/March and July), vinyl chloride is present in wells MW-11B, MW-12B, and MW-13B at concentrations ranging from 9.59 to 97.8 µg/L. Vinyl chloride was not detected in wells MW-8B,

MW-35B, or MW-36B during the last (2017) sampling event. Vinyl chloride was not detected in MW-34B when it was last sampled in January 2016. Vinyl chloride concentrations are stable or decreasing at all well locations except MW-12B. At MW-12B, vinyl chloride detections jumped an order of magnitude between the First and Third Quarters 2015; concentrations again rose during the next event in the First Quarter 2016, and have been slowly decreasing since then (97.8 µg/L during the last event). This well is immediately upgradient of a row of injection wells that separates it from downgradient well MW-35B. Vinyl chloride had not been detected in well MW-35B until 2010 and is currently non-detect.

The results from the B-Zone ISCO performance monitoring indicate that the ISCO injection events have been successful in reducing VOC concentrations in B-Zone groundwater throughout the source area (Table 1), making significant progress toward reaching remedial standards. As shown in the summary table below, concentrations of TCE in B-Zone wells within the core of the on-site source area are significantly lower than pre-remediation results.

TCE Reductions in ISCO Performance Monitoring Wells

Well ID	Pre-Remediation TCE Concentration, µg/L	Most Recent TCE Concentration, µg/L
MW-11B	24,000	336
MW-12B	161	0.8
MW-13B	6,300	456
MW-35B	440	16

Figure 10 presents time-series plots of total CVOC results associated with the B-Zone ISCO performance monitoring wells. These plots illustrate the decreasing or generally stable TCE concentrations since implementation of the source area remediation. As shown on this figure, from 2011 through 2015, well MW-13B may have been affected by rebound mechanisms that are sometimes observed on other ISCO sites. During the three monitoring events conducted since First Quarter 2016, concentrations in this well have decreased markedly.

It is anticipated that VOC concentrations in B-Zone wells will continue to decrease over time. As part of this 5-year remedy effectiveness evaluation, ERM assessed the suitability of the groundwater monitoring performed under the Self-Monitoring Program to assess the long-term effectiveness of this remediation measure. As summarized in this report, over the past

several years, VOC concentrations in groundwater within the ISCO treatment area have stabilized or are decreasing. Therefore, ERM is proposing to continue the groundwater monitoring program, with annual monitoring of the ISCO performance monitoring wells as discussed in Section 4. Based on the assessment presented in this report, no additional ISCO injection events are necessary or planned.

3.2 *A-ZONE PRB*

The primary objective of the PRB is to reduce CVOC concentrations in A-Zone groundwater. The PRB was constructed to remediate CVOCs in both the shallow A- and A2-Zones; however, only the shallow A-Zone can be directly assessed for VI risk because the A2-Zone is isolated from vadose zone by the overlying shallow A-Zone, as noted in Section 1.2.1. As presented in Section 1.4, the Order presented two cleanup standards for groundwater, including California MCLs that apply to all groundwater and indoor air VI groundwater cleanup standards that additionally apply to shallow A-Zone groundwater downgradient of the PRB (and beneath the Colony Park neighborhood).

The basis for the indoor air VI groundwater cleanup standard reflects the fact that the immediate objective of groundwater cleanup associated with the PRB is to reduce VI risk beneath the Colony Park neighborhood. Accordingly, groundwater PRB performance evaluation and the soil vapor and indoor air monitoring programs are principally focused on assessing ongoing VI risk. Further, the VIP systems are intended to operate as an engineering control until potential VI risks are reduced.

PRB effectiveness in remediating VOCs in A-Zone groundwater can be assessed by comparing VOC concentrations in wells installed on either side of the PRB and by directly evaluating VOC trends in A-Zone wells downgradient of the PRB following its installation.

Groundwater samples from the eight monitoring wells installed prior to the PRB installation were analyzed for VOCs in September 2007, prior to the PRB construction. Sixteen additional wells were installed after PRB installation. These wells were also installed in pairs with the upgradient well placed approximately 4 feet from the PRB and the downgradient well approximately 4 feet from the PRB (i.e., 8 feet between wells). These 24 PRB performance monitoring wells (depicted on Figure 8) are listed below:

Well pairs located approximately 8 feet apart (downgradient wells located 4 feet from the PRB)

- MW-42A and MW-37A
- MW-43A and MW-38A
- MW-44A and MW-39A
- MW-44A2 and MW-39A2
- MW-45A and MW-40A
- MW-45A2 and MW-40A2
- MW-46A and MW-41A
- MW-46A2 and MW-41A2

Well pairs located approximately 60 feet apart (downgradient wells located 15-20 feet from the PRB)

- MW-33A and MW-32A
- MW-33A2 and MW-32A2
- MW-31A and MW-30A
- MW-31A2 and MW-30A2

In addition, MW-15A and MW-15A2 are approximately 40 feet downgradient of the PRB and, although they do not have corresponding upgradient pairs, these wells provide an assessment of groundwater conditions slightly further downgradient of nearby wells MW-32A/MW-32A2 and MW-30A/MW-30A2, which are approximately 15 to 20 feet from the PRB.

The results of the PRB performance monitoring completed on these 28 wells are summarized in Table 1. TCE concentration trends in A-Zone performance monitoring wells are presented on Figure 11. PRB performance observations are presented below starting with the shallow A-Zone (which directly assesses VI risk), followed by A2-Zone wells (which do not directly assess VI risk).

- In six out of the seven shallow A-Zone well pairs, TCE concentrations have generally been consistently lower in the downgradient wells relative to concentrations in the corresponding upgradient well since PRB installation. One shallow A-Zone well (MW-30) exhibits TCE concentrations that have remained higher than the corresponding well upgradient of the PRB (MW-31A).
- In seven of the nine shallow A-Zone wells located up to 40 feet downgradient of the PRB, TCE concentrations have declined significantly following PRB installation, or have remained very low (either non-detect or slightly above the reporting limit). As discussed below, two isolated exceptions include MW-30A and MW-32A, which are located in the plume core and 15 to 20 feet downgradient of the PRB.

- TCE concentrations in MW-30A have fluctuated, but overall have remained generally stable since PRB installation. In MW-32A, TCE concentrations have trended upward over the past 2 years; however, despite isolated historical exceptions, have consistently remained below pre-PRB concentrations. Significant declines in TCE concentrations following PRB installation observed in MW-15A (located slightly cross-gradient/ downgradient of MW-30A and MW-32A in the plume axis) suggest the PRB has been successful at remediating groundwater in the core of the plume and that MW-30A and MW-32A results represent slight outliers to the PRB's overall effectiveness at treating shallow A-Zone groundwater.
- Among the nine shallow A-Zone wells immediately downgradient of the PRB (within 40 feet downgradient), only one well remains above the indoor air VI groundwater cleanup standard for TCE of 530 µg/L (MW-32A), and four wells remain above the standard for vinyl chloride of 3.8 µg/L (MW-30A, MW-37A, MW-38A and MW-45). As described below, vinyl chloride is a breakdown product of TCE, and its presence may indicate the PRB's effectiveness in breaking down TCE. Concentrations of vinyl chloride in these wells are relatively low, with the highest, recent detection of 20.3 µg/L in MW-30A. The fact that only a handful of wells remain above the cleanup standards is due to the effectiveness of the PRB in reducing CVOC concentrations and indicates that the remaining VI risk appears to be low.
- Although the A2-Zone wells are not suitable for assessing VI risk, these well pairs provide additional information with which to evaluate PRB performance. In two out of the five A2-Zone well pairs, TCE concentrations have generally been lower in the downgradient wells relative to concentrations in the corresponding upgradient well since PRB installation. Furthermore, TCE concentrations in all A2-Zone wells downgradient of the PRB have exhibited declining or overall stable trends following installation of the PRB.
- Degradation of TCE into breakdown products, including cis-1,2-DCE and vinyl chloride, is evident in both shallow A- and A2-Zone wells downgradient of the PRB. Evidence of this process further supports the conclusion that the PRB is effectively reducing CVOCs as groundwater flows through it. The observation is typified by a slight increase in the relative concentrations of degradation products following installation of the PRB in June 2009, as indicated by CVOC results in wells MW-30, MW-32, MW-32A2, and MW-40A2 (Table 1).

Tests completed during and immediately following PRB installation, such as pulse interference testing and active resistivity monitoring, indicate that the PRB has been installed in conformance with all design specifications. Groundwater monitoring data are currently collected from these wells semiannually to annually. As part of this 5-year remedy effectiveness evaluation, ERM assessed the suitability of the groundwater monitoring performed under the Self-Monitoring Program to assess the long-term effectiveness of this remediation measure. As summarized in this report, CVOC concentrations near the PRB have decreased markedly since the PRB was installed, and have generally stabilized over time. Therefore, ERM is proposing to continue the groundwater monitoring program, with annual monitoring of the PRB performance monitoring wells as discussed in Section 4.

3.3 SOIL VAPOR

The historical detections of VOCs in indoor air in some residences within the Colony Park neighborhood suggest that the VOCs may have migrated from shallow groundwater into subsurface pore spaces and indoor air. The Self-Monitoring Program currently specifies that the soil vapor probes are to be sampled semiannually (12 wells), or annually (seven wells). Soil vapor monitoring data from these monitoring events were evaluated to assess VOC concentrations in soil vapor and the potential effectiveness of groundwater remediation measures in reducing VOC concentrations in the subsurface. The results of the soil vapor sampling completed through the Third Quarter 2017 are summarized on Table 2. Note that this table only presents results for those VOCs most frequently detected within the commingled groundwater plume, including PCE, TCE, cis-1,2-DCE, 1,1-DCE, and vinyl chloride. TCE and vinyl chloride concentration trends in soil vapor samples are presented on Figures 12 and 13, respectively, and discussed below.

As shown in Table 2 and on Figure 12, every soil vapor probe downgradient of the PRB that reported TCE over the cleanup standard in the indoor air monitoring Study Area has demonstrated significant decreasing TCE trends since the PRB was installed. Furthermore, with the exception of SVP-5R, TCE detections in soil vapor have routinely been lower than the 1,200 $\mu\text{g}/\text{m}^3$ soil vapor cleanup standard since the PRB was installed, as summarized below.

TCE Concentrations in Vapor Probes in Indoor Air Monitoring Study Area

Vapor Probe Location	Maximum Pre-PRB TCE Concentration, $\mu\text{g}/\text{m}^3$	Current TCE Concentration, $\mu\text{g}/\text{m}^3$
SVP-1	6,500	75.4 (no exceedances of cleanup standard since 2009)
SVP-2	26,000	139 (no exceedances of cleanup standard since 2012)
SVP-4	19,000	10 (last exceedance of cleanup standard in 2016)
SVP-5R	53,000	1,610
SVP-6	200	214 (no historical exceedances of cleanup standard)
SVP-12	9.4	Non-Detect (no historical exceedances of cleanup standard)
SVP-13	Non-Detect	Non-Detect (no historical exceedances of cleanup standard)

As shown above, of the soil vapor probes in the Study Area, only one (SVP-5R) continues to report TCE concentrations above the cleanup standard; however, as shown above and on Figure 12, historical concentrations have decreased significantly. Exceedances have been observed at SVP-4 only twice since 2012.

Similarly, where detected, concentrations of TCE degradation products, including cis-1,2-DCE and vinyl chloride, have also demonstrated general decreasing trends within the indoor air monitoring Study Area since 2008 and 2009. Since 2010, vinyl chloride is the only TCE breakdown product that has been detected in these soil vapor probes at concentrations greater than its respective cleanup standard ($32 \mu\text{g}/\text{m}^3$). Trends graphs for vinyl chloride (Figure 13) demonstrate consistent historical downward trends and low or non-detect current concentrations. All the vinyl chloride detections reported since 2011 have been lower than the cleanup standard, with two exceptions:

- At SVP-14, the first quarter 2016 result (51.4 µg/m³) was higher than the cleanup standard; this detection is anomalous, and represented the only exceedance of the vinyl chloride cleanup standard at this location.
- At SVP-15-5, vinyl chloride detections were consistently higher than the cleanup standard; this vapor probe was replaced in 2012 with probe SVP-15-5R, in which vinyl chloride exceedances have not been observed since 2012.

Based on the soil vapor data collected to date, groundwater remediation measures appear to have been effective in reducing CVOC concentrations in soil vapor. At most locations within the indoor air monitoring Study Area (downgradient of the PRB), TCE concentrations, in particular, have decreased by an order of magnitude or more. Concentrations of TCE degradation products, including cis-1,2-DCE and vinyl chloride, have also demonstrated general decreasing trends in these soil vapor probes. Furthermore, since the PRB was installed, CVOC detections in soil vapor have routinely been lower than the soil vapor cleanup standards. The decreasing CVOC concentration trends observed in soil vapor appear to correlate to the reduction of CVOC concentrations in A-Zone groundwater downgradient of the PRB and further demonstrate the effectiveness of the PRB in reducing CVOC concentrations in the shallow subsurface.

Soil vapor monitoring data are collected from Site soil vapor probes semiannually or annually in accordance with the Self-Monitoring Program. As part of this 5-year remedy effectiveness evaluation, ERM assessed the suitability of the soil vapor monitoring performed under that program to assess the long-term effectiveness of the groundwater remediation measures. As summarized in this report, CVOC concentrations in soil vapor have decreased substantially since the PRB was installed and generally continue to show decreasing trends over time. Therefore, ERM is proposing to continue monitoring soil vapor, with annual sampling of the soil vapor probes specified in the Self-Monitoring Program, as discussed in Section 4.

Based on the significant declines of CVOCs in soil vapor resulting from the effectiveness of the A-Zone PRB described above, the potential risk posed by VI into indoor air within homes in the Study Area has been reduced substantially. Twelve years of soil vapor monitoring demonstrate the current footprint of elevated CVOCs in soil vapor is significantly smaller and now isolated.

In addition to the low and downward-trending CVOC concentrations in soil vapor (and shallow A-Zone groundwater discussed previously), 13

years of indoor air monitoring in the Colony Park Neighborhood indicate that the current VI risk remains low. As presented in the annual indoor air monitoring reports, TCE and its degradation products have not been detected (and confirmed) above applicable ESLs in indoor air samples collected from any homes since 2007.²

Furthermore, the concentrations of TCE and its degradation products in the crawl space samples collected beneath the homes without VIP systems (which represent air samples collected immediately above bare ground) rarely exceed their respective ESLs. The fact that TCE and its degradation products in samples collected from unmitigated air beneath the living spaces in these homes is consistently below ESLs (or are non-detectable) further indicates low VI risk.

For the above reasons, ERM is proposing to reduce the footprint of the indoor air monitoring Study Area, as discussed in Section 4.

3.4 *VAPOR INTRUSION PREVENTION*

Analytical results of annual indoor air monitoring are summarized in Table 3. Figures 14 and 15 depict the latest 2017 indoor air sampling results, which include the results at the seven residential homes with installed VIP systems (depicted by black borders). It should be noted that indoor air in most buildings will contain detectable levels of VOCs, regardless of whether the building overlies a subsurface source of vapors, because there are numerous potential indoor sources (often called fugitive emission or background sources) of these compounds (e.g., consumer products, building materials, combustion sources) (USEPA 2008).

The indoor air quality sample results in Table 3 are compared to the residential indoor air ESLs established by the Water Board, as documented in the Water Board's ESL Lookup Tables updated in February 2016 (Water Board 2016a). Detections of CVOCs in indoor air are summarized below. When exceedances of ESLs were reported in indoor air samples, the standard procedure was to collect a repeat set of samples from those locations to confirm the exceedances; many of these exceedances were not confirmed in those follow-on samples. In addition, the crawl space results were reviewed; if there were no exceedances in the

² Confirmed ESL exceedances exclude (1) exceedances that were not observed in follow-up samples collected immediately after the initial exceedance and (2) exceedances at locations where TCE or its breakdown products were not detected in the associated crawl space samples, which suggests a source other than the underlying soil or groundwater (e.g., fugitive emissions).

crawl space results for a given CVOC, the indoor air exceedances were considered representative of fugitive sources.

Detections of CVOCs that were confirmed to be greater than the ESLs in indoor air within the seven homes with operating VIP systems are summarized below.

Trichloroethene

Since installation of the VIP systems, TCE measured in indoor air within the homes with operating VIP systems has been either not detected or detected at concentrations below the ESL established at the time of sampling ($0.48 \mu\text{g}/\text{m}^3$ as of 2016) in the crawl spaces of the seven residences with VIP systems. As described above, the VIP system at one home (1005 Stimel Drive) was discontinued following testing in April 2015.

TCE has historically been measured above the ESL in locations other than the crawl space at certain homes (1002 Hampton Drive, 1005 Stimel Drive, and 1221 Thames Drive), as described in the 2012 *Status Report on Remedy Effectiveness* (ERM 2012b). During the 2013 to 2017 5-year review period, TCE was not detected above the ESL in indoor air samples collected from homes with VIP systems.

Vinyl Chloride

During the 2013 to 2017 5-year review period, vinyl chloride was detected above the ESL of $0.031 \mu\text{g}/\text{m}^3$ at only one location with an operating VIP system (1002 Hampton Drive). Indoor air samples collected within both of the second floor bedrooms at 1002 Hampton Drive contained vinyl chloride at concentrations ranging from 0.0321 to $0.0840 \mu\text{g}/\text{m}^3$. However, vinyl chloride has not been detected in the crawl space (sampled above the vapor barrier) and has been detected only at low concentrations (below the ESL) in first-floor samples. During the most recent sampling event (September 2017), vinyl chloride was not detected in the second-floor bedrooms or in other samples collected within the home, including the crawl space and the first floor. During the most recent sampling event in September 2017, vinyl chloride was not detected at the point of discharge to the atmosphere. The VIP system at this residence has been inspected, repaired, and modified on a quarterly basis, as determined to be necessary from the inspections, to ensure proper operation. Given the lack of vinyl chloride detections in the crawl space, and the fact that this home has an operating VIP system in place, ERM believes that the indoor air detections of vinyl chloride in this home are attributable to fugitive

emission sources within the home rather than from soil vapors attributable to underlying groundwater conditions.

Vinyl chloride concentrations in indoor air have been either non-detect or below the ESL in the remaining six residential homes with VIP systems.

Additional VOCs

Additional VOCs detected in indoor air include PCE; 1,2-DCA; 1,1,1-TCA; and aromatic hydrocarbons (BTEX) (Table 3). Benzene is the constituent most commonly detected above the ESL and is also present in ambient air. As discussed earlier, these VOCs do not originate from the Site.

Based on the indoor air monitoring data collected to date, the VIP systems currently installed in seven residential homes have been effective in significantly reducing VOC concentrations in indoor air. Concentrations of TCE, 1,1-DCE, and vinyl chloride during the 2013 to 2017 5-year review period were non-detect or below the residential indoor air ESLs in the crawl spaces and indoor air of these homes, with the exception of a vinyl chloride detection in 1002 Hampton Drive that was attributed to a fugitive emission sources within the home.

As part of this 5-year remedy effectiveness evaluation, ERM assessed the suitability of the VIP systems to reduce potential VI to indoor air within the homes where the VIP systems are installed.

Indoor air monitoring data confirms that the VIP systems are operating as designed. Based on significant declines of CVOCs in soil vapor resulting from the effectiveness of the A-Zone PRB, ERM is proposing to reduce the geographic extent of the indoor air monitoring Study Area. Ongoing inspections and repairs of VIP systems installed beneath two homes outside the proposed revised Study Area (1221 Thames Drive and 1006 Hampton Drive) will be discontinued because continued operation of these systems is no longer warranted. ERM will offer the homeowners decommissioning and removal of the VIP systems at these homes at no charge. These proposed changes are further discussed in Section 4.

4.0

PROPOSED CHANGES TO THE SELF-MONITORING PROGRAM

This section summarizes proposed changes to the performance Self-Monitoring Program and the rationale for those changes. Specifically, this section proposes reductions in (1) the number of homes that are to be included within the indoor air Study Area monitoring program and (2) the frequency of soil vapor and groundwater sampling.

4.1

GROUNDWATER MONITORING PROGRAM

On behalf of the Hookston Station parties, ERM prepared a monitoring reduction request letter, *Proposed Revisions to the Self-Monitoring Program* (2017 Monitoring Reduction Request), dated 10 February 2017, to the Water Board that included, among other things, the following:

- Cease monitoring at four upgradient monitoring wells that solely monitor a third party's VOC impacts; and
- Reduce the monitoring frequency at 35 groundwater monitoring wells from semiannual to annual.

As described in the letter, groundwater remediation work was completed approximately 7 years ago in 2009 and 2010. Extensive groundwater monitoring data collected since that time demonstrate generally stable to decreasing concentration trends with low sample variability, and most of these wells have low individual constituent concentrations. Therefore, continued monitoring on an annual basis should be appropriate to evaluate future VOC concentrations.

In its response letter dated 29 March 2017, the Water Board approved the requested monitoring reductions, with the exception of the following 19 groundwater monitoring wells:

A-Zone wells downgradient of the PRB:

- MW-15A
- MW-30A
- MW-32A

A2-Zone wells at Hookston Station Property:

- MW-13A2
- MW-14A2
- MW-35A2

A2-Zone wells upgradient of the PRB:

- MW-31A2
- MW-33A2
- MW-45A2
- MW-46A2

A2-Zone wells downgradient of the PRB:

- MW-15A2
- MW-30A2
- MW-32A2
- MW-39A2
- MW-41A2

B-Zone wells:

- MW-8B
- MW-12B
- MW-13B
- MW-14B

As described in the letter, the Water Board was "... still requiring semi-annual sampling for a select group of monitoring wells that may be used with the upcoming status report on remedy effectiveness that is due by December 21, 2017 (Task 9 of the Order)." It should be noted that the report on remedy effectiveness is due by the end of the calendar year (December 31, 2017) pursuant to Task 9 of the Order. As requested by the Water Board, two quarters of 2017 sampling data for the 19 groundwater monitoring wells listed above have been included in this status report. The data continue to demonstrate generally stable to decreasing concentrations of VOCs at most locations. Accordingly, annual groundwater monitoring should be appropriate to characterize future trends, and ERM proposes to reduce the monitoring frequency at the 19 wells listed above from semiannual to annual.

4.2

INDOOR AIR/SOIL VAPOR MONITORING PROGRAM

As summarized above, ERM has conducted indoor air monitoring within the designated Study Area that encompasses 38 private residences within the Colony Park neighborhood (pending access) since 2013. ERM has also conducted soil vapor monitoring in this area since 2005.

Subsequent to the establishment of the Study Area, concentrations of CVOCs in A-Zone groundwater and soil vapor have declined significantly as a result of the effectiveness of the A-Zone PRB installed upgradient of the Study Area and overall degradation of CVOCs. Only one soil vapor probe (SVP-5R) was reported to have a TCE concentration above the Hookston Station cleanup standard; TCE degradation products are not currently detected at any of the soil vapor probes in the Study Area above cleanup standards.

Accordingly, the potential risk posed by VI into indoor air has been reduced significantly. Therefore, ERM proposes to reduce the geographic extent of the indoor air monitoring Study Area to reflect the current,

isolated extent of CVOCs in soil vapor beneath the Colony Park neighborhood. Specifically, ERM proposes to reduce the annual indoor air monitoring program to comprise the 14 homes located on the block west of Stimel Drive and south of Thames Drive. This revised Study Area is shown on Figure 16. Rationale for this change is as follows:

- Twelve years of monitoring from the soil vapor monitoring network has demonstrated significant CVOC declines and an isolated current footprint of elevated TCE (Figure 12). TCE are delineated in soil vapor at levels below the cleanup standard to the north along Thames Drive by SVP-14 and SVP-6 and to the east/northeast along Stimel Drive by SVP-1 and SVP-2.
- As presented in the annual indoor air monitoring reports, TCE and its degradation products have not been detected and confirmed above applicable ESLs in indoor air samples collected from any homes since 2007.²

Indoor air monitoring of the 24 homes outside the proposed revised Study Area will be discontinued. This will eliminate the inconvenience of sampling imposed on these homeowners for collecting data that are no longer warranted. ERM proposes to continue monitoring soil vapor annually within 14 homes located in the revised Study Area.

Additionally, ongoing inspections and repairs of VIP systems installed beneath two homes outside the proposed revised Study Area (1221 Thames Drive and 1006 Hampton Drive) will be discontinued because continued operation of these systems is no longer warranted. ERM will offer the homeowners decommissioning and removal of the VIP systems at these homes at no charge.

The soil vapor data continue to demonstrate generally stable to decreasing concentrations of VOCs. Accordingly, annual soil vapor monitoring should be appropriate to characterize future trends. Therefore, ERM proposes to change the monitoring frequency to annual for the 12 probes currently specified in the Self-Monitoring Program for semiannual monitoring.

5.0 SCHEDULE AND REPORTING

The next Status Report on Remedy Effectiveness will be submitted on 31 December 2022, and every 5 years to the extent required afterward, in consultation with the Water Board and pursuant to the Order. These later reports will provide a further evaluation of the A-Zone PRB and the B-Zone ISCO remedial technologies with respect to their effectiveness in removing VOCs in groundwater. In addition, these reports will continue to evaluate the effectiveness of the remaining operational VIP systems to reduce potential VI into indoor air.

More frequent reports on performance monitoring of the remedial measures discussed in this report will also be documented in the reports described below.

5.1 B-ZONE CHEMICAL OXIDATION

Nine ISCO performance monitoring wells are currently monitored as part of the Sitewide groundwater monitoring program in accordance with the Self-Monitoring Program. Water levels are measured at each of these wells during the First and Third Quarters. The Self-Monitoring Program currently specifies that B-Zone wells are to be sampled semiannually (five wells), annually (three wells), or biennially (one well). The most recent Sitewide groundwater sampling event occurred in July 2017 and was documented in the *Third Quarter 2017 Monitoring Report* (ERM 2017c), submitted to the Water Board in October 2017. The most recent groundwater sampling event that included all nine ISCO performance monitoring wells occurred in the First Quarter 2016.

The 20 B-Zone performance monitoring wells will next be monitored in the First Quarter 2018 and reported following the sampling event in accordance with the Self-Monitoring Program. As described in Section 4, ERM is proposing a sampling frequency reduction for the four B-Zone wells (MW-8B, MW-12B, MW-13B, and MW-14B) from semiannual to annual. These wells will be sampled during the comprehensive First Quarter 2018 monitoring event, and the Third Quarter monitoring 2018 event will no longer be performed.

5.2

A-ZONE PRB

Twenty-six PRB performance monitoring wells are currently monitored as part of the Sitewide groundwater monitoring program in accordance with the Self-Monitoring Program. Water levels are measured at each of these wells during the First and Third Quarters. The Self-Monitoring Program currently specifies that PRB performance monitoring wells are to be sampled semiannually (12 wells) or annually (14 wells). The most recent Sitewide groundwater sampling event occurred in July 2017 and was documented in the *Third Quarter 2017 Monitoring Report*, submitted to the Water Board in October 2017. The most recent groundwater monitoring event that included all 26 PRB performance monitoring wells occurred in the First Quarter 2017.

Water levels and VOC samples will be collected in 26 A-Zone PRB performance monitoring wells during the First Quarter 2018 and reported following the sampling event. As described in Section 4, ERM is proposing a sampling frequency reduction for the 19 A-Zone wells from semiannual to annual. These wells will be sampled during the comprehensive First Quarter 2018 monitoring event, and the Third Quarter monitoring 2018 event will no longer be performed.

5.3

SOIL VAPOR

Nineteen soil vapor probes are currently monitored in accordance with the Self-Monitoring Program, which specifies that soil vapor probes are to be sampled semiannually (12 probes) or annually (seven probes). The most recent performance monitoring occurred in July 2017 and was documented in the *Third Quarter 2017 Monitoring Report* (ERM 2017c), submitted to the Water Board in October 2017. The most recent sampling event that included all 19 soil vapor probes occurred in the First Quarter 2017.

Soil vapor data will be collected from the 19 soil vapor probes during the First Quarter 2018 and will be reported following the sampling event. As described in Section 4, ERM is proposing to change the monitoring frequency to annual for the 12 probes currently specified in the Self-Monitoring Program for semiannual monitoring.

5.4

INDOOR AIR MONITORING AND VAPOR INTRUSION PREVENTION

The findings of the 2017 indoor air sampling event (already completed) will be documented in the *Annual Indoor Monitoring Report* and submitted to the Water Board by 31 January 2018.

Annual indoor air sampling and VIP system inspections within the proposed revised Study Area will continue in 2018 and the findings will be documented by 31 January 2019. As discussed in Section 4, indoor air monitoring of the 24 homes outside the proposed revised Study Area will be discontinued.

Additionally, ongoing inspections and repairs of VIP systems installed beneath two homes outside the revised Study Area (1221 Thames Drive and 1006 Hampton Drive) will be discontinued because continued operation of these systems is no longer warranted. ERM will offer the homeowners decommissioning and removal of the VIP systems at these homes at no charge.

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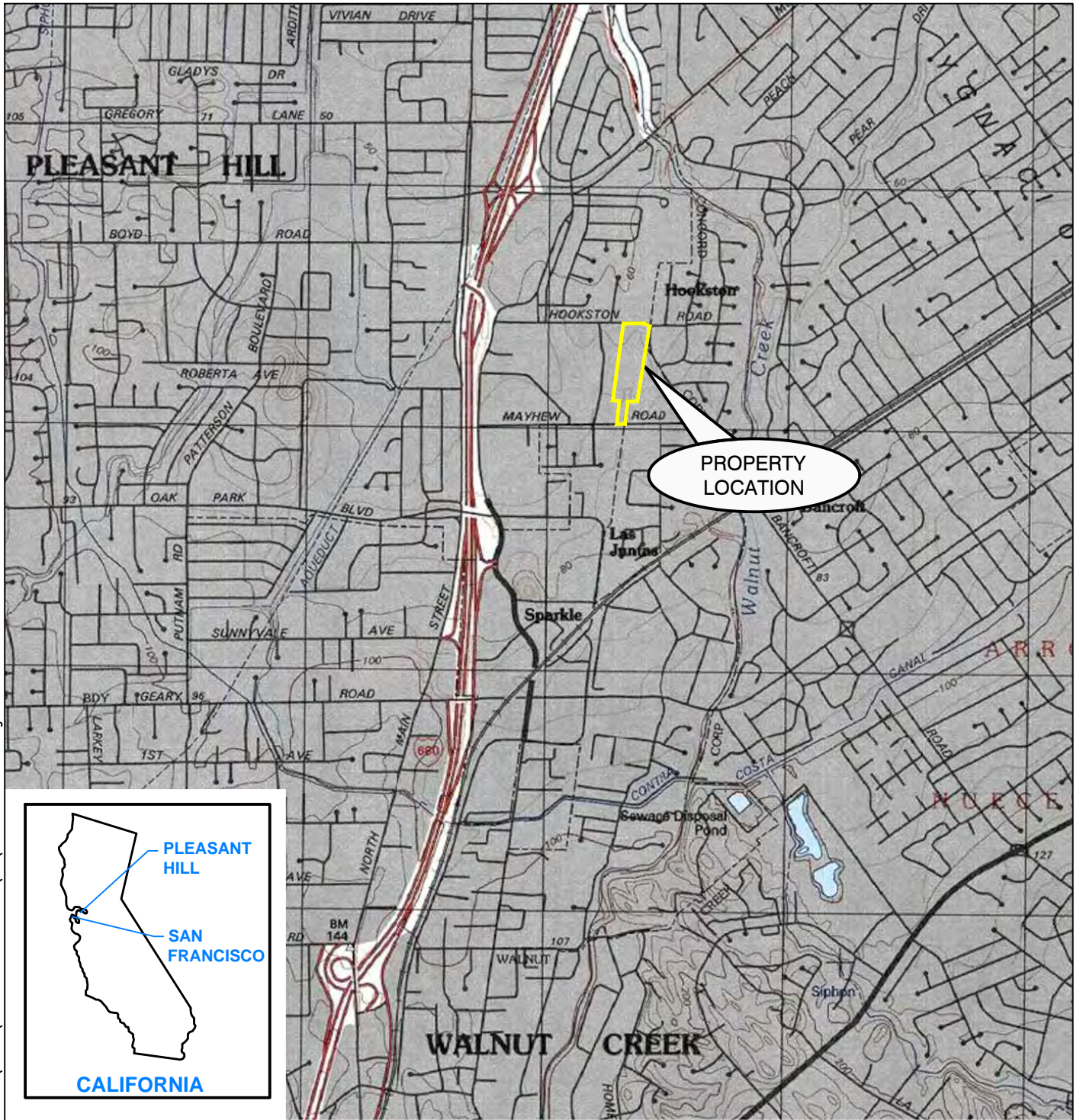
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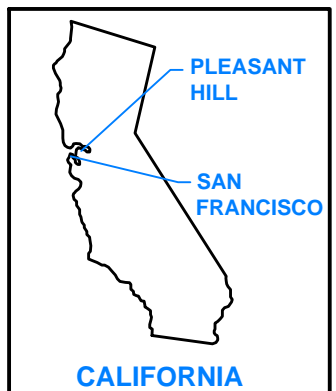
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Figures



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 J. Rahmani



SCALE 1: 24,000

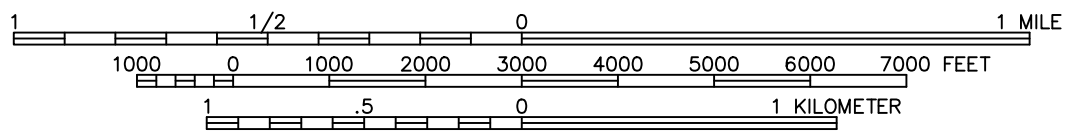



Figure 1
Property Location Map
Hookston Station
Pleasant Hill, California

References:
 TOPO!® Software
 U.S.G.S. 7.5 Minute Series (Topographic) Quadrangle,
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 Dated: 1995



Image Source: Google Earth Pro.
Dated: 3/11/2017

LEGEND

 Hookston Station Property Boundary

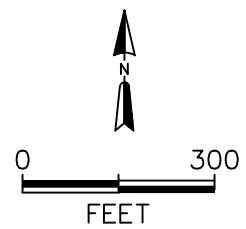
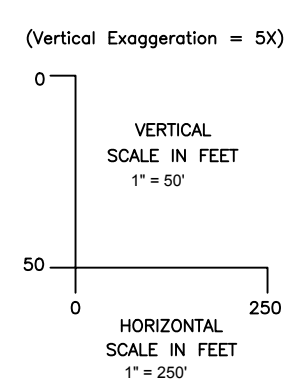
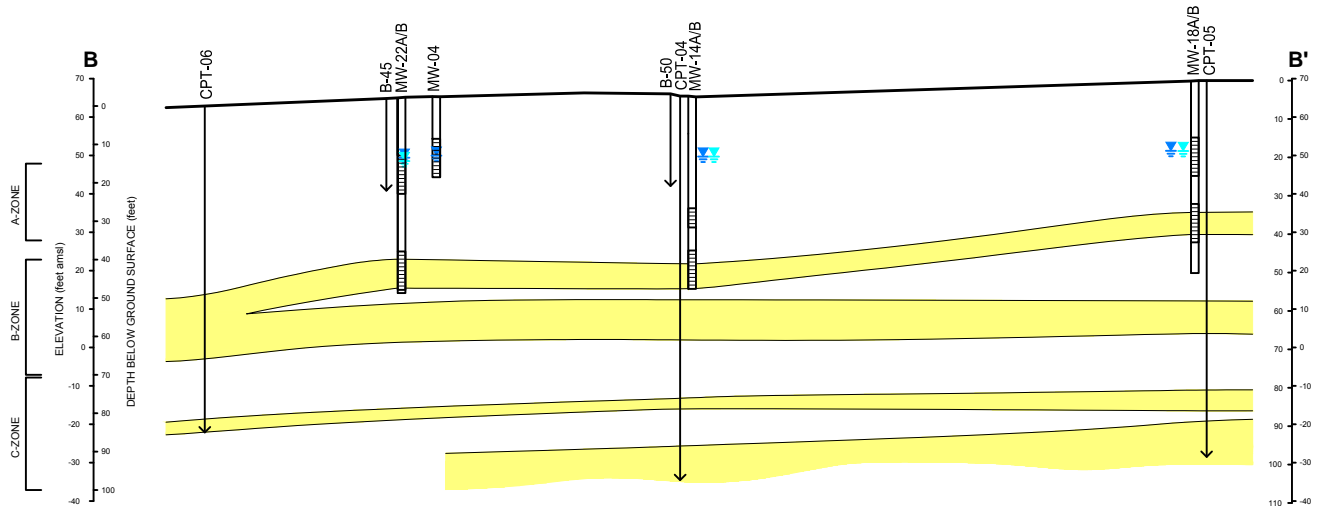
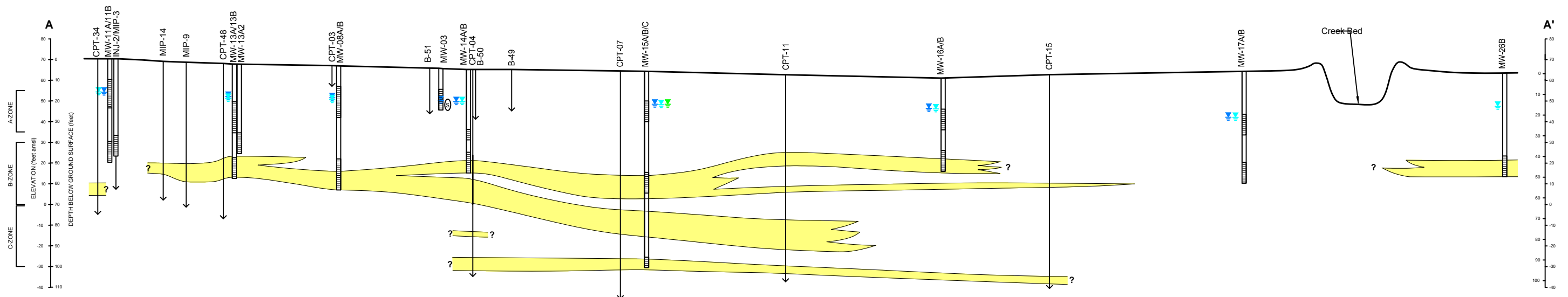
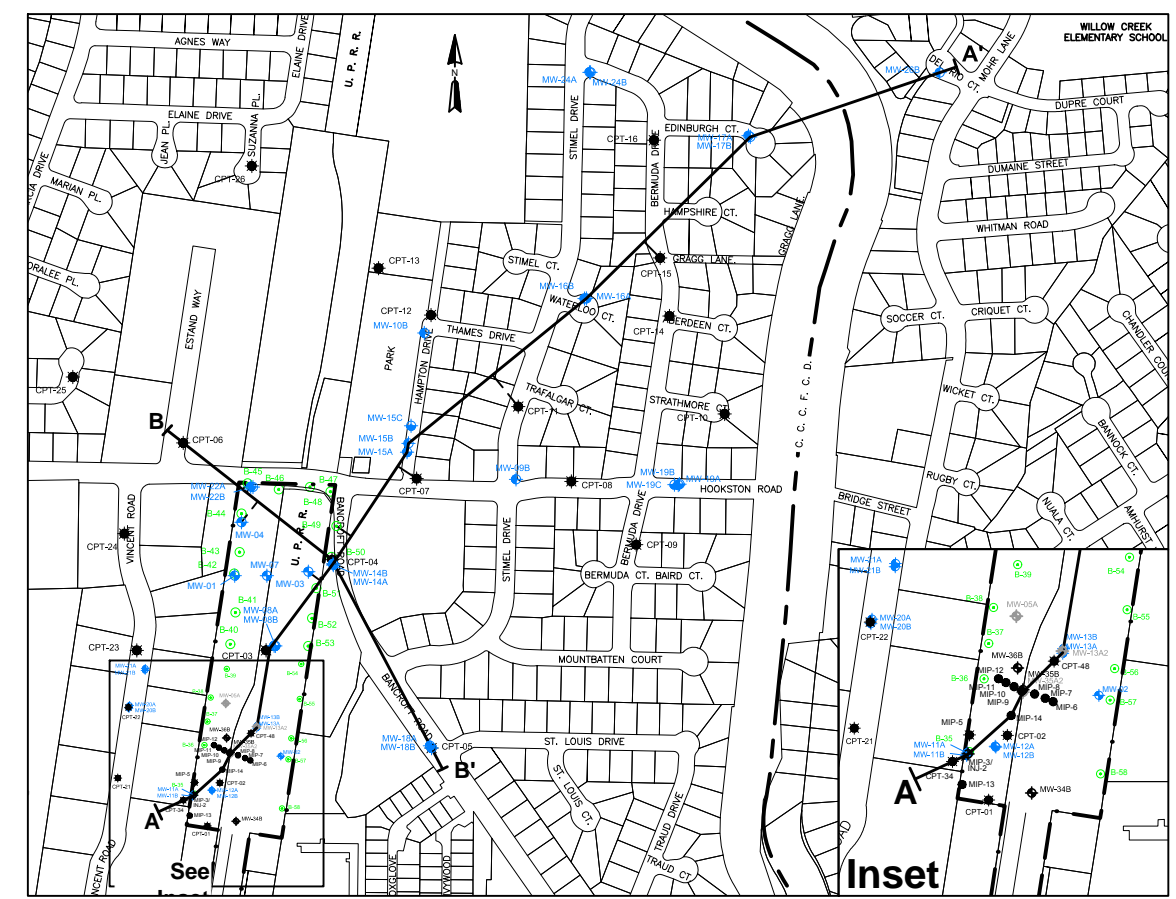


Figure 2
Hookston Station Vicinity Map
Hookston Station
Pleasant Hill, California



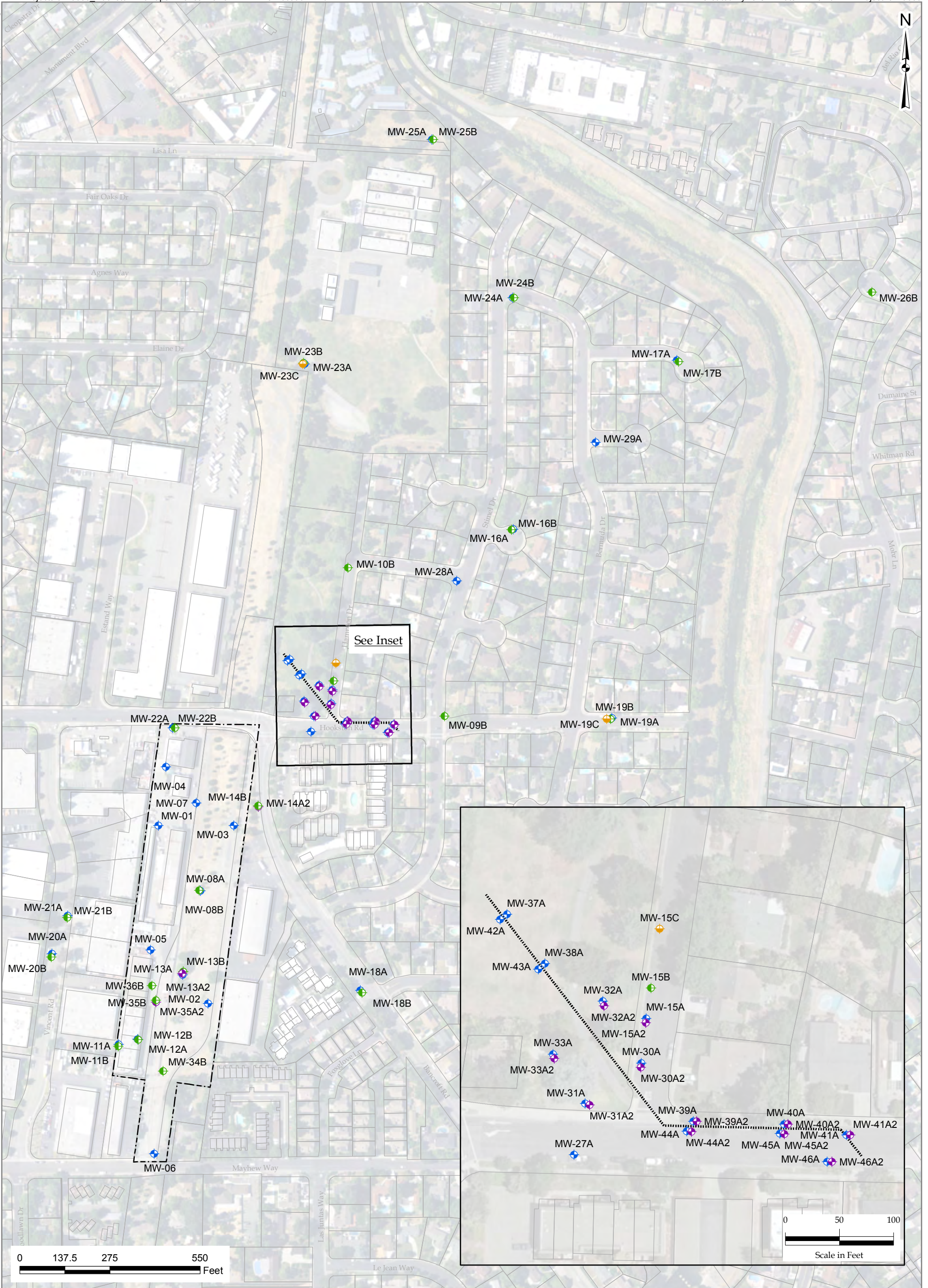
CROSS SECTION LOCATION MAP



- Legend**
- ◆ Monitoring Well, A Zone
 - ◆ Monitoring Well, B Zone
 - ◆ Monitoring Well, C Zone
 - CPT Ground Water Sample Location
 - Shallow Hydropunch Location
 - ⊗ Sewer Pipe
- A-Zone A-Zone Aquifer; Generally 15-35 ft below ground surface
- B-Zone B-Zone Aquifer; Generally 40-70 ft below ground surface
- C-Zone C-Zone Aquifer; Generally 70-100 ft below ground surface
- ▬ A-Zone Groundwater Elevation (ft amsl)
 - ▬ B-Zone Groundwater Elevation (ft amsl)
 - ▬ C-Zone Groundwater Elevation (ft amsl)
- Note: Water Levels measured on 25 January 2008

- MONITORING WELL
- Screened Interval
- HYDROPUNCH/CPT BORINGS
-
- 0 300 600 FEET
- Hookston Station Property Boundary
- Coarse-Grained Deposits

Figure 3
 Geological Cross Sections
 Hookston Station
 Pleasant Hill, California



- Legend**
- ◆ A-Zone Monitoring Well
 - ◆ A2-Zone Monitoring Well
 - ◆ B-Zone Monitoring Well
 - ◆ C-Zone Monitoring Well
 - Permeable Reactive Barrier
 - Parcel Boundaries
 - - - - Hookston Station Property Boundary

Figure 4
Monitoring Well Locations
Hookston Station
Pleasant Hill, California



LEGEND

- ⊕ Soil Vapor Monitoring Probe Location (5ft Below Ground Surface)
- ⊕◦ Nested Soil Vapor Monitoring Probe Location (5ft and 10ft Below Ground Surface)
- Hookston Station Property Boundary

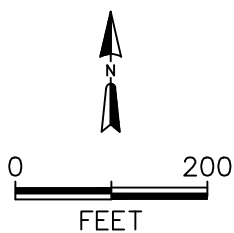
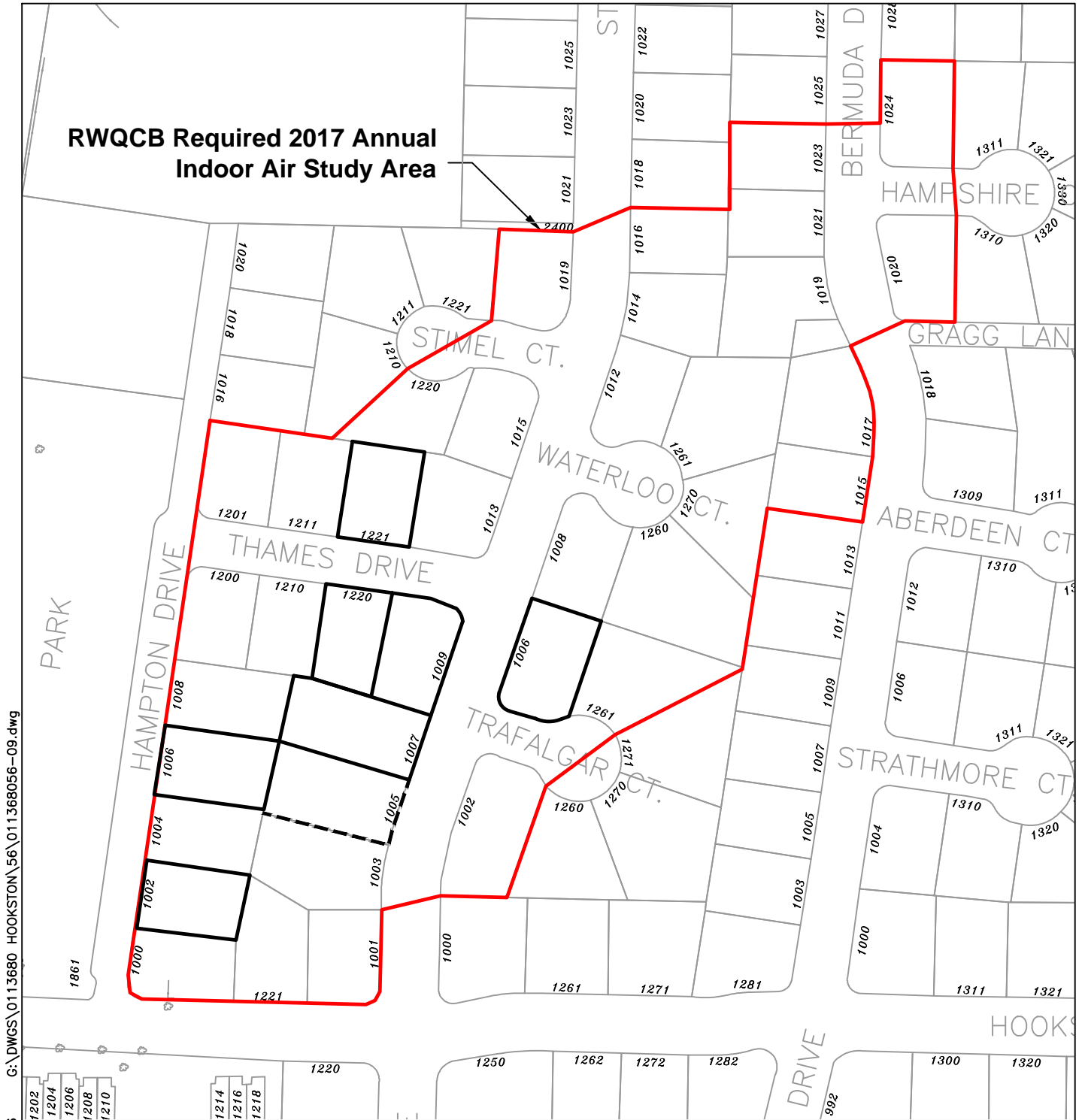


Figure 5
Soil Vapor Monitoring Probe Locations
Hookston Station
Pleasant Hill, California

RWQCB Required 2017 Annual Indoor Air Study Area

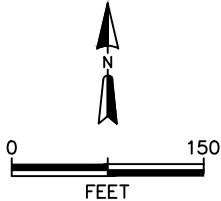


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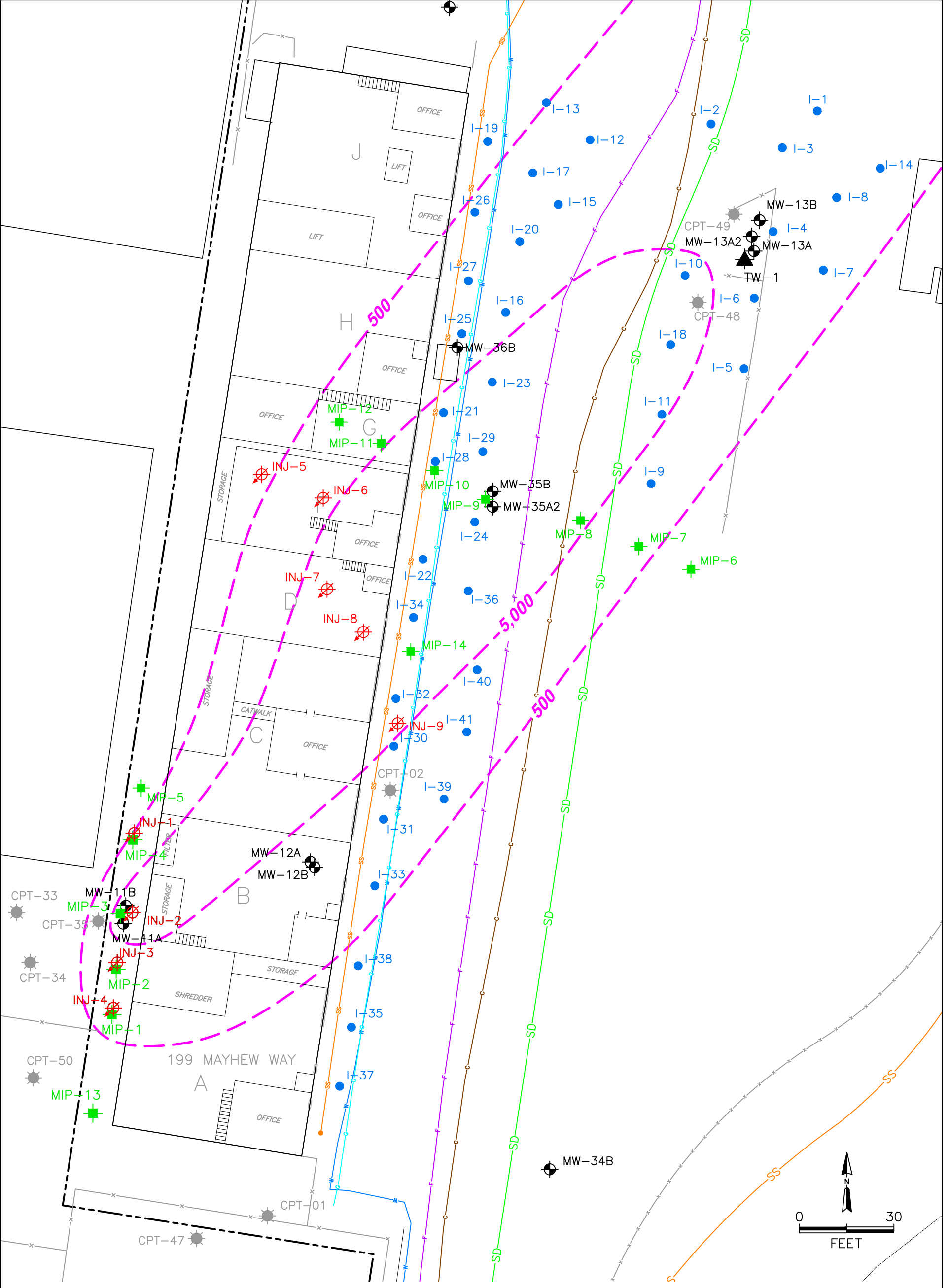
-  Hookston Station Property Boundary
-  VIP System was installed at the residence prior to the 2012 annual monitoring event
-  VIP System previously installed at this location, discontinued in 2015

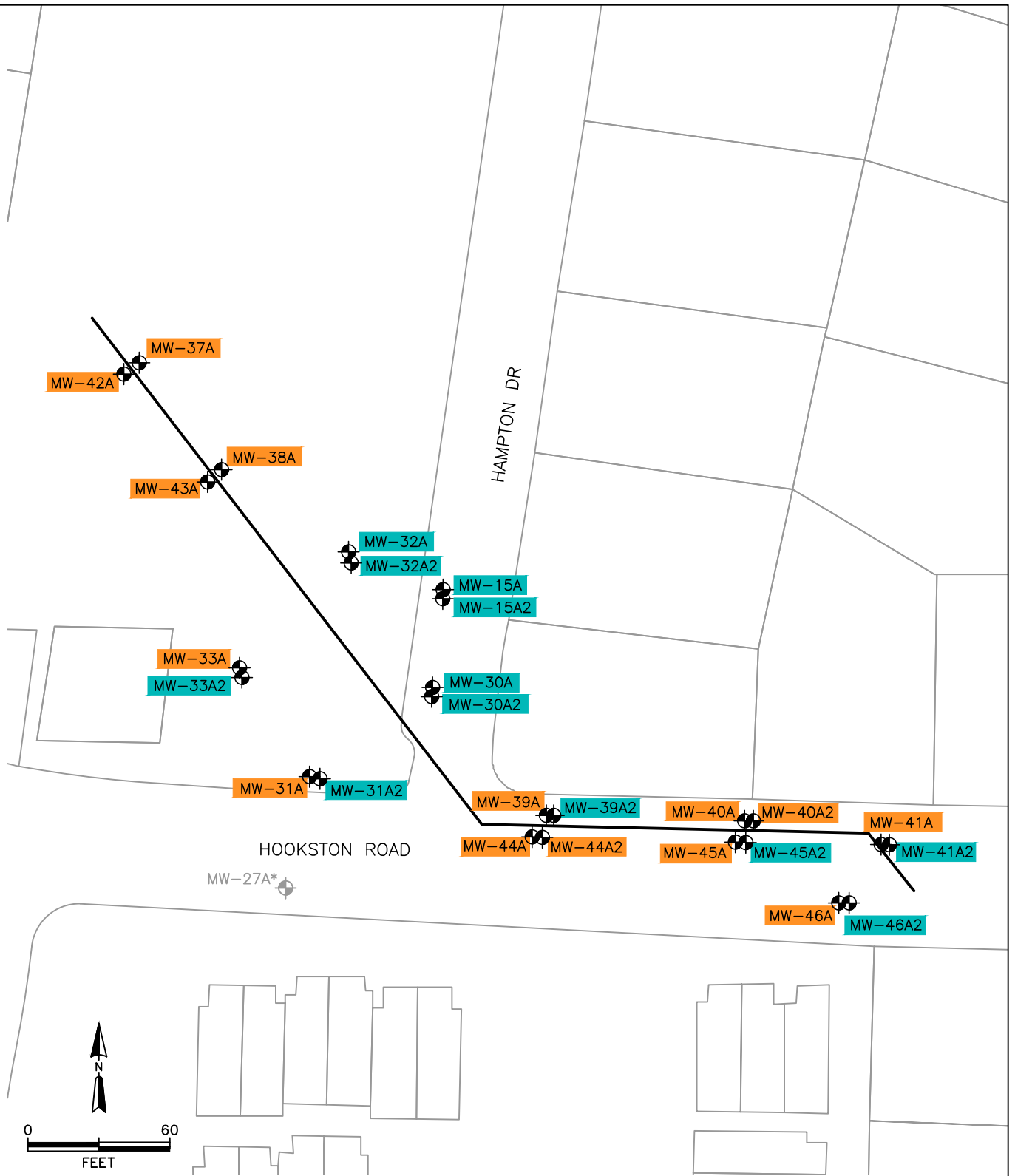
Figure 6
Vapor Intrusion Prevention (VIP) System Locations
Hookston Station
Pleasant Hill, California






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- | | |
|---|--|
| <ul style="list-style-type: none"> ● Monitoring Well Location ▲ Test Well ☼ CPT Boring ⊗ Injection Well (all injection events) ● Temporary Injection Point (1st injection event) ■ MIP Boring | <ul style="list-style-type: none"> --- Hookston Station Parcel Property Boundary — Gas Line — Sewer Line — Storm Drain Line — Water Line — Communications Line — Kinder Morgan Fuel Pipeline — Fence |
|---|--|
- TCE Concentration Contour ($\mu\text{g/L}$), Based on Baseline Sampling Results Obtained Prior to ISCO Injections

Figure 7
 ISCO Injection Program Locations
 Hookston Station
 Pleasant Hill, California



LEGEND

-  A-Zone Monitoring Well
-  Not Included in PRB Monitoring Program
-  Hookston Station Property Boundary

Current PRB Monitoring Frequency



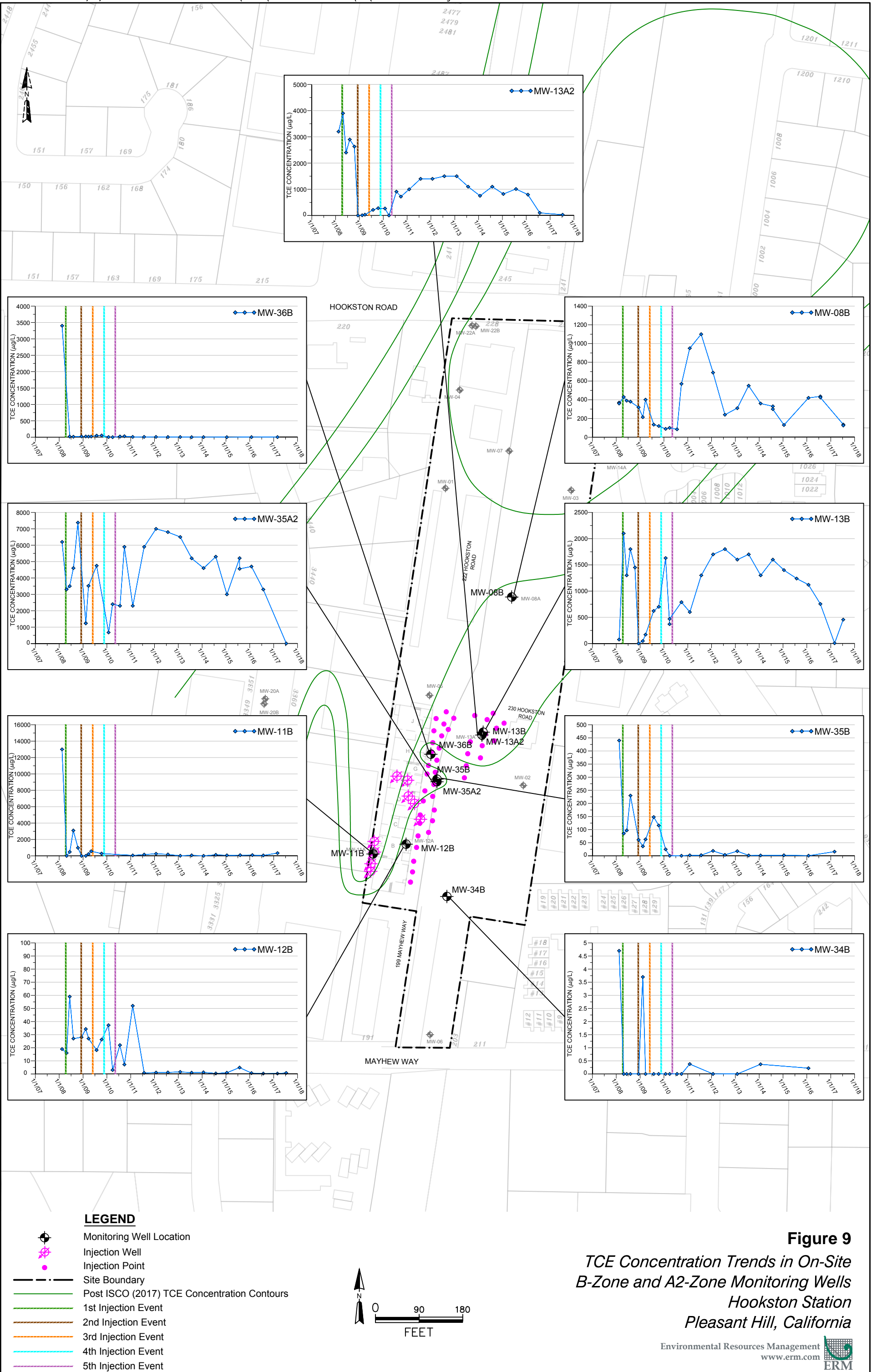
-  Semi-Annual
-  Annual

Figure 8
PRB Groundwater Monitoring Locations
Hookston Station
Pleasant Hill, California





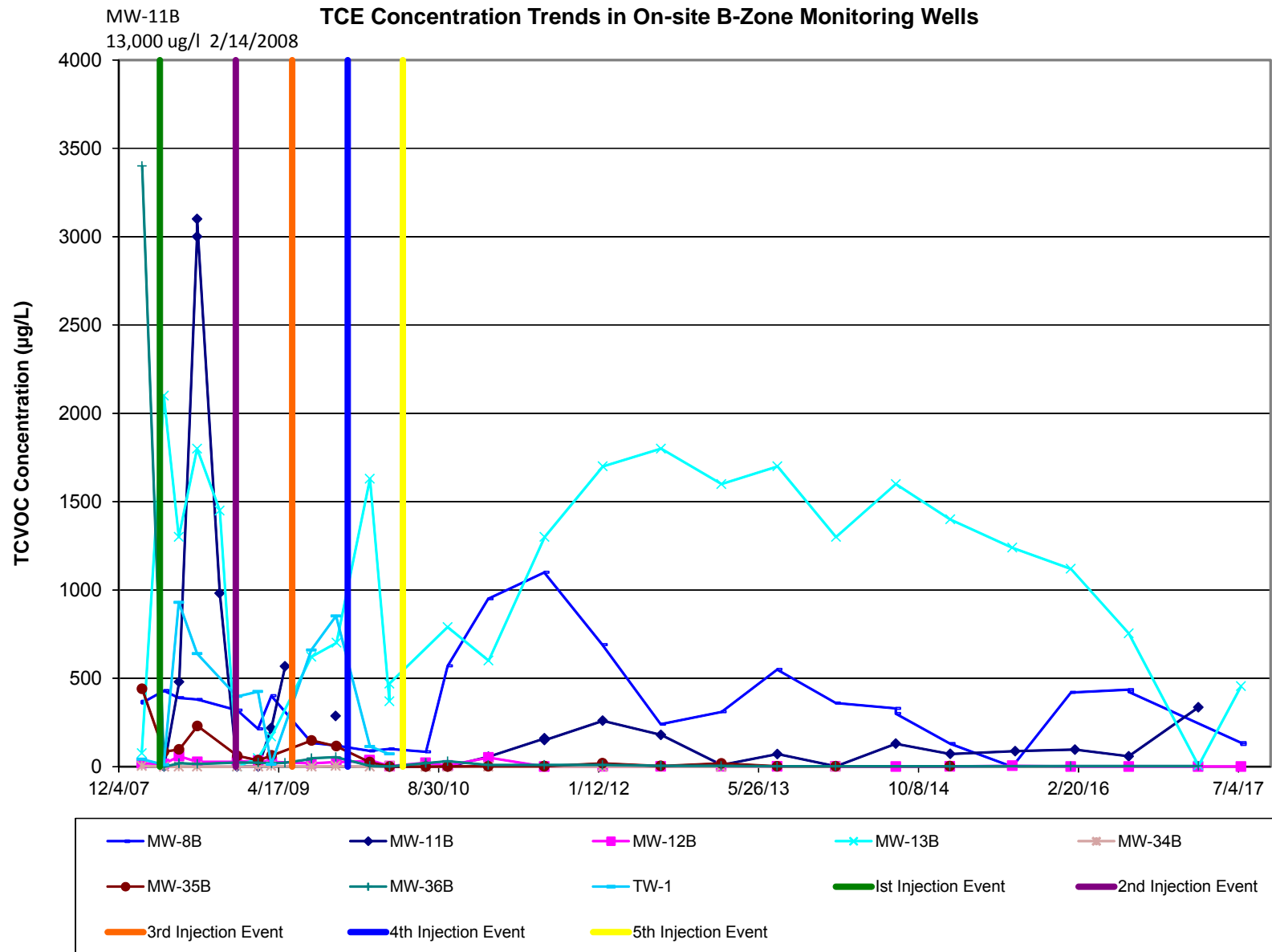
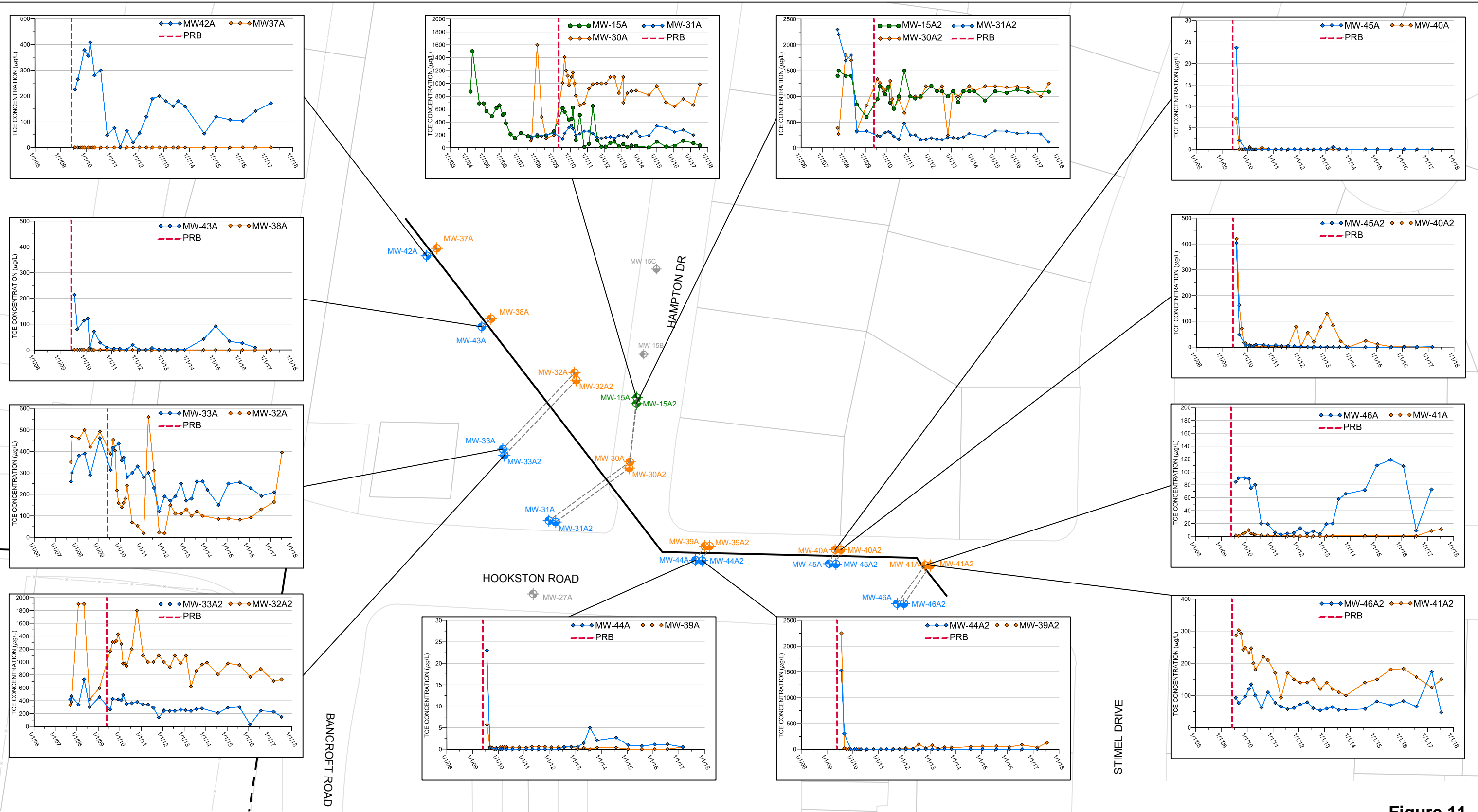


Figure 10
*TCE Trends in On-Site B-Zone Monitoring Wells
Hookston Station
Pleasant Hill, California*

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- A-Zone Monitoring Well
- A2-Zone Monitoring Well
- B-Zone Monitoring Well
- C-Zone Monitoring Well
- Well Pairing Link
- Hookston Station Property Boundary
- Zero-Valent Iron Permeable Reactive Barrier (PRB)
Note: Permeable reactive barrier installed June 2009

Note: For sample results that contained duplicate data, the higher value was used for graphing.

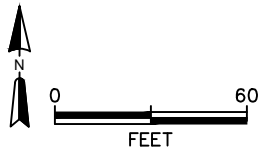
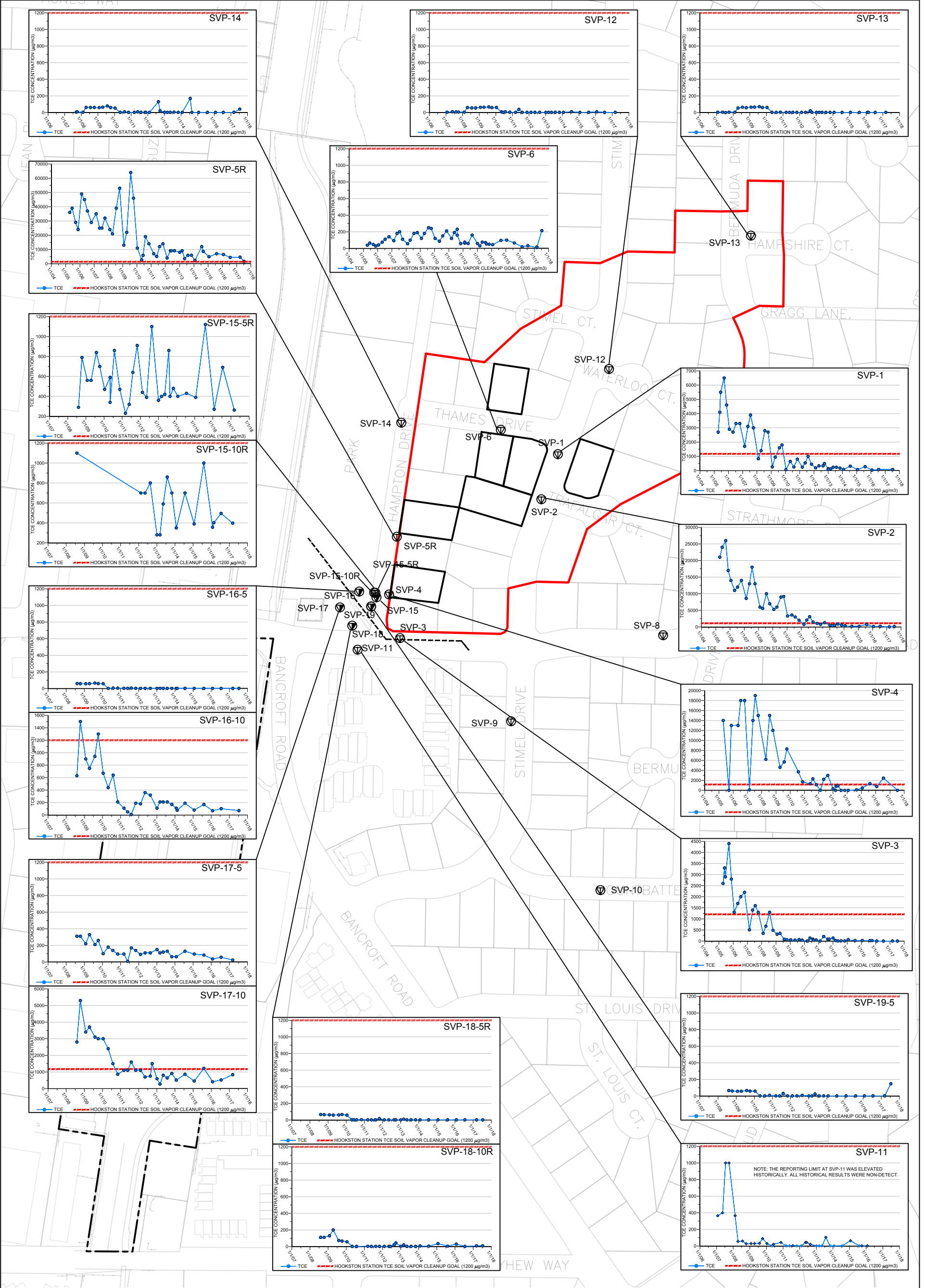


Figure 11
TCE Concentration Trend in Groundwater
A-Zone PRB Performance Monitoring
Hookston Station
Pleasant Hill, California



LEGEND

- ⊙ Soil Vapor Monitoring Probe Location (5ft Below Ground Surface)
- ⊙ Nested Soil Vapor Monitoring Probe Location (5ft and 10ft Below Ground Surface)
- Hookston Station Property Boundary
- - - Permeable Reactive Barrier
- ▭ Homes with Vapor Intrusion Prevention System Installed
- ▭ Indoor Air Monitoring Study Area

TCE = Trichloroethene
 Note: At locations with both former and replacement probe sample results, the graphs present only replacement probe sample results for presentation purpose.

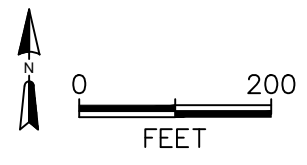
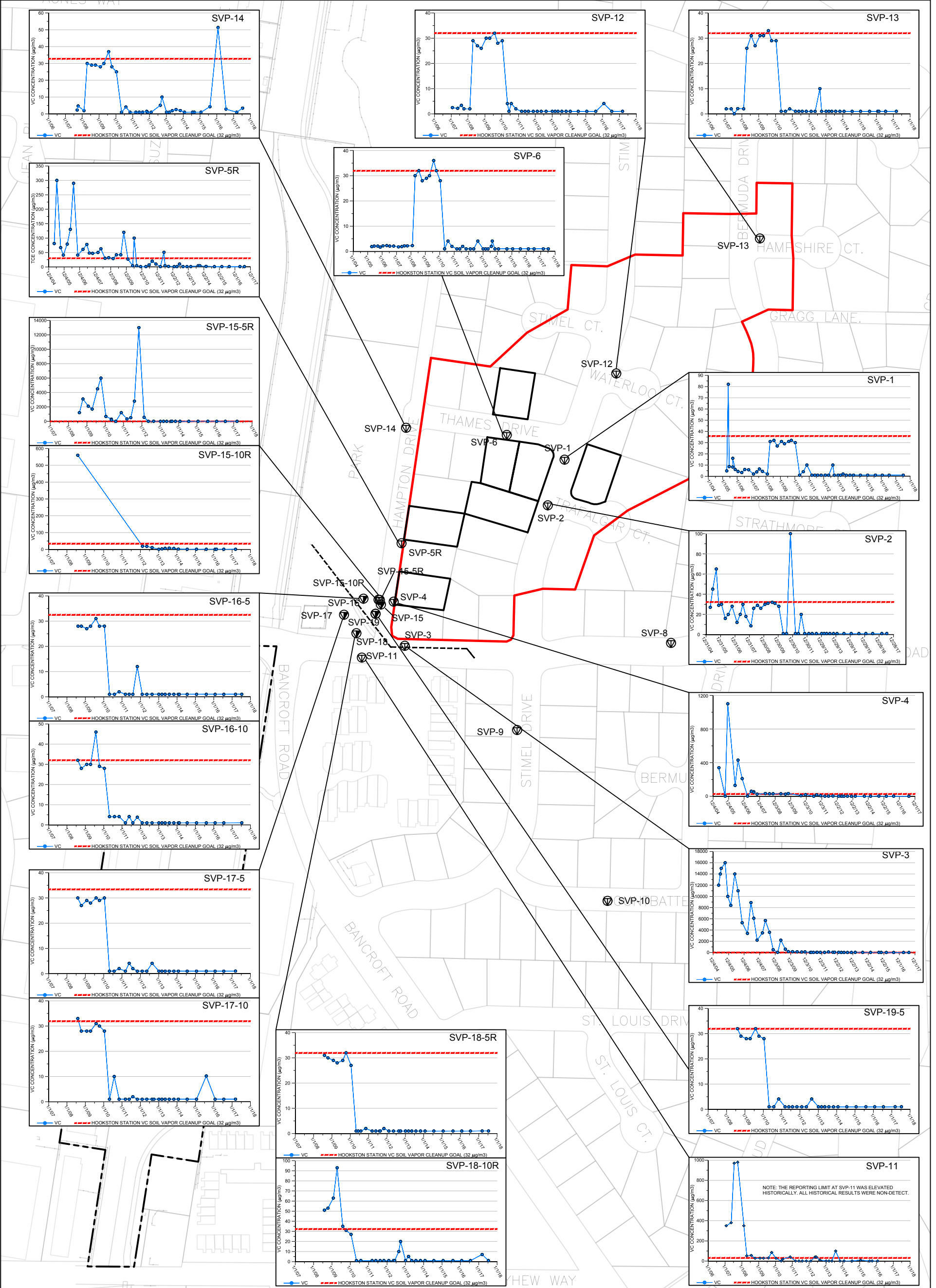


Figure 12
 TCE Trends in Soil Vapor
 Hookston Station
 Pleasant Hill, California



LEGEND

- ⊙ Soil Vapor Monitoring Probe Location (5ft Below Ground Surface)
- ⊙ Nested Soil Vapor Monitoring Probe Location (5ft and 10ft Below Ground Surface)
- - - Hookston Station Property Boundary
- - - Permeable Reactive Barrier
- ▭ Homes with Vapor Intrusion Prevention System Installed
- ▭ Indoor Air Monitoring Study Area

VC = Vinyl Chloride

Note: At locations with both former and replacement probe sample results, the graphs present only replacement probe sample results for presentation purpose.

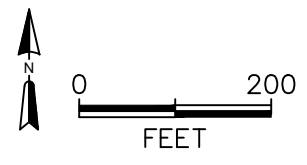
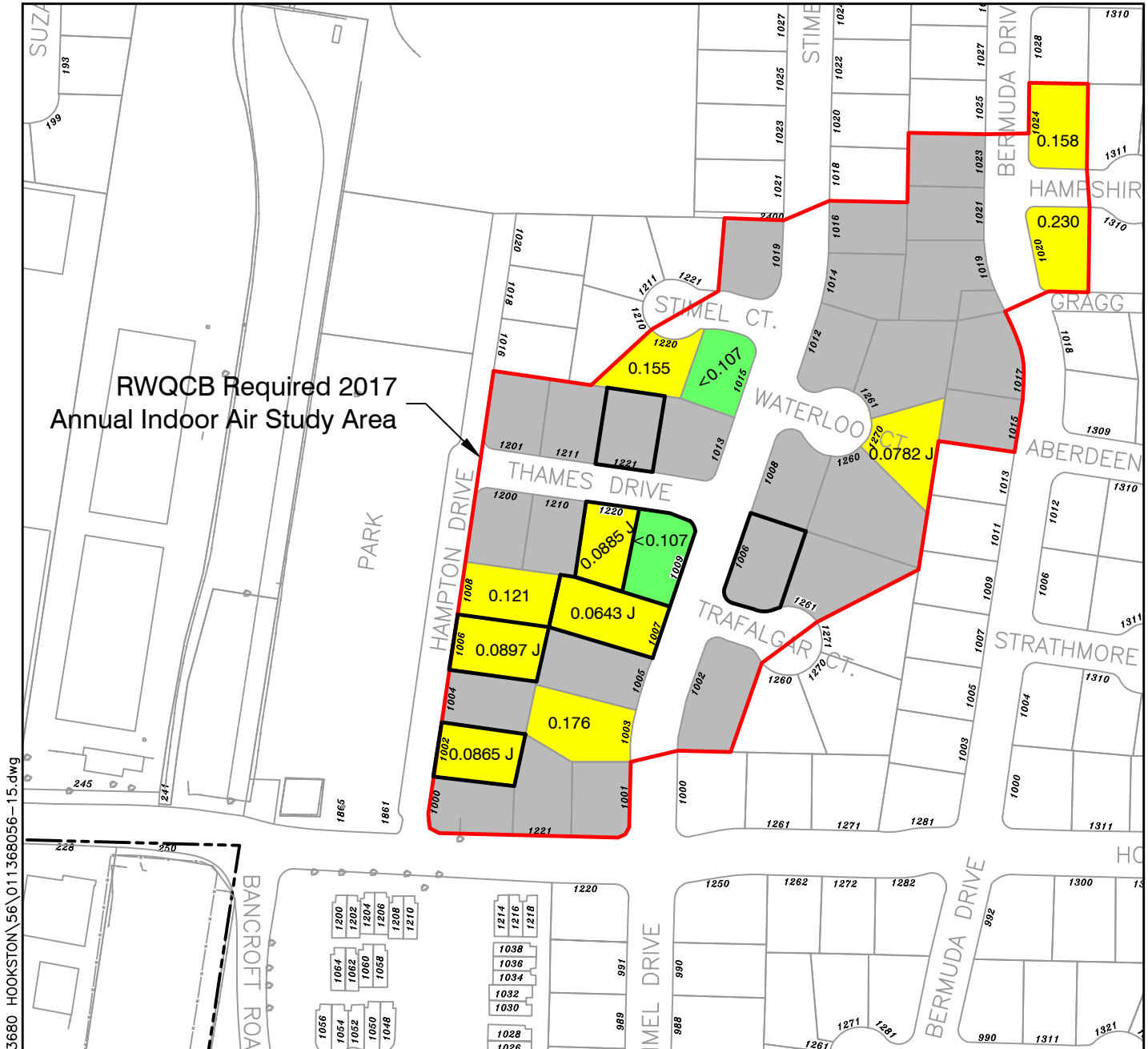


Figure 13
Vinyl Chloride Trends in Soil Vapor
Hookston Station
Pleasant Hill, California



RWQCB Required 2017 Annual Indoor Air Study Area

LEGEND

- Hookston Station Property Boundary
- TCE not detected in indoor air above laboratory reporting limit
- TCE detected in indoor air at a concentration equal to or less than the residential ESL ($0.48 \mu\text{g}/\text{m}^3$)
- TCE detected in indoor air at a concentration greater than the residential ESL ($0.48 \mu\text{g}/\text{m}^3$)
- Property owner/resident did not grant access for collecting indoor air quality samples during the 2017 annual monitoring program
- Vapor intrusion prevention system was operating at the residence during the 2017 annual monitoring event

J - Estimated Value

0.14 - Detected TCE concentration, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

<0.107 - Indicates TCE was not detected above the reporting limit of $<0.107 \mu\text{g}/\text{m}^3$

VIP - Vapor Intrusion Prevention

Note: Figure is based on the maximum TCE concentration detected in indoor air at each home sampled during 2017. Crawl space air results are not included.

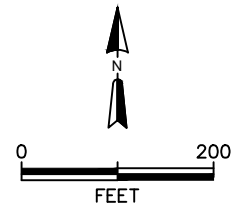
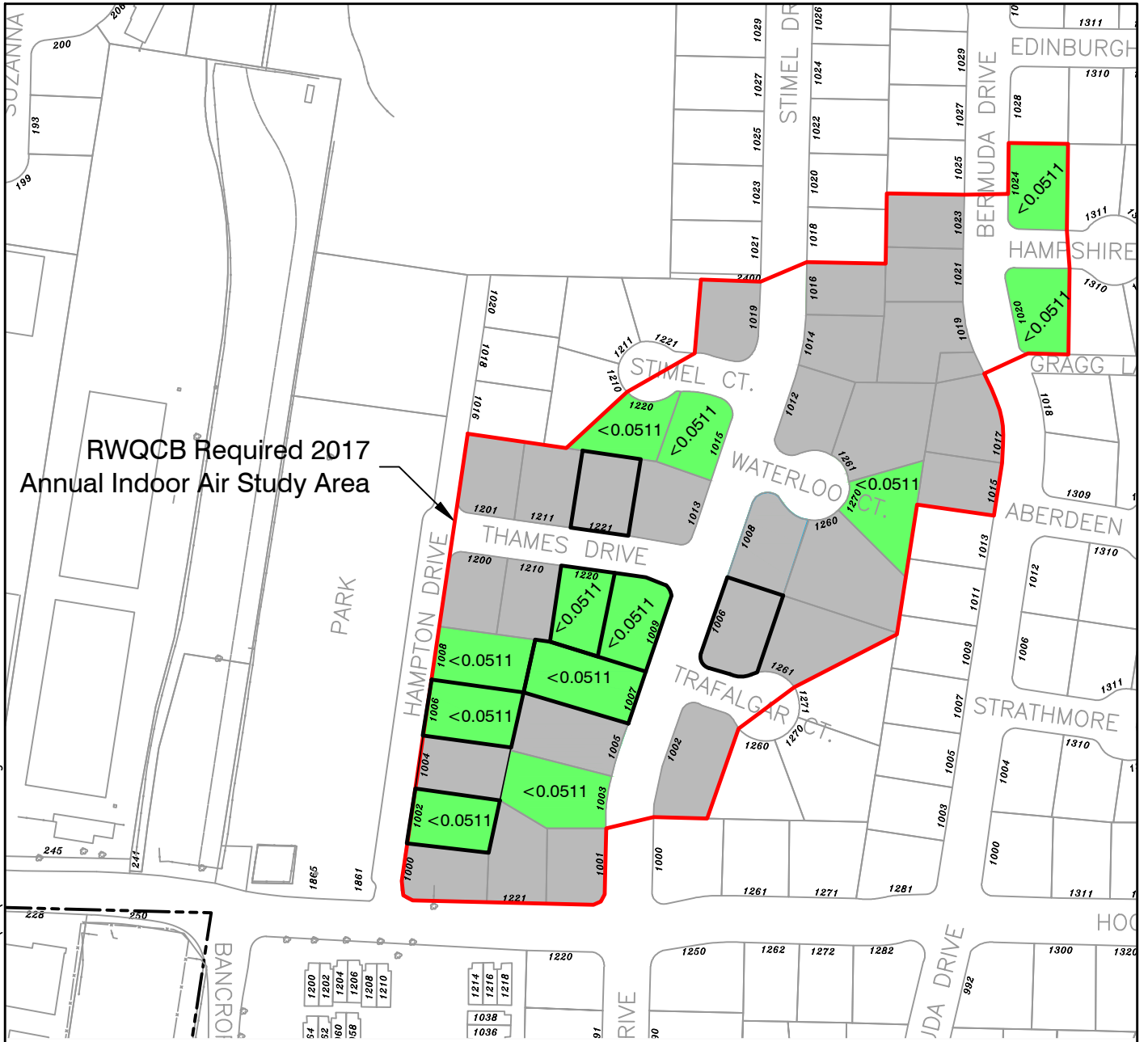


Figure 14
 2017 Indoor Air Results - TCE
 Hookston Station
 Pleasant Hill, California

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- Hookston Station Property Boundary
- Green box: Vinyl chloride not detected in indoor air above laboratory reporting limit
- Grey box: Property owner/resident did not grant access for collecting indoor air quality samples during the 2017 annual monitoring program
- Black outline: Vapor intrusion prevention system was operating at the residence during the 2017 annual monitoring event
- J - Estimated value
- 0.050 - Detected vinyl chloride concentration, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
- <0.0511 - Indicates vinyl chloride was not detected above the method detection level (MDL) or the laboratory reporting limit (RL). The RL is shown on figure.
- VIP - Vapor Intrusion Prevention

Note: Figure is based on the maximum vinyl chloride concentration detected in indoor air at each home sampled during 2017. Crawl space air results are not included.

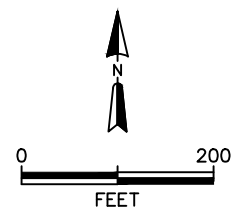


Figure 15
 2017 Indoor Air Results - Vinyl Chloride
 Hookston Station
 Pleasant Hill, California

RWQCB Required 2017 Annual Indoor Air Study Area

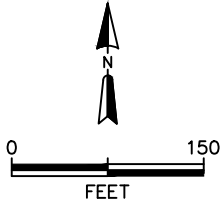
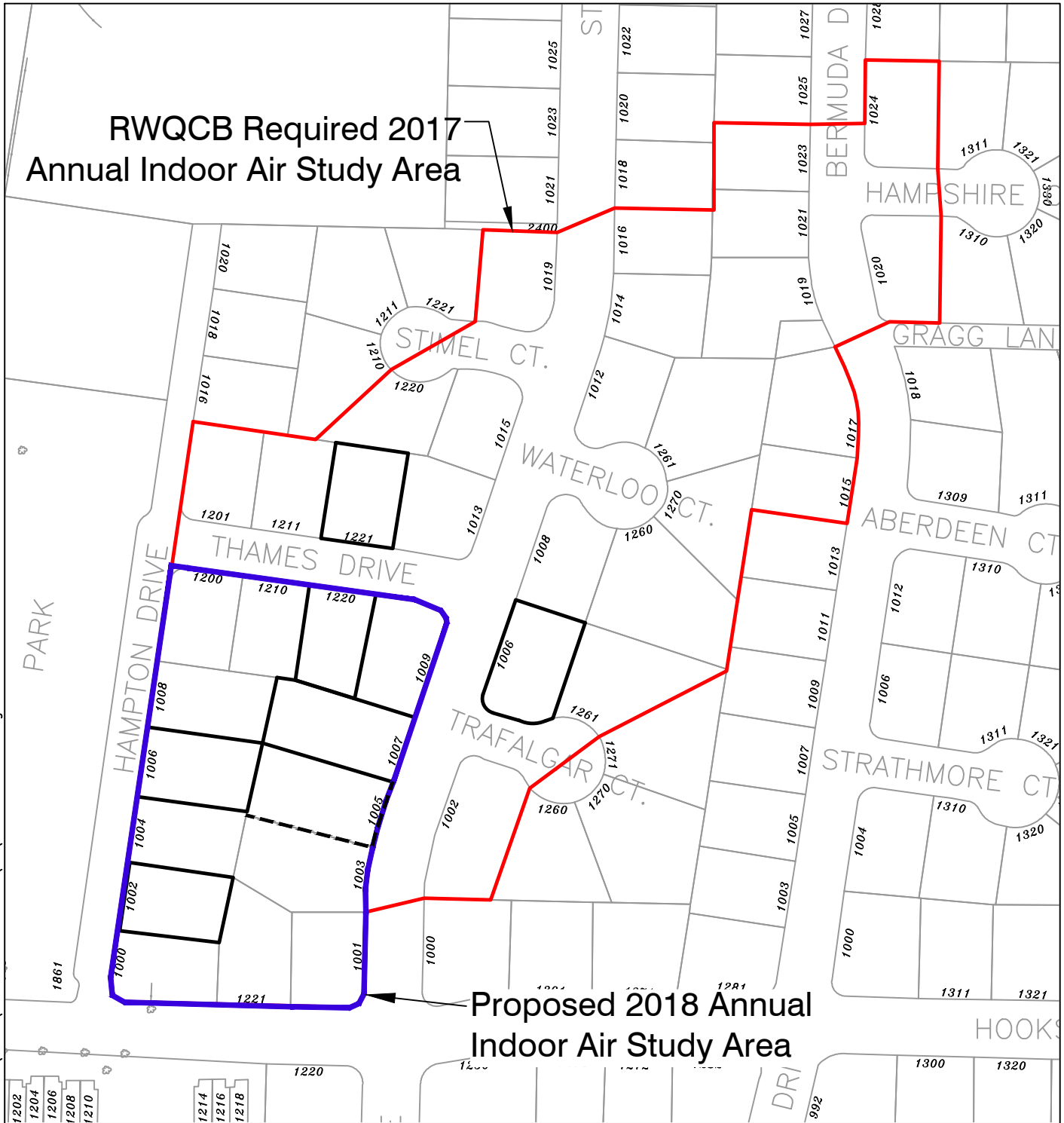
Proposed 2018 Annual Indoor Air Study Area

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

-  Hookston Station Property Boundary
-  VIP System was installed at the residence prior to the 2012 annual monitoring event
-  VIP System previously installed at this location, discontinued in 2015

Figure 16
Proposed Annual Indoor Air Study Area
Hookston Station
Pleasant Hill, California

Tables

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
A-Zone Monitoring Wells																			
MW-01	4/25/1990	10-20	traditional	2	68	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	
MW-01	4/25/1990	10-20	traditional	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-01	5/17/1990	10-20	traditional	< 5	62	NS	NS	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	NS	
MW-01	3/13/1991	10-20	traditional	25	68	NS	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	
MW-01	1/21/1992	10-20	traditional	34	83	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	
MW-01	4/2/1993	10-20	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-01	4/2/1993	10-20	traditional	90	73	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	
MW-01	11/17/1995	10-20	traditional	1400	130	< 50	< 50	< 50	< 200	< 50	< 50	< 50	< 50	NS	NS	NS	NS	NS	
MW-01	6/29/2000	10-20	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-01	6/29/2000	10-20	traditional	680	98	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	
MW-01	3/12/2001	10-20	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-01	3/12/2001	10-20	traditional	570	44	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	NS	NS	NS	NS	NS	
MW-01 Field Duplicate	3/12/2001	10-20	traditional	180	37	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	
MW-01	6/27/2001	10-20	traditional	670	46	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	NS	< 2.5	
MW-01	9/20/2001	10-20	traditional	630	53	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	
MW-01	9/20/2001	17-18.2	passive	240	26	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	4.3	3.1	< 0.8	NS	< 0.8	
MW-01	12/19/2001	17-18.2	passive	320	38	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NS	< 1.3
MW-01	3/20/2002	17-18.2	passive	470	180	1.7	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NS	< 1.3
MW-01	6/21/2002	17-18.2	passive	98	390	240	51	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	9/24/2002	17-18.2	passive	32	160	360	79	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	11/14/2002	17-18.2	passive	17	140	350	79	< 10	UJ	< 10	UJ	< 10	UJ	< 10	UJ	< 10	UJ	< 10	UJ
MW-01	2/19/2003	17-18.2	passive	250	210	200	7.6	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	5/6/2003	17-18.2	passive	95	210	250	8.8	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	7/22/2003	17-18.2	passive	130	150	490	18	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
MW-01	10/24/2003	17-18.2	passive	< 20	90	440	13	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
MW-01	3/10/2004	17-18.2	passive	466	83.7	58.4	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	
MW-01	4/20/2004	10-20	traditional	740	60	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
MW-01	9/15/2004	10-20	traditional	840	150	65	10	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
MW-01	1/12/2005	16.5-17.7	passive	460	180	140	6.4	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01 (DIFF)	2/15/2005	16.2-17.4	passive	150	39	26	0.87	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	6/8/2005	16.2-17.4	passive	< 5	110	160	5.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	9/14/2005	16.1-17.3	passive	< 10	< 10	311	10.9	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	11/15/2005	16.2-17.4	passive	< 10	4.9	260	8.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	1/26/2006	16.3-17.5	passive	140	99	310	7.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	2/28/2006	10-20	traditional	740	58	38	1.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-01	4/4/2006	17.5-18.8	passive	210	54	240	3.8	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
MW-01	7/7/2006	17.2-18.4	passive	7.9	28	250	3.1	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	10/17/2006	10-20	traditional	610	51	11	1.2	< 0.5	UJ	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	U	< 0.5	
MW-01	2/16/2007	10-20	traditional	920	74	11	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	7/18/2007	10-20	traditional	700	57	13	1.8	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	1/29/2008	10-20	traditional	770	76	63	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	8/7/2008	10-20	traditional	660	58	29	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	1/21/2009	10-20	traditional	753	64.5	12.7	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	
MW-01	7/23/2009	10-20	traditional	465	46.2	24.7	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
MW-01	1/27/2010	10-20	traditional	389	32	3.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	7/21/2010	10-20	traditional	390	28	24	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 100	< 20	< 60	< 20	
MW-01	2/1/2011	10-20	traditional	530	34	18	0.59	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-01	7/26/2011	10-20	traditional	360	23	22	0.42	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-01	1/25/2012	10-20	traditional	360	31	4.2	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	
MW-01	7/24/2012	10-20	traditional	440	32	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-01	1/30/2013	10-20	traditional	490	32	3.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	
MW-01	7/23/2013	10-20	traditional	370	24	3.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-01	1/22/2014	10-20	traditional	380	21	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-01	1/15/2015	10-20	traditional	420	36	17	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-01	1/27/2016	10-20	traditional	392	32.8	6.8	0.26	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-01	3/1/2017	10-20	traditional	192	22.8	4.12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-02	4/25/1990	11-																	

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-03	11/17/1995	10-20	traditional	< 100	3500	< 100	< 100	< 100	< 400	< 100	< 100	< 100	< 100	NS	NS	NS	NS	NS
MW-03	6/29/2000	10-20	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-03	6/29/2000	10-20	traditional	12	1400	99	< 4.2	36	< 4.2	< 4.2	8.8	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2
MW-03	3/13/2001	10-20	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	NS	NS
MW-03	3/13/2001	10-20	traditional	< 8.3	2000	63	< 8.3	39	< 8.3	< 8.3	8.8	< 8.3	< 8.3	NS	NS	NS	NS	NS
MW-03	6/27/2001	10-20	traditional	8.8	2000	73	< 8.3	43	< 8.3	< 8.3	10	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	NS	< 8.3
MW-03	9/20/2001	10-20	traditional	4.9	1400	49	< 4.2	24	< 4.2	< 4.2	6	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	NS	< 4.2
MW-03	9/20/2001	17-18.2	passive	6.4	1400	51	5.7	15	< 5	< 5	6.4	< 5	< 5	< 5	< 5	< 5	NS	< 5
MW-03	12/19/2001	17-18.2	passive	14	1200	39	5.4	9.7	< 4.2	< 4.2	5	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	NS	< 4.2
MW-03	3/20/2002	17-18.2	passive	7.2	2100	130	< 7.1	36	< 7.1	< 7.1	9.5	< 7.1	< 7.1	< 7.1	< 7.1	< 7.1	NS	< 7.1
MW-03	6/21/2002	17-18.2	passive	< 25	2100	160	< 25	53	< 25	< 25	12	< 25	< 25	< 25	< 25	< 25	< 25	< 25
MW-03	9/24/2002	17-18.2	passive	< 20	1200	50	3.8	30	< 20	< 20	6.1	< 20	< 20	< 20	< 20	< 20	< 20	< 20
MW-03	11/14/2002	17-18.2	passive	< 25	980	25	< 25	19	< 25	< 25	25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
MW-03	2/19/2003	17-18.2	passive	< 25	1700	140	5.4	46	< 25	< 25	9.5	< 25	< 25	< 25	< 25	< 25	< 25	< 25
MW-03	3/10/2004	17-18.2	passive	< 100	2180	202	< 100	52.1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS	< 100
MW-03	4/20/2004	10-20	traditional	< 50	1800	180	9.2	20	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-03	9/14/2004	10-20	traditional	< 50	1200	71	< 50	31	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-03 Field Duplicate	9/14/2004	10-20	traditional	< 50	1200	72	< 50	23	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-03	12/16/2004	15.5-16.7	passive	< 50	970	49	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-03 (DIFF)	2/15/2005	15.3-16.5	passive	< 10	250	18	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-03	6/7/2005	16.6-17.8	passive	< 50	1100	100	< 50	29	< 50	< 50	< 50	< 50	< 50	< 50	13	< 50	< 50	< 100
MW-03	9/14/2005	16.7-17.9	passive	< 50	1730	124	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50
MW-03	11/17/2005	16.7-17.9	passive	< 100	1900	91	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
MW-03	1/27/2006	16.7-17.9	passive	< 20	1300	87	7.8	24	< 20	< 20	5.6	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-03 Field Duplicate	1/27/2006	16.7-17.9	passive	< 20	1200	85	< 20	24	< 20	< 20	4.1	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-03	2/28/2006	10-20	traditional	4.5	950	53	2.4	13	1.2	0.88	3.2	1	< 1	< 1	< 1	< 1	< 1	< 2
MW-03	4/4/2006	16.8-18.1	passive	< 20	480	24	< 20	7.6	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-03	7/10/2006	17.8-19.0	passive	< 20	350	21	< 20	7.9	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-03	10/18/2006	16.8-18.1	passive	< 5	330	16	< 5	5.1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-03	2/15/2007	16.7-18	passive	2.6	420	25	< 2.5	10	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5
MW-03	7/17/2007	16.7-18	passive	< 10	690	42	2.1	17	< 10	< 10	3.3	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-03	1/29/2008	16.7-17.9	passive	< 5	660	34	< 5	12	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
MW-03	8/6/2008	16.8-18	passive	< 5	670	35	< 5	14	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
MW-03	1/19/2009	17.2-18.4	passive	< 10	627	25.2	< 10	10.4	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-03	7/23/2009	17.2-18.4	passive	3.7	559	23.1	< 10	9.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-03	1/27/2010	17.2-18.4	passive	< 6.7	349	10.7	< 6.7	3.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7
MW-03	7/20/2010	16.9-18.1	passive	3.2	550	30	1.7	12	< 0.5	0.39	1.9	0.52	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	2/1/2011	16.88-18.08	passive	1.8	280	14	0.8	4	< 0.5	< 0.5	0.85	0.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	7/26/2011	16.70-17.90	passive	2.2	410	24	1	11	< 0.5	< 0.5	1.5	0.33	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	1/25/2012	16.65-17.85	passive	2.4	370	20	< 2.5	5.8	< 2.5	< 2.5	1.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-03	7/24/2012	17.18-18.38	passive	2.7	450	20	0.71	6	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	1/30/2013	16.85-18.05	passive	2.6	400	31	< 2.5	4.7	< 2.5	< 2.5	0.98	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-03	7/23/2013	16.95-18.15	passive	2.4	320	15	0.7	4.9	< 0.5	< 0.5	0.89	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	1/22/2014	17-18.2	passive	1.7	210	7.6	0.35	2.6	< 0.5	< 0.5	0.41	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	1/15/2015	17.19-18.39	passive	1.4	250	9.6	0.45	3.2	< 0.5	< 0.5	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	1/27/2016	16.82-18.02	passive	1.6	167	7.4	0.3	1.84	< 0.5	< 0.5	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03	3/8/2017	17.00-18.47	passive	1.8	131	7.83	0.178	1.28	0.275	< 0.5	0.248	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5
MW-04	4/25/1990	11-21	traditional	62	240	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS
MW-04	5/17/1990	11-21	traditional	84	250	NS	NS	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	NS
MW-04	1/21/1992	11-21	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	410	340	5	620	NS
MW-04	1/21/1992	11-21	traditional	75	200	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	500	590	33	910	NS
MW-04	11/17/1995	11-21	traditional	6.4	26	61	1.3	< 2	< 8	< 2	3.2	< 2	< 2	NS	NS	NS	NS	NS
MW-04	6/29/2000	11-21	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2.5	< 2.5	NS	130	5.9
MW-04	6/29/2000	11-21	traditional	40	26	11	3.4	< 0.5	13	< 0.5	1.5	< 0.5	< 0.5	0.8	0.7	150	9.5	< 0.5
MW-04	3/12/2001	11-21	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	NS	NS
MW-04	3/12/2001	11-21	traditional	58	30	11	3.9	< 0.5	6.8	< 0.5	1.2	< 0.5	< 0.5	NS	NS	NS	NS	NS
MW-04 Field Duplicate	3/12/2001	11-21	traditional	18	21	9.1	3.5	&										

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-04	10/24/2003	17-18.2	passive	11	55	13	5.3	< 1	13	< 1	0.37 J	< 1	< 1	0.24 J	< 1	0.48 J	< 1	< 2
MW-04	3/10/2004	17-18.2	passive	1.93 N	27.5	13.7	6.06	< 1	27.4	< 1	0.731 J	< 1	< 1	< 1	< 1	5.17	NS	< 1
MW-04	4/21/2004	11-21	traditional	53	23	11	6.7 J	< 10	17	< 10	< 10	< 10	< 10	< 10	< 10	93	< 10	< 20
MW-04 Field Duplicate	4/21/2004	11-21	traditional	66	26	11	7.3 J	< 10	18	< 10	< 10	< 10	< 10	< 10	< 10	100	< 10	< 20
MW-04	9/15/2004	11-21	traditional	70	27	13	7.7	< 2	15	< 2	< 2	< 2	< 2	< 2	< 2	48	< 2	< 4
MW-04	12/17/2004	11-21	traditional	220	59	30	15	< 5	14	< 5	< 5	< 5	< 5	< 5	< 5	11	< 5	< 10
MW-04 (DIFF)	12/17/2004	17-18.2	passive	10	< 1	15	6.1	< 1	15	< 1	0.37 J	< 1	< 1	0.36 J	< 1	11	< 1	< 2
MW-04 (DIFF)	2/16/2005	16.7-17.9	passive	69	35	10	5.9	< 2	4.1	< 2	< 2	< 2	< 2	< 2	< 2	0.82 J	< 2	< 4
MW-04 (DIFF) Field Duplicate	2/16/2005	16.7-17.9	passive	69	33	10	6	< 2	4.6	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4
MW-04	6/7/2005	17.9-19.1	passive	52	32	42	5.1	< 1	4.2	< 1	< 1	< 1	< 1	< 1	0.28 J	< 1	< 1	< 2
MW-04 Field Duplicate	6/7/2005	17.9-19.1	passive	54	33	44	5.3	< 1	4.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-04	9/14/2005	17.9-19.1	passive	12.1	27.9	68	6.02	< 1	14.7	< 1	< 1	< 1	< 1	< 1	< 1	2.4	< 2	< 1
MW-04	11/15/2005	17.8-19	passive	53	26	35	4.7	< 1	12	< 1	0.13 J	< 1	< 1	0.18 J	< 1	0.65 J	< 1	< 2
MW-04	1/26/2006	18.1-19.3	passive	52	12	68	4.9	< 1	14	< 1	0.2 J	< 1	< 1	0.2 J	< 1	1.2	< 1	< 2
MW-04	2/28/2006	11-21	traditional	150	28 B	19	5	< 5	6.5	< 5	< 5	< 5	< 5	< 5	< 5	2.1 J	< 5	< 10
MW-04	4/4/2006	17.9-19.2	passive	15	4.7	30	1.2	< 1	2.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-04	7/7/2006	17.8-19.0	passive	32	9.4	59	2.2	< 1	6.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-04	10/17/2006	17.6-18.9	passive	16	4.7	51	1.3	< 0.5	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-04	2/14/2007	17.6-18.9	passive	45	11	27	0.99	< 0.5	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1 B, U	< 0.5	< 1
MW-04	7/17/2007	17.6-18.9	passive	74	16	19	0.88 J	< 1	4.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-04	1/29/2008	17.7-18.9	passive	84	11	17	< 1	< 1	5.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-04	8/6/2008	17.6-18.8	passive	89	16	23	0.68	< 0.5	5.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1
MW-04	1/19/2009	17.5-18.7	passive	84.6	11.5	20.8	< 2	< 2	3.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 2
MW-04	7/21/2009	17.5-18.7	passive	45.7	11.3	19.9	0.53 J	< 1	2.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-04	1/26/2010	17.5-18.7	passive	41.2	10	67	0.58 J	< 1.7	4.8	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 3.3	< 1.7
MW-04	7/22/2010	17.4-18.6	passive	8.8	2.1	42	< 0.5	< 0.5	3.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	2/2/2011	17.75-18.95	passive	14	3.4	75	0.72	< 0.5	3.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	7/26/2011	17.48-18.68	passive	2.3	1.6	17	0.64	< 0.5	5.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	1/24/2012	17.68-18.18.88	passive	2.5	1.8	24	0.89	< 0.5	6.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	7/23/2012	17.17-18.37	passive	33	7.4	23	1	< 0.5	2.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	1/29/2013	23.10-24.30	passive	9.4	2.4	15	0.52	< 0.5	4.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.31 J	< 1.5	< 0.5
MW-04	7/22/2013	17.77-18.97	passive	6.9	3.6	30	0.87	< 0.5	5.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	1/22/2014	17.95-19.15	passive	11	3.2	70	1.2	< 0.5	5.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	1/14/2015	17.95-19.15	passive	1.8	1.5	13	0.44 J	< 0.5	4.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	1/26/2016	17.76-18.96	passive	0.81	3	18.3	0.73	< 0.5	6.36	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-04	2/27/2017	18.00-19.2	passive	0.316 J	0.655	1.69	< 0.5	< 0.5	0.668	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	0.223 J
MW-05	3/13/1991	10-30	traditional	1.6	66	NS	NS	1.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS
MW-05	1/21/1992	10-30	traditional	< 1	46	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS
MW-05	3/31/1993	10-30	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-05	3/31/1993	10-30	traditional	< 5	< 5	< 5	< 5	< 5	110	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS
MW-05	11/17/1995	10-30	traditional	< 0.5	25	< 0.5	< 0.5	< 0.5	< 2	< 1	1.2	< 0.5	< 0.5	NS	NS	NS	NS	NS
MW-05	6/28/2000	10-30	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-05	6/28/2000	10-30	traditional	< 0.5	12	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-05	3/12/2001	10-30	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	NS	NS
MW-05	3/12/2001	10-30	traditional	< 0.5	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS
MW-05 Field Duplicate	3/12/2001	10-30	traditional	< 0.5	5.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS
MW-05	6/27/2001	10-30	traditional	< 0.5	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5
MW-05	9/20/2001	10-30	traditional	< 0.5	6.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5
MW-05	9/20/2001	23-24.2	passive	< 0.5	5.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5
MW-05	12/19/2001	23-24.2	passive	< 0.5	6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5
MW-05 Field Duplicate	12/19/2001	23-24.2	passive	< 0.5	16	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5
MW-05	3/20/2002	23-24.2	passive	0.7	5.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	< 0.5
MW-05	9/24/2002	23-24.2	passive	< 1	4.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-05 Field Duplicate	9/24/2002	23-24.2	passive	< 1	4.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-05	11/14/2002	23-24.2	passive	< 1	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-05	2/19/2003	23-24.2	passive	< 1	3.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-05	5/6/2003	23-24.																

Table 1
Volatile Organic Compounds Detected in Groundwater Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
MW-05 (DIFF)	2/15/2005	23-24.2	passive	< 1	2.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	6/7/2005	23.7-24.9	passive	< 1	2.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	9/13/2005	23.1-24.3	passive	< 1	3.45	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-05	11/15/2005	23-24.2	passive	< 1	3.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	1/25/2006	23.3-24.5	passive	< 1	3.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	4/3/2006	23.4-24.7	passive	< 1	2.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	7/7/2006	10-30	traditional	< 1	5.4	< 1	< 1	0.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05 Field Duplicate	7/7/2006	10-30	traditional	< 1	5.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	10/17/2006	23.0-24.2	passive	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	
MW-05	2/16/2007	23.0-24.2	passive	< 5	2.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.89	U	< 0.5	< 0.5	
MW-05 DUP	2/16/2007	23.0-24.2	passive	< 0.5	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.89	U	< 0.5	< 0.5	
MW-05	7/17/2007	23.0-24.2	passive	< 1	2.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	1/29/2008	23.2-24.4	passive	< 0.5	3.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	
MW-05	8/5/2008	22.9-24.1	passive	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	
MW-05	1/16/2009	22.8-24	passive	< 1	4.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-05	7/21/2009	22.8-24	passive	< 1	2.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-05	1/26/2010	22.8-24	passive	< 1	3.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-05	7/20/2010	22.9-24.1	passive	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	
MW-05	2/1/2011	23.13-24.33	passive	< 0.5	3.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	
MW-05	7/26/2011	22.72-23.92	passive	< 0.5	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-05	1/24/2012	22.88-24.08	passive	< 0.5	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-05	7/23/2012	23.12-24.32	passive	< 0.5	2.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-05	1/29/2013	22.88-24.08	passive	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-05	7/22/2013	23.14-24.34	passive	< 0.5	1.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-05	1/22/2014	23.25-24.45	passive	< 0.5	3.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-05	1/26/2016	22.76-23.96	passive	< 0.5	2.3	0.14	J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-06	3/13/1991	15-35	traditional	2.4	1.3	NS	NS	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	
MW-06	1/21/1992	15-35	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	
MW-06	4/1/1993	15-35	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 50	< 0.5	< 0.5	< 0.5	NS	
MW-06	4/1/1993	15-35	traditional	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	
MW-06	11/17/1995	15-35	traditional	1.9	0.92	< 0.5	< 0.5	< 0.5	< 2	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-06	6/28/2000	15-35	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-06	6/28/2000	15-35	traditional	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-06	3/13/2001	15-35	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-06	3/13/2001	15-35	traditional	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	NS	NS	NS	NS	
MW-06	6/27/2001	15-35	traditional	0.6	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-06	9/20/2001	15-35	traditional	1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-06	12/19/2001	21-22.2	passive	0.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS	
MW-06	3/20/2002	21-22.2	passive	0.7	1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-06	11/14/2002	21-22.2	passive	0.83	JJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ
MW-06	2/19/2003	21-22.2	passive	0.92	J	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ
MW-06	5/6/2003	25-26.2	passive	0.76	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	7/22/2003	25-26.2	passive	0.86	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	10/24/2003	25-26.2	passive	0.92	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	3/10/2004	21-22.2	passive	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	
MW-06	4/20/2004	15-35	traditional	0.79	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	9/14/2004	15-35	traditional	2.5	JJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	
MW-06	12/16/2004	22.2-23.4	passive	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06 (DIFF)	2/15/2005	21.9-23.1	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	6/7/2005	21.6-22.8	passive	0.85	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	9/13/2005	21.5-22.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	11/17/2005	21.5-22.7	passive	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06 Field Duplicate	11/17/2005	21.5-22.7	passive	0.99	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	1/25/2006	21.8-23	passive	0.87	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	4/4/2006	21.9-23.2	passive	0.65	J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	
MW-06	7/7/2006	15-35	traditional	< 1	&														

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-08A	10/17/2006	19.5-23	passive	2.7	770	66	3.4	20	3.3	0.97	3.6	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 1	2.5
MW-08A	2/15/2007	19.5-23	passive	< 5	500	36	< 5	11	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-08A	7/17/2007	19.6-23.1	passive	< 10	380	26	2.2 J	8.7 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-08A	1/29/2008	19.5-23	passive	< 2.5	220	8.4	< 2.5	3.3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5
MW-08A	8/6/2008	19.6-23.1	passive	< 2.5	160	8.3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5
MW-08A	1/19/2009	19.8-23.3	passive	0.69 J	156	7.8	< 2.5	2 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5
MW-08A	7/21/2009	19.8-23.3	passive	0.87 J	187	5.2	< 2.5	1.9 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5
MW-08A	1/26/2010	19.8-23.3	passive	0.98 J	89.6	1.6 J	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 2
MW-08A	7/20/2010	20-23.5	passive	0.48 J	75	5.6	0.51	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	2/2/2011	19.68-23.18	passive	0.66	110	2.9	< 0.5	0.88	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	7/26/2011	19.88-23.38	passive	0.62	84	7.4	0.48 J	2.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	1/24/2012	19.49-22.99	passive	0.52	93	9.8	0.36 J	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	7/24/2012	19.73-20.93	passive	0.52	69	4.3	0.34 J	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	1/30/2013	19.70-20.90	passive	0.45 J	60	4.2	< 0.5	0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	7/23/2013	19.63-20.83	passive	0.59	62	4.7	< 0.5	0.39 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	1/22/2014	19.56-20.76	passive	0.37	47	3.6	< 0.5	0.36 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	1/14/2015	19.60-20.80	passive	0.55	64	0.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	1/27/2016	19.36-22.86	passive	0.58	34.7	0.42 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-08A	2/28/2017	19.75-20.95	passive	0.344 J	41.2	3.6	0.247 J	0.694	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5
MW-11A	10/10/2003	10-25	traditional	< 1	3.15	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 1
MW-11A	3/10/2004	21-24.5	passive	< 1	4.33	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 1
MW-11A	4/27/2004	10-25	traditional	< 1	3.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	9/15/2004	10-25	traditional	< 1	3.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	12/17/2004	10-25	traditional	0.51 J	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	2/15/2005	10-25	traditional	< 1	3.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A (DIFF)	2/15/2005	16.7-20.2	passive	< 1	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	6/7/2005	18.7-22.2	passive	< 1	4.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	9/14/2005	18.6-22.1	passive	< 1	4.16	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-11A	11/16/2005	18.6-22.1	passive	< 1	3.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	1/25/2006	19-22.5	passive	0.39 J	5.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	4/4/2006	10-25	traditional	< 1	4.8	0.12 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A Field Duplicate	4/4/2006	10-25	traditional	0.44 J	4.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	7/7/2006	18.8-22.3	passive	< 1	5.8	0.11 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-11A	10/18/2006	10-25	traditional	0.52	5.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-11A	2/16/2007	10-25	traditional	< 0.5	3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.99 U	< 0.5	< 1	< 0.5
MW-11A	7/19/2007	10-25	traditional	< 1	2.4	0.19 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.57 J	< 2
MW-11A	1/28/2008	10-25	traditional	< 0.5	3.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.61	< 0.5	< 0.5	< 1
MW-11A	8/7/2008	10-25	traditional	< 0.5	4.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1
MW-11A	1/21/2009	10-25	traditional	0.23 J	3.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-11A	7/22/2009	10-25	traditional	< 1	2.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-11A	1/27/2010	10-25	traditional	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-11A	7/21/2010	10-25	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 3	< 1
MW-11A	2/1/2011	10-25	traditional	< 0.5	1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11A	1/24/2012	10-25	traditional	0.32 J	4.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11A	1/29/2013	10-25	traditional	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11A	1/22/2014	10-25	traditional	0.31 J	5.2	0.45 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11A	1/27/2016	10-25	traditional	0.25 J	3.6	0.28 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-12A	11/4/2003	20-23.5	passive	< 10	260	2.3 J	< 10	4.3 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-12A	3/11/2004	20-23.5	passive	< 10	469	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	< 10
MW-12A	4/27/2004	10-25	traditional	< 10	250	1.9 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-12A	9/15/2004	10-25	traditional	0.83 J	86	7.5	< 2	0.82 J	< 2	< 2	< 2	< 2	< 2	< 2	1.4 J	< 2	< 2	< 4
MW-12A	12/17/2004	10-25	traditional	< 10	530	13	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-12A	2/15/2005	10-25	traditional	< 10	330	17	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-12A	6/7/2005	18.5-22	passive	< 5	92	190	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1.3 J	< 5	< 5	< 10
MW-12A																		

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-15A	1/29/2008	17.6-18.8	passive	< 2.5	180	14	< 2.5	5.4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-15A	8/6/2008	17.6-18.8	passive	< 2	190	11	< 2	4.9	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	
MW-15A	1/19/2009	18.1-19.3	passive	1.1 J	258	11.7	< 5	6.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-15A	7/22/2009	18.1-19.3	traditional	< 5	413	13.9	< 5	15.1	4.8 J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-15A DUP	7/22/2009	28.7-29.9	traditional	< 10	615	16.5	< 10	25.1	12	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-15A	9/2/2009	14.5-24.5	passive/low-flow	< 10	560	36.4	< 10	24.6	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-15A	12/3/2009	14.5-24.5	passive/low-flow	< 10	441	41.8	< 10	20.5	5.5 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-15A	1/27/2010	18.1-19.3	passive	< 10	448	43.1	< 10	19.8	5.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-15A	2/24/2010	14.5-25.4	passive/low-flow	< 10	625	48.6	< 10	30	7.7	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-15A	4/26/2010	14.5-25.4	passive	0.85	120	40	0.97	44	21	< 0.5	3	0.99	0.47 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/22/2010	18.2-19.4	passive	< 10	510	86	< 5	28	20	< 5	2 J	< 5	< 5	< 5	< 5	< 5	< 15	J4J3	
MW-15A	10/22/2010	18.25-19.45	passive	< 1	12	130	1.1	5.9	13	< 1	0.82 J	< 1	< 1	0.71 J	0.31 J	< 1	< 3	< 1	
MW-15A	2/2/2011	18.20-18.4	passive	< 0.5	60	38	0.43	2.2	4.1	< 0.5	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	4/25/2011	18.08-19.28	passive	0.61	620	62	1.4	34	19	< 0.5	2.2	0.93	0.38 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A DUP	4/25/2011	18.08-19.28	passive	0.61	650	67	1.4	36	20	< 0.5	2.2	0.97	0.38 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/27/2011	17.72-18.92	passive	0.48 J	120	35	0.47 J	7.3	1.6	< 0.5	0.56	< 0.5	< 0.5	0.53	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	10/25/2011	18.34-19.54	passive	< 0.5	17	87	0.65	4.8	4.6	< 0.5	0.52	< 0.5	< 0.5	0.64	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A DUP	10/25/2011	18.34-19.54	passive	< 0.5	15	78	0.46 J	3.5	4.1	< 0.5	0.54	< 0.5	< 0.5	0.56	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	1/24/2012	17.91-19.11	passive	< 1	18	65	0.45 J	3.3	2.6	< 1	0.48 J	< 1	< 1	0.4 J	< 5	< 1	< 3	< 1	
MW-15A	4/30/2012	18.32-19.52	passive	< 0.5	77	38	< 0.5	4.6	1.5	< 0.5	0.47 J	< 0.5	< 0.5	0.4 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/25/2012	17.90-19.10	passive	< 0.5	96	35	0.52	5.3	2.2	< 0.5	0.64	< 0.5	< 0.5	0.44 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	10/31/2012	17.95-19.15	passive	< 0.5	21	140	0.99	7.9	0.56	< 0.5	0.75	< 0.5	< 0.5	0.46 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	1/30/2013	18.15-19.35	passive	< 0.5	58	18	< 0.5	1.4	0.58	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	4/25/2013	18.18-19.38	passive	< 0.5	16	88	0.71	4.3	1.8	< 0.5	0.48 J	< 0.5	< 0.5	0.38 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/23/2013	18.02-19.22	passive	< 0.5	32	100	0.89	5.6	1.1	< 0.5	0.62	< 0.5	< 0.5	0.44 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A DUP	7/23/2013	18.02-19.22	passive	< 5	37	99	< 5	6	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-15A	10/31/2013	18.25-19.45	passive	< 0.5	29	140	0.96	7.6	0.58	< 0.5	0.71	< 0.5	< 0.5	0.33 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A DUP	10/31/2013	18.25-19.45	passive	< 0.5	30	130	0.91	7.2	0.57	0.094	0.68	< 0.5	< 0.5	0.33 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	1/23/2014	18.27-19.47	passive	< 0.5	88	64	0.52	7.4	0.48 J	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A-dup	1/23/2014	18.27-19.47	passive	< 0.5	85	61	0.5 J	7.1	< 0.5	< 0.5	0.66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/29/2014	18.49-19.69	passive	< 0.5	5.1	100	2.5	3	11	< 0.5	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	1/14/2015	18.02-19.22	passive	< 0.5	96	12	< 0.5	3.8	< 0.5	< 0.5	0.32 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/28/2015	18.03-19.23	passive	< 0.5	18.8	100	0.899	8.21	2.7	< 0.5	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	1/27/2016	20.24-21.44	passive	0.21 J	32.5	147	0.78	10.8	6.15	< 0.5	0.8	0.19 J	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	7/26/2016	20.47 - 21.67	passive	< 0.5	109	104	0.971	10.6	6.24	< 0.5	0.746	0.221 J	< 0.5	0.163 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A	2/27/2017	20.25-21.45	passive	0.251 J	74.5	17.2	0.272 J	3.38	2.06	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-15A	7/13/2017	20.26-21.36	passive	0.397 J	36.7	41.1	0.499 J	17.9	3.12	< 0.5	0.971	0.296 J	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A2	9/14/2007	28-38	traditional	< 10	1400	< 10	< 10	82	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-15A2	10/1/2007	28-38	traditional	< 10	1500	< 10	< 10	83	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-15A2	1/29/2008	32.9-34.1	passive	< 10	1400	< 10	< 10	81	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-15A2	5/5/2008	28.22	passive	< 12	1400	< 12	< 12	80	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 25	< 25	
MW-15A2	5/5/2008	33	passive	< 12	1100	< 12	< 12	60	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 25	< 25	
MW-15A2	5/5/2008	35	passive	< 12	1400	< 12	< 12	79	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 25	< 25	
MW-15A2	8/6/2008	28-29.2	passive	< 5	520	14	< 5	22	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-15A2	8/6/2008	33-34.2	passive	< 5	580	14	< 5	24	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-15A2	8/6/2008	35-36.2	passive	< 12	840	16	< 12	38	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 25	
MW-15A2	1/19/2009	28.7-29.9	passive	< 13	599	11.6 J	< 13	32.1	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 25	< 13	
MW-15A2	7/23/2009	28.7-29.9	traditional	< 10	945	5.5 J	< 10	54.8	< 10	< 10	3.1 J	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-15A2	9/2/2009	28-38	passive/low-flow	< 20	1200	7.8 J	< 20	66.7	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15A2	12/3/2009	28-38	passive/low-flow	< 20	1040	7.3 J	< 20	59.4	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15A2	1/27/2010	28.7-29.9	passive	< 20	1190	6.7 J	< 20	64.5	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15A2	2/24/2010	28-38	passive/low-flow	< 20	877	12.7 J	< 20	60.2	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15A2	4/26/2010	28-38	passive	0.99	760	15	0.78	51	< 0.5	< 0.5	3.4	1.2	0.51	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15A2	7/22/2010	34.9-36.1	passive	2.3 J	1000	13	1.6 J	68	< 5	< 5	4 J	1.6							

Table 1
Volatile Organic Compounds Detected in Groundwater Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-17A	1/30/2013	23.28-24.48	passive	< 1	190	1.6	< 1	1.9	< 1	< 1	0.32	< 1	< 1	< 1	< 1	< 1	< 3	< 1
MW-17A	8/13/2013	23.60-24.80	passive	< 0.5	360	20	< 0.5	5.4	0.62	< 0.5	0.84	0.63	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-17A	1/23/2014	24.96-26.16	passive	< 0.5	290	21	0.32	6.7	3	< 0.5	0.96	0.74	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-17A	1/14/2015	25.45-26.65	passive	< 2.5	360	17	< 2.5	5.2	3.8	< 2.5	0.92	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
MW-17A	1/27/2016	25.07-26.27	passive	< 0.5	307	11.8	< 0.5	2.8	1.63	< 0.5	0.71	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-17A	2/28/2017	29.05-29.44	passive	< 0.5	264	7.64	0.182	3.86	0.64	< 0.5	0.645	0.546	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5
MW-18A	3/10/2004	20-21.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.901	< 1	NS	< 1
MW-18A	4/28/2004	14.7-24.7	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-18A	9/17/2004	14.7-24.7	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.6
MW-18A	12/15/2004	14.7-24.7	traditional	< 1	4.8	0.99	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	4.4
MW-18A	2/17/2005	14.7-24.7	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.8
MW-18A	6/7/2005	20.6-21.8	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-18A	9/14/2005	20.6-21.8	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	6.78
MW-18A	11/17/2005	20.7-21.9	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5.7
MW-18A	1/25/2006	20.7-21.9	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.2
MW-18A	4/5/2006	20.7-22.0	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-18A	7/6/2006	20.4-21.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-18A	10/16/2006	20.4-21.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-18A Field Duplicate	10/16/2006	20.4-21.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-18A	2/13/2007	20.3-21.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1	B, U	< 0.5	< 0.5
MW-18A	1/28/2008	20.2-21.4	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-18A DUP	1/28/2008	20.2-21.4	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-18A	1/14/2009	20.2-21.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-18A DUP	1/14/2009	20.2-21.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-18A	1/26/2010	20.2-21.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-18A	2/1/2011	19.90-21.10	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-18A	1/23/2012	19.58-20.78	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-18A dup	1/23/2012	19.58-20.78	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-18A	1/29/2013	20.00-21.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-18A dup	1/29/2013	20.00-21.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-18A	2/14/2014	21.00-21.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-18A	1/26/2016	22.38-23.58	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19A	3/10/2004	22-23.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 1
MW-19A	4/28/2004	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	9/17/2004	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	12/15/2004	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A Field Duplicate	12/15/2004	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	2/14/2005	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	6/8/2005	22-23.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	9/14/2005	22-23.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19A	11/16/2005	22-23.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	1/24/2006	22.2-23.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	4/5/2006	22.3-23.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	7/6/2006	22.0-23.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19A	10/16/2006	22-23.2	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-19A	2/13/2007	22-23.2	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-19A	1/28/2008	22-23.2	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-19A	1/14/2009	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19A DUP	1/14/2009	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19A	1/27/2010	14-24	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19A	2/1/2011	21.75-22.95	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19A	1/23/2012	21.62-22.82	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19A	1/30/2013	22.00-23.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19A	1/26/2016	21.88-23.08	passive	< 0.5	< 0.5	< 0.5												

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-22A	1/26/2006	21.5-22.7	passive	< 5	4.7	5.4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	3.7	< 5	< 5	< 5	220	
MW-22A Field Duplicate	1/26/2006	21.5-22.7	passive	< 5	4.3	4.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	3.5	< 5	< 5	< 5	200	
MW-22A	4/4/2006	21.5-22.8	passive	< 10	< 10	3.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	150	
MW-22A	7/7/2006	21.4-22.6	passive	< 5	< 5	2.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	150	
MW-22A	2/14/2007	21.1-22.4	passive	< 0.5	1.6	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.85	B, U	< 1	140	
MW-22A	7/17/2007	21.1-22.4	passive	< 5	2.0	2.0	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	120	
MW-22A	1/28/2008	21.1-22.3	passive	< 0.5	5	7.3	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	74	
MW-22A	8/5/2008	21-22.2	passive	< 0.5	3.5	7	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	61	
MW-22A	1/16/2009	21.2-22.4	passive	1.9	13.7	11	1.3	< 1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	7.6	
MW-22A	7/21/2009	21.2-22.4	passive	< 1	4.4	11.5	1.8	< 1	2.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	28.2	
MW-22A	1/26/2010	21.2-22.4	passive	11.2	19.7	10	0.92	< 1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.5	
MW-22A	7/20/2010	21.0-22.2	passive	1	5.4	12	1.7	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	37	
MW-22A	2/2/2011	21.11-22.31	passive	1.6	9.1	12	4.5	< 0.5	0.72	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	3.4	
MW-22A	7/26/2011	21.00-22.20	passive	< 0.5	2.1	6.6	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	14	
MW-22A	1/24/2012	20.88-22.08	passive	0.99	8.2	11	1.8	< 0.5	0.32	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	3.4	
MW-22A	7/24/2012	15-25	traditional	0.97	2.4	< 0.5	< 0.5	< 0.5	0.43	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	1.8	
MW-22A	1/29/2013	15-25	traditional	3.3	2	9.2	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	1.2	
MW-22A	7/22/2013	15-25	traditional	6.3	12	8.8	0.35	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	0.38	
MW-22A	1/22/2014	15-25	traditional	2.4	6.4	16	3.3	< 0.5	0.93	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-22A	1/26/2016	20.90-23.10	passive	9.8	10.5	12.7	0.59	< 0.5	0.37	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	6/4/2004	17-27	traditional	1.2	1.7	0.24	< 1	< 1	1	< 1	0.54	< 1	< 1	< 1	0.28	< 1	0.57	< 2	
MW-23A	9/15/2004	17-27	traditional	0.63	1.2	1	< 1	< 1	1	< 1	0.28	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	12/16/2004	17-27	traditional	0.67	1.4	0.21	< 1	< 1	1	< 1	0.42	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	2/14/2005	17-27	traditional	< 1	0.96	0.16	< 1	< 1	1	< 1	0.36	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	6/8/2005	24.4-25.6	passive	0.64	1.3	0.14	< 1	< 1	1	< 1	0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	9/14/2005	24.4-25.6	passive	< 1	1.49	< 1	< 1	< 1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-23A	11/17/2005	24.4-25.6	passive	1.1	1.7	0.22	< 1	< 1	1	< 1	0.53	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	1/25/2006	24.7-25.9	passive	1.2	1.5	0.25	< 1	< 1	1	< 1	0.47	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A Field Duplicate	1/25/2006	24.7-25.9	passive	1	1.6	0.2	< 1	< 1	1	< 1	0.5	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	4/3/2006	24.6-25.9	passive	0.88	1.5	0.21	< 1	< 1	1	< 1	0.41	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A Field Duplicate	4/3/2006	24.6-25.9	passive	0.89	1.5	0.25	< 1	< 1	1	< 1	0.41	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	7/7/2006	24.2-25.4	passive	0.84	1.6	0.28	< 1	< 1	1	< 1	0.46	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A Field Duplicate	7/7/2006	24.2-25.4	passive	0.82	1.6	0.2	< 1	< 1	1	< 1	0.49	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	10/17/2006	24.2-25.4	passive	0.93	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	
MW-23A	2/13/2007	24.2-25.5	passive	0.83	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.79	B, U	< 1	< 0.5	
MW-23A	7/17/2007	24.4-25.6	passive	0.84	1.2	0.23	< 1	< 1	1	< 1	0.49	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23A	1/28/2008	24.5-25.7	passive	0.65	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	
MW-23A	8/5/2008	24.4-25.6	passive	< 1	1.4	< 1	< 1	< 1	1	< 1	0.73	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-23A	1/16/2009	24.4-25.6	passive	0.75	1.5	0.35	< 1	< 1	1	< 1	0.88	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-23A	7/21/2009	24.4-25.6	passive	0.67	1.3	< 1	< 1	0.99	1	< 1	0.80	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-23A	1/26/2010	24.4-25.6	passive	0.8	1.6	< 1	< 1	2	1	< 1	1.1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-23A	7/20/2010	24.5-25.7	passive	0.83	1.3	0.38	< 0.5	2.4	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	2/1/2011	24.66-25.86	passive	0.76	1.5	< 0.5	< 0.5	1.9	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	7/26/2011	24.82-26.02	passive	0.58	1.2	< 0.5	< 0.5	2.2	< 0.5	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	1/24/2012	24.51-25.51	passive	0.63	1.1	< 0.5	< 0.5	1.7	< 0.5	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	7/24/2012	24.52-25.72	passive	0.93	1.4	< 0.5	< 0.5	2.2	< 0.5	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	1/29/2013	24.41-25.61	passive	0.7	2.6	< 0.5	< 0.5	1.8	< 0.5	0.47	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	7/23/2013	24.57-25.77	passive	0.64	1.2	< 0.5	< 0.5	2	< 0.5	0.46	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	1/22/2014	24.50-25.70	passive	0.7	1.1	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	1/13/2015	24.56-25.76	passive	0.83	1.2	< 0.5	< 0.5	1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	1/26/2016	24.20-25.40	passive	0.72	1.2	0.14	< 0.5	0.17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A DUP	1/26/2016	24.20-25.40	passive	0.644	1.06	0.153	< 0.5	0.797	< 0.5	< 0.5	0.179	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-23A	2/27/2017	24.7-25.9	passive	0.929	1.36	0.173	< 0.5	1.01	< 0.5	< 0.5	0.171	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-24A	3/15/2004	25-26.2	passive	< 2	127	< 2	< 2	6.8	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NS	< 2	
MW-24A	4/27/2004	19.5-29.5	traditional	< 2.5	57	0.36	< 2.5	2.7											

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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-24A	7/17/2007	25.2-26.4	passive	< 1	70	1.2	< 1	3.2	< 1	< 1	0.39 J	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-24A	1/28/2008	25.1-26.3	passive	< 0.5	64	0.62	< 0.5	2.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-24A	8/5/2008	25.2-26.4	passive	< 1	62.8	0.69 J	< 1	3.1	< 1	< 1	0.36 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-24A	1/16/2009	25.1-26.3	passive	< 1	80.4	0.84 J	< 1	3.8	< 1	< 1	0.43 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-24A	7/21/2009	25.1-26.3	passive	< 1	63.6	0.77 J	< 1	2.7	< 1	< 1	0.38 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-24A	1/26/2010	25.1-26.3	passive	< 2.5	87.5	0.88 J	< 2.5	4.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5
MW-24A	7/20/2010	24.8-26.0	passive	< 0.5	73	1.1	< 0.5	4.6	< 0.5	< 0.5	0.49 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3 < 0.5
MW-24A	2/1/2011	25.36-26.56	passive	< 0.5	86	1.1	< 0.5	2.6	< 0.5	< 0.5	0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	7/26/2011	25.05-26.25	passive	< 0.5	63	0.72	< 0.5	3.5	< 0.5	< 0.5	0.3 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A dup	7/26/2011	25.05-26.25	passive	< 0.5	61	0.65	< 0.5	3.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	1/24/2012	25.00-26.20	passive	< 0.5	70	1	< 0.5	2.8	< 0.5	< 0.5	0.35 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	7/23/2012	25.05-26.25	passive	< 0.5	84	1.2	< 0.5	3.6	< 0.5	< 0.5	0.37 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A dup	7/23/2012	25.05-26.25	passive	< 0.5	78	1	< 0.5	3.2	< 0.5	< 0.5	0.36	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	1/30/2013	25.02-26.22	passive	< 0.5	82	0.95	< 0.5	2.9	< 0.5	< 0.5	0.32 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	7/22/2013	25.00-26.20	passive	< 0.5	79	1.1	< 0.5	3.3	< 0.5	< 0.5	0.39 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	1/21/2014	24.71-25.91	passive	< 0.5	93	1.4	< 0.5	4.8	< 0.5	< 0.5	0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A-dup	1/21/2014	24.71-25.91	passive	< 0.5	90	1.2	< 0.5	3.3	< 0.5	< 0.5	0.37 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	1/14/2015	25.14-26.34	passive	< 0.5	110	1.4	< 0.5	4.7	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-24A	7/26/2016	24.95 - 26.15	passive	< 0.5	87.6	1.42	< 0.5	3.05	0.378 J	< 0.5	0.347 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	0.196 J
MW-24A dup	7/26/2016	24.95 - 26.15	passive	< 0.5	< 0.5	1.18	< 0.5	2.93	0.152 J	< 0.5	0.328 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	0.186 J
MW-24A	2/27/2017	25.25-26.45	passive	< 0.5	80.2	21	< 0.5	3.43	0.156 J	< 0.5	0.32 J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	0.497 J
MW-25A	6/9/2004	18-28	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.67 J	< 2
MW-25A	9/15/2004	18-28	traditional	< 1	UJ 0.33	JJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	UJ < 1	< 2
MW-25A	12/17/2004	18-28	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	2/14/2005	18-28	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	6/8/2005	23.3-24.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	9/14/2005	23.1-24.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A Field Duplicate	9/14/2005	23.1-24.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A	11/17/2005	22.7-23.9	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	1/25/2006	24.2-25.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A Field Duplicate	1/25/2006	24.2-25.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	4/5/2006	22.7-24.0	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	7/6/2006	22.6-23.8	passive	< 1	0.43 J	0.21 J	0.22 J	0.42 J	0.2 J	0.11 J	0.39 J	0.28 J	0.15 J	< 1	< 1	0.3 J	0.3 J	< 2
MW-25A	10/16/2006	22.7-24	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-25A	2/13/2007	22.5-23.8	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3 U	< 0.5	< 1	< 0.5
MW-25A	7/17/2007	23.1-24.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-25A	1/28/2008	23.3-24.5	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-25A	8/5/2008	23.2-24.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A	1/16/2009	23.3-24.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A DUP	1/16/2009	23.3-24.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A	7/21/2009	23.3-24.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A DUP	7/21/2009	23.3-24.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A	1/26/2010	23.3-24.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-25A	7/20/2010	23.0-24.2	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3 < 0.5
MW-25A	2/1/2011	24.43-25.63	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	7/26/2011	23.10-24.30	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	1/24/2012	23.22-24.42	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	7/23/2012	23.00-24.2	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	1/30/2013	23.00-24.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	7/22/2013	23.16-24.36	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	1/22/2014	23.16-24.36	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-25A	1/26/2016	26.91-28.11	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-27A PDB	2/15/2007	21-22.3	passive	< 0.5	H2, UJ 110	H2, J 12	H2, J 0.92											

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-27A	7/24/2012	20.68-21.88	passive	0.52	88	10	0.57	3.1	< 0.5	< 0.5	0.36 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-27A dup	7/24/2012	20.68-21.88	passive	0.55	91	10	0.63	3.1	< 0.5	< 0.5	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-27A	1/30/2013	20.87-22.07	passive	0.78	110	12	0.43 J	2.8	< 0.5	< 0.5	0.46 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-27A	7/22/2013	20.80-22.00	passive	0.87	230	16	0.96	5.4	< 0.5	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-27A	1/22/2014	20.70-21.90	passive	1.2	290	17	1	3.6	< 0.5	< 0.5	0.77	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-27A	7/29/2014	20.77-21.97	passive	< 5	280	20	< 5	6.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-27A	1/14/2015	20.94-22.14	passive	< 5	300	26	< 5	5.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-27A	7/28/2015	20.61-21.81	passive	< 5	332	20.2	< 5	7.33	< 5	< 5	1.14 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-27A	1/26/2016	20.60-21.80	passive	< 1.45	308	24.6	0.6	3.83	< 0.5	< 0.5	0.81	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-27A	7/26/2016	20.76 - 21.96	passive	1.51	251	13.1	0.384 J	2.62	< 0.5	< 0.5	0.522	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-27A	2/27/2017	21-22.2	passive	1.21	83.8	4.6	0.153 J	0.704	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-28A PURGE	2/15/2007	17-27	traditional	< 2.5	510	27	< 2.5	7.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-28A PDB	2/15/2007	22-23.3	passive	< 2.5	440	< 2.5	< 2.5	5.3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-28A	4/30/2007	23.3-24.6	passive	1.3	500	27	1	6.1	< 0.5	< 0.5	1.9	0.54	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-28ADUP	4/30/2007	23.3-24.6	passive	< 5	520	28	< 5	7.7	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
MW-28A	7/17/2007	23.4-24.6	passive	< 10	540	34	< 10	6.9 J	< 10	< 10	1.9 J	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-28A DUP	7/17/2007	23.4-24.6	passive	< 10	500	32	1.3 J	5.9 J	< 10	< 10	2.0 J	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-28A	10/3/2007	23.4-24.6	passive	< 2.5	530	31	< 2.5	5.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-28A DUP	10/3/2007	23.4-24.6	passive	< 2.5	490	30	< 2.5	5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-28A	1/28/2008	21.9-23.1	passive	< 5	480	34	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-28A	8/6/2008	21.9-23.1	passive	< 5	380	26	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	
MW-28A	1/19/2009	22.4-23.6	passive	< 6.7	387	23.2	< 6.7	4.3 J	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-28A	7/21/2009	22.4-23.6	passive	< 10	354	20	< 10	4.5 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-28A	1/26/2010	22.4-23.6	passive	< 6.7	350	17.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-28A DUP	1/26/2010	22.4-23.6	passive	< 6.7	348	19.7	< 6.7	3.2 J	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-28A	7/20/2010	21.9-23.1	passive	< 10	230	12	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 30	< 10	
MW-28A	2/2/2011	22.08-23.28	passive	1	280	14	0.46	2.6	< 0.5	< 0.5	0.76	0.33	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-28A	7/26/2011	22.12-23.32	passive	0.98	270	17	0.53	4.9	< 0.5	< 0.5	0.97	0.35 J	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-28A	1/25/2012	22.05-23.25	passive	1.8 J	460	32	< 2.5	4.6	< 2.5	< 2.5	1.2 JV3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-28A	7/24/2012	21.96-23.16	passive	0.82	190	13	< 0.5	1.9	< 0.5	< 0.5	0.52	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-28A	1/30/2013	21.91-23.11	passive	1.3	160	14	< 0.5	1.5	< 0.5	< 0.5	0.48 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-28A	7/24/2013	22.00-23.20	passive	0.92	240	16	0.35 J	1.6	< 0.5	< 0.5	0.63	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-28A	1/23/2014	21.90-23.10	passive	1.2	240	16	0.5	2.2	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-28A	1/14/2015	22.35-23.55	passive	1.1 J	210	10	< 2.5	1.6 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-28A	1/27/2016	21.93-23.13	passive	0.96	250	14.1	0.44 J	1.52 J	< 0.5	< 0.5	0.58	0.24 J	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.33	
MW-28A	2/28/2017	22.06-22.26	passive	1.36	208	14	0.293 J	1.58	< 0.5	< 0.5	0.409 J	0.208 J	< 0.5	< 0.5	< 1	< 0.5	< 1.5	0.191 J	
MW-29A	2/15/2007	24.5-25.8	passive	< 2.5	180	< 2.5	< 2.5	3.2	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-29A PURGE	2/15/2007	17-32	traditional	< 2.5	200	< 2.5	< 2.5	3.4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-29A PURGE DUP	2/15/2007	17-32	traditional	< 2.5	210	< 2.5	< 2.5	3.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-29A	4/30/2007	27.6-28.9	passive	< 0.5	170	0.85	< 0.5	2.3	< 0.5	< 0.5	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-29A	7/17/2007	27.9-29.1	passive	< 5	240	1.1 J	< 5	3.6 J	< 5	< 5	0.63 J	< 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-29A	10/3/2007	27.9-29.1	passive	< 2.5	280	< 2.5	< 2.5	4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-29A	1/29/2008	24.5-25.7	passive	< 2.5	320	< 2.5	< 2.5	4.4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-29A	8/6/2008	24.3-25.5	passive	< 2.5	270	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-29A DUP	8/6/2008	24.3-25.5	passive	< 2.5	250	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-29A	1/19/2009	24.9-26.1	passive	< 4	249	< 4	< 4	2.8 J	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-29A	7/21/2009	24.9-26.1	passive	< 4	189	1.3 J	< 4	2.0 J	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-29A	1/26/2010	24.9-26.1	passive	< 5	265	1.7 J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-29A	7/20/2010	24.4-25.6	passive	< 5	190	2.2 J	< 5	3.6 J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-29A	2/2/2011	24.59-25.79	passive	< 0.5	250	1.4	< 0.5	1.5	< 0.5	< 0.5	0.51	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-29A	7/27/2011	24.63-25.83	passive	< 0.5	180	1.3	0.5	2.9	< 0.5	< 0.5	0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-29A	1/25/2012	24.10-25.30	passive	< 0.5	230	1.2	< 0.5	2.8	< 0.5	< 0.5	0.42 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-29A	7/24/2012	24.44-25.64	passive	< 0.5	160	1.3	< 0.5	1.5	< 0.5	< 0.5	0.37 J	< 0.5	<						

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-31A2	7/25/2012	30.94-32.14	passive	0.71	160	14	0.62	4.3	< 0.5	< 0.5	0.66	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	10/31/2012	31.18-32.38	passive	1.1	200	13	0.62	5	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	1/30/2013	30.87-32.07	passive	1.1	200	14	0.55	4.4	< 0.5	0.54	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	4/25/2013	30.86-32.06	passive	0.89	190	16	0.65	5.1	< 0.5	< 0.5	0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	7/23/2013	31.20-32.40	passive	0.99	210	16	0.51	4.6	0.36	J	< 1	< 1	< 1	< 1	< 1	< 1	< 3	< 1
MW-31A2	10/31/2013	31.20-32.40	passive	1.2	280	23	0.62	4.8	0.41	J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	1/22/2014	30.82-32.02	passive	1.1	230	20	0.63	3.8	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	7/29/2014	31.12-32.32	passive	0.94	220	13	0.43	3.7	< 0.5	< 0.5	0.75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	1/14/2015	31.09-32.29	passive	1.8	330	16	< 2.5	5.5	< 2.5	< 2.5	0.88	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-31A2	7/28/2015	31.34-32.54	passive	1.36	325	14.7	< 2.5	5.83	< 2.5	< 2.5	0.696	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-31A2	1/26/2016	31.01-32.21	passive	< 1.4	282	11.8	0.45	3.37	< 0.5	< 0.5	0.61	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	7/26/2016	31.30 - 32.50	passive	1.54	293	20.5	0.638	3.79	0.662	< 0.5	0.792	0.201	J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2	2/28/2017	31.60-0	passive	1.92	270	13.7	0.468	3.39	0.284	J	< 0.5	0.491	J	< 0.5	< 1	< 0.5	< 1.5	< 0.5
MW-31A2	7/12/2017	31.38-32.48	passive	1.04	116	15.1	0.294	1.35	4.97	J	< 0.5	0.207	J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-31A2 (DUP)	7/12/2017	31.38-32.48	passive	0.986	113	13.4	0.280	1.25	4.61	J	< 0.5	0.207	J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	9/14/2007	14.5-29.5	traditional	< 5	350	26	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
MW-32A	10/2/2007	14.5-29.5	traditional	< 2.5	470	28	< 2.5	7.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5
MW-32A	1/29/2008	22.5-23.7	passive	< 5	460	24	< 5	6.5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-32A	5/2/2008	19.15	passive	< 2.5	340	18	< 2.5	6.8	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-32A DUP	5/2/2008	19.15	passive	< 2.5	340	17	< 2.5	6.4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-32A	5/2/2008	22	passive	< 2.5	400	18	< 2.5	3.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-32A	5/2/2008	26	passive	< 2.5	500	27	< 2.5	8.7	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-32A	8/6/2008	22-23.2	passive	< 2.5	420	21	< 2.5	8	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-32A	8/6/2008	26-27.2	passive	< 2.5	390	21	< 2.5	7.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-32A	1/19/2009	22-23.2	passive	< 10	492	24.4	< 10	8.8	J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-32A	7/22/2009	14.5-29.5	traditional	< 10	389	55.8	< 10	7.4	J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-32A	9/2/2009	14.5-29.5	passive/low-flow	< 10	454	66.7	< 10	8.7	J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-32A	10/5/2009	14.5-29.5	passive	< 10	404	64.8	< 10	7.8	J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-32A	11/4/2009	14.5-29.5	passive	1.1	218	89.3	< 5	2.4	J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-32A	12/4/2009	14.5-29.5	passive/low-flow	< 5	159	98.7	< 5	2.1	J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-32A	1/27/2010	22-23.2	passive	1	140	111	0.77	4.6	J	< 2	1.2	< 2	< 2	< 2	< 2	< 2	< 4	< 2
MW-32A	2/26/2010	14.5-29.5	passive/low-flow	< 2	160	105	1.1	5.6	J	< 2	1.3	< 2	< 2	< 2	< 2	< 2	< 4	< 2
MW-32A	3/29/2010	14.5-29.5	passive	0.74	180	72	0.63	11	J	< 0.5	1.3	0.32	J	< 0.5	0.48	J	< 0.5	< 1.5
MW-32A	4/26/2010	14.5-29.5	passive	0.76	240	58	0.61	19	J	< 0.5	1.5	0.48	J	< 0.5	0.39	J	< 0.5	< 1.5
MW-32A	7/22/2010	22.1-23.3	passive	< 5	69	76	1.6	2.8	J	< 5	1.3	< 5	< 5	< 5	< 5	< 5	< 15	J4J3
MW-32A	10/22/2010	22.05-23.25	passive	< 5	54	200	2.4	4.4	J	< 5	2.1	< 5	< 5	1.3	J	< 5	< 15	< 5
MW-32A	2/2/2011	22.20-23.40	passive	< 1	18	86	1.4	1	J	< 1	0.73	< 1	< 0.5	0.44	J	< 1	< 3	< 1
MW-32A DUP	2/2/2011	22.20-23.40	passive	< 0.5	18	78	1.3	0.97	J	< 0.5	0.7	< 0.5	< 0.5	0.41	J	< 0.5	< 1.5	< 0.5
MW-32A	4/25/2011	22.00-23.20	passive	0.51	560	55	1.4	35	J	< 0.5	1.9	0.74	J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	7/27/2011	21.95-23.15	passive	0.67	310	140	2.8	24	J	< 0.5	1.9	0.48	J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	10/25/2011	21.90-23.10	passive	< 0.5	22	110	1.5	2.2	J	< 0.5	0.7	< 0.5	< 0.5	0.36	J	< 0.5	< 1.5	< 0.5
MW-32A	1/23/2012	21.83-23.03	passive	< 1	18	110	1.4	1.8	J	< 1	0.68	< 1	< 1	0.36	J	< 5	< 1	< 3
MW-32A	4/30/2012	22.2-23.4	passive	< 0.5	150	160	2	15	J	< 0.5	1.5	< 0.5	< 0.5	0.37	J	< 0.5	< 1.5	< 0.5
MW-32A	7/25/2012	21.90-23.10	passive	0.36	110	86	1.3	3.6	J	< 0.5	0.87	< 0.5	< 0.5	0.32	J	< 0.5	< 1.5	< 0.5
MW-32A	10/31/2012	27.93-29.13	passive	0.5	110	40	0.72	1.4	J	< 0.5	0.57	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	1/30/2013	22.00-23.20	passive	0.55	130	72	0.94	3.6	J	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	4/25/2013	21.80-23.0	passive	0.34	100	100	1	3.5	J	< 0.5	0.77	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	7/24/2013	21.80-23.00	passive	0.52	120	34	0.85	1.1	J	< 0.5	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	10/31/2013	22.15-23.35	passive	0.46	100	44	0.86	1.2	J	< 0.5	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	1/23/2014	21.92-23.12	passive	0.5	96	32	0.82	1	J	< 0.5	0.48	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	7/29/2014	21.59-22.79	passive	0.46	85	18	0.59	0.69	J	< 0.5	0.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	1/14/2015	22.07-23.27	passive	0.52	87	15	0.52	0.51	J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	7/28/2015	22.08-23.28	passive	0.5	81.6	14.5	0.757	0.618	J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	1/27/2016	22.36-23.56	passive	0.43	92	15.4	0.8	1.17	J	< 0.5	0.27	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-32A	7/26/2016	22.50 - 23.70	passive	0.566	130	55.9	1.13	3.68	J	< 0.5	0.455	< 0.5	<					

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 Volatile Organic Compounds Detected in Groundwater Samples
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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-32A2	11/4/2009	29.5-39.5	passive	< 20	1330	115	< 20	109	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-32A2	12/4/2009	29.5-39.5	passive/low-flow	< 20	1430	101	< 20	135	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-32A2	1/27/2010	32.6-33.8	passive	< 20	1280	74.2	< 20	104	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-32A2	2/26/2010	29.5-39.5	passive/low-flow	< 20	975	483	< 20	122	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-32A2	3/29/2010	29.5-39.5	passive	0.34 J	980	120	1.8 J	99	3.3 J	< 0.5	4.3 J	1.8 J	0.7 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	4/26/2010	29.5-39.5	passive	0.36 J	940	90	1.4	80	2.4	< 0.5	3.8	1.6	0.58	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	7/22/2010	32.9-34.1	passive	< 10	1200	96	< 10	100	< 10	< 10	5.4 J	2.8 J	1.4 J	< 10	< 10	< 10	< 30	J4J3 < 10	
MW-32A2	10/22/2010	32.91-34.11	passive	< 10	1800	87	< 10	130	4.9 J	< 10	5.3 J	2.8 J	< 10	< 10	< 10	< 10	< 30	< 10	
MW-32A2	2/2/2011	32.94-34.14	passive	< 5	1100	68	< 5	78	3.6	< 5	3.9	1.6	0.66	< 5	< 5	< 5	< 15	< 5	
MW-32A2 DUP	2/2/2011	32.94-34.14	passive	0.4	1100	63	0.99	64	2.9	< 0.5	3.5	1.7	0.61	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	4/25/2011	33.50-34.70	passive	< 5	1000	100	< 5	68	< 5	< 5	2.9 J	1.3 J	0.61 J	< 5	< 5	< 5	< 15	< 5	
MW-32A2	7/27/2011	32.87-34.07	passive	0.48 J	1000	110	2	95	3.6	< 0.5	4.3	< 0.5	0.8	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5 J3	
MW-32A2	10/25/2011	32.23-33.43	passive	0.46 J	1100	78	1.1	91	4.6	< 0.5	3.5	1.2	0.64	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	1/23/2012	32.89-34.09	passive	0.54 J	1000	82	0.87 J	67	6.7	< 5	3.3	1.4	< 1	< 1	< 5	< 1	< 3	< 1	
MW-32A2	4/30/2012	33.2-34.4	passive	< 5	920	170	< 5	80	5.3	< 5	3.8 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	7/25/2012	32.97-34.17	passive	0.6	1100	110	1.4	68	7.3	< 0.5	3.4	1.2	0.64	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2 dup	7/25/2012	32.97-34.17	passive	0.45 J	1100	100	1.2	64	6.7	< 0.5	3.2	1.2	0.65	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	10/31/2012	33.2-33.4	passive	0.6	810	68	1.1	76	8.3	< 0.5	3.4	1.3	0.61	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2 dup	10/31/2012	33.2-33.4	passive	0.47 J	980	55	0.92	54	6.5	< 0.5	2.8	1.2	0.55	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	1/30/2013	32.90-34.10	passive	< 5	1100	39	< 5	64	7.5	< 5	3.2 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	4/25/2013	32.60-33.80	passive	< 5	620	400	2.5 J	71	6.3	< 5	3.2 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	7/24/2013	32.82-34.02	passive	< 2.5	860	190	1.1 J	62	7.5	< 2.5	3.4	1.2 J	0.54 J	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-32A2	10/31/2013	33.00-34.20	passive	< 2.5	960	180	1.3 J	86	11	< 2.5	3.9	1.4	0.72 J	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-32A2	1/23/2014	32.68-33.88	passive	0.56	990	93	1.1	70	7.4	< 0.5	3.4	1.2	0.58	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-32A2	7/29/2014	32.79-32.99	passive	< 5	810	200	1.5 J	63	8.6	< 5	3.6	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	1/14/2015	33.00-31.20	passive	< 5	980	99	< 5	74	6.3	< 5	3.4 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	7/29/2015	32.55-33.75	passive	< 5	952	65.9	< 5	103	6.54	< 5	3.75 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	1/27/2016	32.87-34.07	passive	< 5	768	192	1.73	72.1	5	< 5	3.71 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-32A2	7/26/2016	33.20 - 34.40	passive	0.758	893	92.8	1.05	57.7	4.96	< 5	3.1	1.21	0.551	0.157 J	< 5	< 5	< 15	< 5	
MW-32A2	2/27/2017	32.87-34.07	passive	< 5	704	118	< 5	45.3	2.66	< 5	2.08 J	< 5	< 5	< 5	< 10	< 5	< 15	< 5	
MW-32A2	7/12/2017	32.96-34.06	passive	0.725	729	98.0	1.12	64.9	2.13	< 0.5	2.86	1.26	0.436 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-33A	9/13/2007	15-30	low-flow	7	260	14	< 2.5	4.7	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-33A	10/2/2007	15-30	traditional	< 2.5	300	13	< 2.5	4.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-33A	1/29/2008	22.2-23.4	passive	< 5	380	14	< 5	11	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-33A	5/5/2008	16.32	passive	< 2.5	390	14	< 2.5	13	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-33A	5/5/2008	22	passive	< 2.5	350	12	< 2.5	12	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-33A	5/5/2008	26	passive	< 2.5	270	9.1	< 2.5	9.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-33A DUP	5/5/2008	26	passive	< 2.5	360	12	< 2.5	12	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-33A (22')	8/6/2008	22-23.2	passive	< 2.5	270	15	< 2.5	6.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-33A (26')	8/6/2008	26-27.2	passive	< 2.5	290	12	< 2.5	6.8	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-33A	1/19/2009	22-23.2	passive	1.4 J	462	20.6	< 6.7	9.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-33A	7/22/2009	15-30	traditional	< 10	313	22	< 10	5.6 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-33A	9/1/2009	15-30	passive/low-flow	< 10	416	42	< 10	11.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-33A	12/4/2009	15-30	passive/low-flow	< 10	436	45.5	< 10	10.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-33A	1/27/2010	22-23.2	passive	< 5	358	31.5	< 5	8.3	< 5	< 5	1.6 J	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-33A	2/26/2010	15-30	passive/low-flow	< 5	371	30.8	< 5	8.9	< 5	< 5	1.7 J	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-33A	4/26/2010	15-30	passive	1.4	280	21	0.89	7.5	< 0.5	< 0.5	1.4	0.38 J	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-33A	7/22/2010	22-23.2	passive	< 5	300	20	2.2 J	8.4	< 5	< 5	1.6 J	< 5	< 5	< 5	< 5	< 5	< 15	J4J3 < 5	
MW-33A	10/22/2010	22.05-23.25	passive	1.6 J	330	18	< 2.5	7.4	< 2.5	< 2.5	1 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-33A	2/1/2011	22.36-23.56	passive	1.3	280	17	< 2.5	6.2	< 2.5	< 2.5	1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-33A	4/25/2011	22.07-23.27	passive	1.2 J	300	15	< 2.5	7.3	< 2.5	< 2.5	1.1 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-33A	7/27/2011	21.80-23.00	passive	0.91	230	18	0.96	7	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5 J3	
MW-33A	10/25/2011	21.16-22.36	passive	1	120	18	0.63	2.7	< 0.5	< 0.5	0.76	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-33A	1/23/2012	22.08-23.28	passive	1.2	190	13	0.45 J	4.4	< 1	< 1	0.68 J	< 1	< 1	< 1	< 1	< 1	< 3	< 1	
MW-33A	4/30/2012	22.2-23.4	passive	0.															

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-33A2	1/29/2008	35-36.2	passive	< 5	340	13	< 5	17	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
MW-33A2	5/5/2008	33.12	passive	< 5	730	6.3	< 5	49	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10
MW-33A2	5/5/2008	35	passive	< 5	410	< 5	< 5	39	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10
MW-33A2	5/5/2008	37	passive	< 2.5	510	4.7	< 2.5	47	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-33A2 (33')	8/6/2008	33-34.2	passive	< 2.5	300	14	< 2.5	7.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-33A2 (35')	8/6/2008	35-36.2	passive	< 2.5	280	13	< 2.5	7.3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-33A2 (37')	8/6/2008	37-38.2	passive	< 2.5	300	12	< 2.5	6.9	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-33A2	1/19/2009	33.1-34.3	passive	1.4	455	20.1	< 6.7	9.5	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7
MW-33A2	7/22/2009	30-40	traditional	< 5	265	18.1	< 6.7	7.6	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7
MW-33A2	9/1/2009	30-40	passive/low-flow	< 10	429	31.3	< 10	11	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-33A2	12/4/2009	30-40	passive/low-flow	< 10	420	33.5	< 10	10.7	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-33A2	1/27/2010	33.1-34.3	passive	1.7	406	28.8	< 5	10.1	< 5	< 5	1.9	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-33A2	2/26/2010	30-40	passive/low-flow	< 5	488	35.9	1.6	13.2	< 5	< 5	2.3	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-33A2	4/26/2010	30-40	passive	1.7	350	24	0.96	9.8	0.54	< 0.5	1.8	0.39	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	7/22/2010	32.9-34.1	passive	1	360	14	0.47	7.8	0.38	< 0.5	0.94	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	10/22/2010	32.78-33.98	passive	1.7	380	20	1	8.9	< 2.5	< 2.5	1.2	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	2/1/2011	33.25-34.45	passive	1.5	340	19	< 2.5	7.8	< 2.5	< 2.5	1.3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	4/25/2011	33.45-34.65	passive	1.4	340	17	< 2.5	8.4	< 2.5	< 2.5	1.1	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	7/27/2011	32.92-34.12	passive	1.1	290	22	1.1	9.2	0.45	< 0.5	1.4	0.33	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	10/25/2011	32.60-33.80	passive	1.1	140	18	0.58	3.1	0.31	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	1/23/2012	32.83-34.03	passive	2	250	15	0.54	5.1	< 1	< 1	0.77	< 1	< 1	< 1	< 1	< 1	< 3	< 1
MW-33A2 DUP	1/23/2012	32.83-34.03	passive	1.1	240	15	0.66	5	0.33	< 1	0.83	< 1	< 1	< 1	< 1	< 1	< 3	< 1
MW-33A2	4/30/2012	33.3-34.5	passive	1.1	240	16	0.72	6.4	0.33	< 0.5	0.97	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	7/25/2012	32.96-34.16	passive	1.3	240	15	0.6	5.9	< 0.5	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	10/31/2012	33.03-34.23	passive	1.3	260	14	0.58	5.2	< 0.5	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	1/24/2013	33.25-34.45	passive	1.6	250	14	< 2.5	4.5	< 2.5	< 2.5	0.76	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	4/25/2013	32.66-33.86	passive	1.1	240	16	< 2.5	5.4	< 2.5	< 2.5	0.95	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	7/24/2013	32.82-34.02	passive	1.2	270	21	0.63	4.9	0.35	< 1	0.98	< 1	< 1	< 1	< 1	< 1	< 3	< 1
MW-33A2	10/31/2013	33.00-31.20	passive	1.3	280	22	0.67	5.2	0.37	< 1	0.92	< 1	< 1	< 1	< 1	< 1	< 3	< 1
MW-33A2	1/22/2014	32.60-33.80	passive	1.1	220	20	0.51	3.6	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	7/29/2014	32.8-34.00	passive	1.1	210	15	< 2.5	3.2	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	1/14/2015	33.01-34.21	passive	1.7	290	17	< 2.5	4.8	< 2.5	< 2.5	0.86	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	7/28/2015	33.00-34.00	passive	1.65	300	32.2	< 2.5	5.01	1.54	< 2.5	0.849	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5
MW-33A2	1/26/2016	33.10-34.30	passive	1.55	29.3	18.1	0.53	4	0.21	< 0.5	0.71	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	7/26/2016	33.00 - 34.20	passive	1.44	244	16.2	0.436	2.73	0.66	< 0.5	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-33A2	2/28/2017	33.40-34.60	passive	< 5	229	26.3	< 5	3.45	1.36	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 15	< 5
MW-33A2	7/14/2017	33.10-34.20	passive	1.08	148	15.8	0.244	1.54	7.25	< 0.5	0.214	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-35A2	2/15/2008	38-48	low-flow	< 62	6200	88	< 62	340	< 62	< 62	< 62	< 62	< 62	< 62	< 62	< 62	< 62	< 120
MW-35A2	4/23/2008	38-48	low-flow	< 50	3300	52	< 50	150	< 50	< 50	76	< 50	< 50	< 50	< 50	< 50	< 100	< 100
MW-35A2	6/10/2008	38-48	low-flow	< 25	3500	51	< 25	160	< 25	< 25	55	< 25	< 25	< 25	< 25	< 25	< 50	< 50
MW-35A2	8/6/2008	38-48	low-flow	< 25	4600	660	< 25	210	< 25	< 25	37	< 25	< 25	< 25	< 25	< 25	< 50	< 50
MW-35A2	10/16/2008	38-48	low-flow	< 100	7380	104	< 100	368	< 100	< 100	55.9	< 100	< 100	< 100	< 100	< 100	< 200	< 100
MW-35A2	12/9/2008	38-48	low-flow	< 10	< 10	< 10	< 10	< 10	< 10	< 10	51.6	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-35A2	2/12/2009	38-48	low-flow	< 20	1240	22.5	< 20	37.4	< 20	< 20	49.6	6.9	< 20	< 20	< 20	< 20	< 40	< 20
MW-35A2 DUP	2/12/2009	38-48	low-flow	< 20	1230	20.7	< 20	36.4	< 20	< 20	48.9	6.1	< 20	< 20	< 20	< 20	< 40	< 20
MW-35A2*	3/26/2009	38-48	low-flow	< 50	3520	52.6	< 50	132	< 50	< 50	49.9	< 50	< 50	< 50	< 50	< 50	< 100	< 50
MW-35A2	7/29/2009	38-48	low-flow	< 50	4750	163	< 50	232	< 50	< 50	45.7	< 50	< 50	< 50	< 50	< 50	< 100	< 50
MW-35A2	10/13/2009	38-48	low-flow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-35A2	1/27/2010	38-48	low-flow	< 50	678	2470	< 50	163	56.8	< 50	36	< 50	< 50	< 50	< 50	< 50	< 100	< 50
MW-35A2	3/30/2010	38-48	low-flow	< 100	2400	420	< 100	160	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 300	< 100
MW-35A2	7/21/2010	38-48	low-flow	3	2300	430	8	170	1.9	< 0.5	37	5.6	3.2	0.4	< 0.5	< 0.5	< 1.5	< 0.5
MW-35A2	9/27/2010	38-48	low-flow	8.6	5900	650	12	360	13	< 0.5	50	9.6	3.8	0.43	< 0.5	< 0.5	< 1.5	< 0.5
MW-35A2	2/2/2011	42.95-44.15	passive	3.4	2300	4300	22	280	27	< 5	46	9.2	3.7	< 5	< 5	< 5	< 15	< 5
MW-35A2	7/27/2011	42.77-43.97	passive	8.9	5900	1200	18	620	20	< 0.5	62	9.9	4.9	0.45	< 0.5	< 0.5	< 1.5	< 0.5
MW-35A2	1/25/2012	43.04-44.24																

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-37A	9/1/2009	17-27	passive/low-flow	< 1	< 1	24.7	0.36 J	< 1	47.4	< 1	1.1	< 1	< 1	0.97 J	< 1	< 1	< 2	< 1	
MW-37A-DUP	9/1/2009	17-27	passive/low-flow	< 1	< 1	24	0.44 J	< 1	43.7	< 1	1.1	< 1	< 1	0.93 J	< 1	< 1	< 2	< 1	
MW-37A	10/5/2009	17-27	passive	< 1	< 1	9.2	0.32 J	< 1	37.3	< 1	0.71 J	< 1	< 1	1.1	< 1	< 1	< 2	< 1	
MW-37A	11/4/2009	17-27	passive	< 1	< 1	5.2	< 1	< 1	50.3	< 1	0.65 J	< 1	< 1	0.73 J	< 1	< 1	< 2	< 1	
MW-37A	12/4/2009	17-27	passive/low-flow	< 1	< 1	4	< 1	< 1	22.1	< 1	0.76 J	< 1	< 1	0.94 J	0.52 J	< 1	< 2	< 1	
MW-37A	1/27/2010	17-27	passive	< 1	< 1	2.7	0.48 J	< 1	12.1	< 1	0.49 J	< 1	< 1	0.95 J	< 1	< 1	< 2	< 1	
MW-37A	2/25/2010	17-27	passive/low-flow	< 1	< 1	2	0.63 J	< 1	13.3	< 1	0.5 J	< 1	< 1	1.1	< 1	< 1	< 2	< 1	
MW-37A	3/29/2010	17-27	passive	< 0.5	< 0.5	1.5	0.7	< 0.5	13	< 0.5	0.45 J	< 0.5	< 0.5	1.1	0.38 J	< 0.5	< 1.5	< 0.5	
MW-37A	4/26/2010	17-27	passive	< 0.5	< 0.5	1.2	0.69	< 0.5	9.6	< 0.5	< 0.5	< 0.5	< 0.5	1	0.31 J	< 0.5	< 1.5	< 0.5	
MW-37A	7/22/2010	20.9-22.1	passive	< 0.5	< 0.5	0.69	< 0.5	< 0.5	8.8	< 0.5	< 0.5	< 0.5	< 0.5	0.94	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	10/22/2010	21.15-22.35	passive	< 0.5	< 0.5	1.1	0.6	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	1.4	0.42 J	< 0.5	< 1.5	< 0.5	
MW-37A	2/2/2011	21.06-22.26	passive	< 0.5	< 0.5	1.2	0.47	< 0.5	8.8	< 0.5	< 0.5	< 0.5	< 0.5	1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	4/25/2011	21.00-22.2	passive	< 0.5	< 0.5	1.3	0.86	< 0.5	19	< 0.5	< 0.5	< 0.5	< 0.5	0.86	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	7/26/2011	20.68-21.88	passive	< 0.5	0.4 J	1.5	0.66	< 0.5	11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	10/25/2011	21.05-22.25	passive	< 0.5	< 0.5	2.5	0.51	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	1/23/2012	20.90-22.10	passive	< 1	0.38 J	2.5	0.54 J	< 1	14	< 1	< 1	< 1	< 1	1.2	< 5	< 1	< 3	< 1	
MW-37A	4/30/2012	21.1-22.3	passive	< 0.5	< 0.5	2	0.74	< 0.5	9.3	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A DUP	4/30/2012	21.1-22.3	passive	< 0.5	< 0.5	1.8	0.79	< 0.5	10	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	7/24/2012	20.94-22.14	passive	< 0.5	< 0.5	2.4	0.51	< 0.5	13	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	10/31/2012	21.04-22.24	passive	< 0.5	< 0.05	3	0.61	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	1/29/2013	20.90-22.10	passive	< 0.5	< 0.5	1.9	0.59	< 0.5	8	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A*	4/25/2013*	20.70-21.90	passive	0.88	180	31	0.77	2.2	0.77	< 0.5	0.62	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	5/16/2013	20.70-21.90	passive	< 0.5	< 0.5	2.5	0.6	< 0.5	10	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	7/23/2013	20.72-21.92	passive	< 0.5	< 0.5	2.5	0.61	< 0.5	9.8	0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A dup	7/23/2013	20.72-21.92	passive	< 0.5	< 0.5	2.4	0.58	< 0.5	9.1	0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	10/31/2013	21.00-22.20	passive	< 0.5	< 0.5	3.6	0.76	< 0.5	11	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	1/23/2014	21.00-22.20	passive	< 0.5	< 0.5	4.4	0.98	< 0.5	16	< 0.5	< 0.5	< 0.5	< 0.5	4.6	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A-dup	1/23/2014	21.00-22.20	passive	< 0.5	< 0.5	4.1	0.9	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	7/28/2014	21.2-22.40	passive	< 0.5	< 0.5	2.8	0.83	< 0.5	13	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A dup	7/28/2014	21.2-22.40	passive	< 0.5	< 0.5	3.4	0.94	< 0.5	15	< 0.5	< 0.5	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	1/14/2015	21.02-22.22	passive	< 0.5	< 0.5	2.9	1.1	< 0.5	10	< 0.5	< 0.5	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	7/28/2015	20.82-22.02	passive	< 0.5	< 0.5	2.65	0.874	< 0.5	7.71	< 0.5	< 0.5	< 0.5	< 0.5	1.51	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A dup	7/28/2015	20.82-22.02	passive	< 0.5	< 0.5	2.46	0.893	< 0.5	7.56	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	1/26/2016	22.10-23.30	passive	< 0.5	0.56	2.67	1.1	< 0.5	6.3	< 0.5	< 0.5	< 0.5	< 0.5	1.68	< 0.5	< 0.5	< 1.5	< 0.5	
MW-37A	7/26/2016	22.20 - 23.40	passive	< 0.5	0.307 J	3.24	1.32	< 0.5	6.81	< 0.5	< 0.5	< 0.5	< 0.5	1.85	0.131 J	< 0.5	< 1.5	< 0.5	
MW-37A	2/27/2017	22.15-23.35	passive	< 0.5	<0.349 U	4.51	1.26	< 0.5	9.8	< 0.5	< 0.5	< 0.5	< 0.5	1.6	< 1	< 0.5	< 1.5	< 0.5	
MW-38A	7/23/2009	18-28	traditional	< 1	1.1	52	< 1	0.45 J	2	< 1	0.67 J	< 1	< 1	1.1	< 1	< 1	< 2	< 1	
MW-38A	9/1/2009	18-28	passive/low-flow	< 1	0.74 J	33.3	0.52 J	0.27 J	2.8	< 1	0.82 J	< 1	< 1	1.1	< 1	< 1	< 2	< 1	
MW-38A	10/5/2009	18-28	passive	< 1	0.96 J	17.1	< 1	< 1	2.3	< 1	0.66 J	< 1	< 1	1	< 1	< 1	< 2	< 1	
MW-38A	11/4/2009	18-28	passive	< 1	0.62 J	11.8	< 1	< 1	2.2	< 1	0.43 J	< 1	< 1	0.82 J	< 1	< 1	< 2	< 1	
MW-38A	12/4/2009	18-28	passive/low-flow	< 1	0.47 J	12.3	< 1	< 1	1.2	< 1	0.41 J	< 1	< 1	1	< 1	< 1	< 2	< 1	
MW-38A	1/27/2010	18-28	passive	< 1	< 1	11.9	< 1	< 1	1.8	< 1	< 1	< 1	< 1	1.1	< 1	< 1	< 2	< 1	
MW-38A	2/25/2010	18-28	passive/low-flow	< 1	< 1	11.4	< 1	< 1	3.4	< 1	< 1	< 1	< 1	1.1	< 1	< 1	< 2	< 1	
MW-38A	3/29/2010	18-28	passive	< 0.5	0.35 J	9.6	< 0.5	< 0.5	4.6	< 0.5	< 0.5	< 0.5	< 0.5	1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A	4/26/2010	18-28	passive	< 0.5	< 0.5	8.3	< 0.5	< 0.5	5.1	< 0.5	< 0.5	< 0.5	< 0.5	0.95	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A	7/22/2010	20.9-22.1	passive	< 0.5	0.54	1.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A	10/22/2010	21.03-22.23	passive	< 0.5	0.78	4.3	< 0.5	< 0.5	4.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	0.44 J	< 0.5	< 1.5	< 0.5	
MW-38A	2/1/2011	21.20-22.40	passive	< 0.5	< 0.5	2.8	< 0.5	< 0.5	3.8	< 0.5	< 0.5	< 0.5	< 0.5	0.84	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A	4/25/2011	21.10-22.30	passive	< 0.5	< 0.5	2	< 0.5	< 0.5	3.9	< 0.5	< 0.5	< 0.5	< 0.5	0.57	< 0.15	< 0.5	< 1.5	< 0.5	
MW-38A	7/26/2011	20.72-21.92	passive	< 0.5	< 0.5	0.62	< 0.5	< 0.5	0.35 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A dup	7/26/2011	20.72-21.92	passive	< 0.5	< 0.5	0.65	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A	10/25/2011	21.21-22.41	passive	< 0.5	< 0.5	1.3	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 0.5	0.61	< 0.5	< 0.5	< 1.5	< 0.5	
MW-38A	1/23/2012	21.20-22.40	passive	< 1	0.32 J	0.83 J	< 1	< 1	1.9	< 1	< 1	< 1	<						

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	0.5	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-39A	10/5/2009	16-26	passive	< 1	0.37 J	3.4	< 1	< 1	< 0.50 J	< 1	< 1	< 1	< 1	2.4	< 1	< 1	< 2	< 1	
MW-39A	11/4/2009	16-26	passive	< 1	< 1	2.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.2	< 1	< 1	< 2	< 1	
MW-39A	12/3/2009	16-26	passive/low-flow	< 1	0.30 J	1.4	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.5	< 1	< 1	< 2	< 1	
MW-39A	1/27/2010	16-26	passive	< 1	0.44 J	1.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.7	< 1	< 1	< 2	< 1	
MW-39A	2/25/2010	16-26	passive/low-flow	< 1	0.49 J	1.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.7	< 1	< 1	< 2	< 1	
MW-39A	3/29/2010	16-26	passive	< 0.5	0.58	0.97	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.3	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	4/26/2010	16-26	passive	< 0.5	0.5 J	0.88	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	7/22/2010	20.6-21.8	passive	< 0.5	0.37 J	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	10/22/2010	21.14-22.34	passive	< 0.5	0.46 J	0.32 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	2/1/2011	21.85-23.05	passive	< 0.5	0.4	0.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	4/25/2011	21.03-22.23	passive	< 0.5	0.59	0.89	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	7/26/2011	21.69-22.89	passive	< 0.5	0.56	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	10/25/2011	20.84-22.04	passive	< 0.5	0.36 J	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A DUP	10/25/2011	20.84-22.04	passive	< 0.5	0.53	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	1/24/2012	20.62-21.82	passive	< 1	0.44 J	0.48 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2.5	< 5	< 1	< 3	< 1	
MW-39A	4/30/2012	21-22.2	passive	< 0.5	0.42 J	0.49 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	7/24/2012	21.04-22.24	passive	< 0.5	0.43 J	0.37 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.4	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	10/31/2012	21.02-22.22	passive	< 0.5	0.59	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.05	2.8	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	1/29/2013	20.92-22.12	passive	< 0.5	< 0.5	0.46	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.9	< 0.5	< 0.5	< 0.5	< 0.5	
MW-39A	4/25/2013	20.98-22.18	passive	< 0.5	0.31 J	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	7/23/2013	20.82-22.02	passive	< 0.5	< 0.5	0.43 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	10/31/2013	20.80-22.00	passive	< 0.5	0.39 J	0.44 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.9	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A DUP	10/31/2013	20.80-22.00	passive	< 0.5	0.31 J	0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	1/23/2014	21.05-22.25	passive	< 0.5	0.33	0.55	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	7/29/2014	20.99-22.19	passive	< 0.5	0.37 J	0.48 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	1/13/2015	20.98-22.18	passive	< 0.5	< 0.5	0.59	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.8	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	7/28/2015	20.88-22.08	passive	< 0.5	< 0.5	0.423 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.51	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A	1/26/2016	20.80-22.00	passive	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.9	0.34	< 0.5	< 1.5	< 0.5	
MW-39A	7/26/2016	20.97 - 22.17	passive	< 0.5	< 0.5	0.552	< 0.5	< 0.5	0.175 J	< 0.5	< 0.5	< 0.5	< 0.5	2.97	0.42 J	< 0.5	< 1.5	< 0.5	
MW-39A	2/27/2017	21.10-22.30	passive	< 0.5	< 0.5	0.789	< 0.5	< 0.5	1.77	< 0.5	< 0.5	< 0.5	< 0.5	2.51	< 1	< 0.5	< 1.5	< 0.5	
MW-39A2	7/24/2009	32-42	traditional	< 25	2250	14 J	< 25	166	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	
MW-39A2	9/2/2009	32-42	passive/low-flow	< 17	17.9	917	5.5 J	47.1	< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 17	< 33	< 17	
MW-39A2	10/5/2009	32-42	passive	< 20	< 20	417	< 20	6.9 J	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-39A2	11/4/2009	32-42	passive	< 10	< 10	195	3.1 J	2.1 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-39A2	12/3/2009	32-42	passive/low-flow	< 10	< 10	187	4.4 J	< 10	408	< 10	3.6 J	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-39A2	1/27/2010	32-42	passive	< 5	< 5	86	2.7 J	< 5	305	< 5	2.8 J	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-39A2	2/25/2010	32-42	passive/low-flow	< 5	< 5	30	2.1 J	< 5	314	< 5	3.2 J	< 5	< 5	1.5 J	< 5	< 5	< 10	< 5	
MW-39A2	3/29/2010	32-42	passive	< 0.5	1.2 J	5.2	1.1	0.41 J	240	< 0.5	2.9	0.49 J	0.48 J	1.3	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	4/26/2010	32-42	passive	< 0.5	0.76	2.2	0.3 J	< 0.5	71	< 0.5	1.2	< 0.5	0.36 J	0.8	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	7/22/2010	37.2-38.4	passive	< 0.5	< 0.5	22	0.78	< 0.5	180	< 0.5	1.9	< 0.5	< 0.5	0.64	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	10/22/2010	37.1-38.3	passive	< 2.5	< 2.5	54	2.1 J	< 2.5	210	< 2.5	2.8	< 2.5	0.46	1.2 J	< 2.5	< 2.5	< 7.5	< 2.5	
MW-39A2	2/2/2011	37.10-38.30	passive	< 0.5	0.33	34	1	< 0.5	150	< 0.5	2.3	< 0.5	0.37	0.82	< 0.5	< 0.5	< 1.5	< <0.40	
MW-39A2	4/25/2011	37.28-38.48	passive	< 0.5	< 0.5	42	0.97	< 0.5	100	< 0.5	1.6	< 0.5	< 0.5	0.48 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2 DUP	4/25/2011	37.28-38.48	passive	< 0.5	0.37	43	1	< 0.5	110	< 0.5	1.6	< 0.5	< 0.5	0.56 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	7/27/2011	37.05-38.25	passive	< 0.5	3.3	160	2.5	2.7	180	< 0.5	2.3	0.32 J	0.5	0.72	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	10/25/2011	37.12-38.32	passive	< 0.5	3.8	110	1.8	1.5	120	< 0.5	1.8	< 0.5	0.36 J	0.75	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	1/24/2012	36.94-38.04	passive	< 1	22	160	1.8	6.7	100	< 1	1.6	< 1	< 1	0.78 J	< 5	< 1	< 3	< 1	
MW-39A2	4/30/2012	37.2-38.4	passive	< 0.5	11	190	2.1	8.2	89	< 0.5	1.4	0.31 J	0.31 J	0.53	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	7/25/2012	36.76-37.96	passive	< 0.5	96	170	2	13	100	< 0.5	1.7	0.31 J	0.39 J	0.74	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	10/31/2012	37.11-38.31	passive	< 0.5	19	160	2	8.8	69	< 0.5	1.4	< 0.5	< 0.5	0.79	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	1/30/2013	37.00-28.20	passive	< 0.5	77	160	1.4	11	49	< 0.5	1.3	< 0.5	< 0.5	0.52	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	4/25/2013	37.28-38.48	passive	< 0.5	10	180	1.4	9.1	52	< 0.5	1.2	< 0.5	< 0.5	0.62	< 0.5	< 0.5	< 1.5	< 0.5	
MW-39A2	7/24/2013	37.00-38.20	passive																

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Sample Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-40A	3/29/2010	15-25	passive	< 0.5	< 0.5	3.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	4/26/2010	15-25	passive	< 0.5	< 0.5	2.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	7/22/2010	21.1-22.3	passive	< 0.5	0.35 J	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	10/22/2010	21.09-22.29	passive	< 0.5	< 0.5	4.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A DUP	10/22/2010	21.09-22.29	passive	< 0.5	< 0.5	2.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	2/1/2011	21.10-22.30	passive	< 0.5	< 0.5	3.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.1	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	4/25/2011	21.12-22.32	passive	< 0.5	< 0.5	3.4	< 0.5	< 0.5	0.33 J	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	7/26/2011	20.72-21.92	passive	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.4	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	10/25/2011	20.88-22.08	passive	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.9	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	1/24/2012	20.88-22.08	passive	< 1	< 1	1.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	< 5	< 1	< 3	< 1
MW-40A	4/30/2012	21.0-22.2	passive	< 0.5	< 0.5	3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	7/24/2012	20.90-22.1	passive	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	10/31/2012	20.90-22.10	passive	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	1/29/2013	21.02-22.22	passive	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A dup	1/29/2013	21.02-22.22	passive	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	4/25/2013	20.83-22.03	passive	< 0.5	< 0.5	0.77	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	7/23/2013	20.90-22.10	passive	< 0.5	< 0.5	0.73	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	10/31/2013	20.88-22.08	passive	< 0.5	< 0.5	0.71	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	1/23/2014	20.80-22.00	passive	< 0.5	< 0.5	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	7/28/2014	21.04-22.24	passive	< 0.5	< 0.5	0.44 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	1/14/2015	20.97-22.17	passive	< 0.5	< 0.5	0.38 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.6	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	7/28/2015	20.88-22.08	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A	1/26/2016	21.50-22.70	passive	< 0.5	< 0.5	0.41 J	< 0.5	< 0.5	0.22 J	< 0.5	< 0.5	< 0.5	< 0.5	2.51	0.25 J	< 0.5	< 1.5	< 0.5
MW-40A	7/26/2016	21.59 - 22.79	passive	< 0.5	< 0.5	0.277 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.51	0.297 J	< 0.5	< 1.5	< 0.5
MW-40A	2/27/2017	21.85-23.05	passive	< 0.5	< 0.154 U	0.138 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.328 J	< 1	< 0.5	< 1.5	< 0.5
MW-40A2	7/27/2009	35-45	traditional	< 5	420	6.6	< 5	21.6	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-40A2	9/2/2009	35-45	passive/low-flow	< 3.3	162	7.5	< 3.3	12 J	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 6.7	< 3.3
MW-40A2	10/5/2009	35-45	passive	< 3.3	71.6	6.2	< 3.3	5.2	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 6.7	< 3.3
MW-40A2	11/4/2009	35-45	passive	< 1	17	6	< 1	1.7	< 1	< 1	< 1	< 1	< 1	0.53 J	< 1	< 1	< 2	< 1
MW-40A2	12/3/2009	35-45	passive/low-flow	< 1	14.5	9.3	< 1	1.7	< 1	< 1	< 1	< 1	< 1	0.67 J	< 1	< 1	< 2	< 1
MW-40A2	1/27/2010	35-45	passive	< 1	7	17.2	< 1	1.3	< 1	< 1	< 1	< 1	< 1	0.63 J	< 1	< 1	< 2	< 1
MW-40A2	2/25/2010	35-45	passive/low-flow	< 1	4.2	16.3	< 1	1.1 J	< 1	< 1	< 1	< 1	< 1	0.58 J	< 1	< 1	< 2	< 1
MW-40A2	3/29/2010	35-45	passive	< 0.5	6.1	22	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.55 J	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	4/26/2010	35-45	passive	< 0.5	4.5	16	< 0.5	0.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.47 J	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	7/22/2010	36.9-38.1	passive	< 0.5	1.2	12	< 0.5	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.77	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	10/22/2010	36.94-38.14	passive	< 0.5	1.1	19	< 0.5	0.59	< 0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	0.92	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	2/1/2011	36.82-38.02	passive	< 0.5	1.6	30	< 0.5	0.67	< 2.1 J	< 0.5	< 0.5	< 0.5	< 0.5	0.66	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	4/25/2011	37.01-38.21	passive	< 0.5	0.77	21	< 0.5	0.46 J	< 2.9 J	< 0.5	< 0.5	< 0.5	< 0.5	0.85	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	7/26/2011	36.85-38.05	passive	< 0.5	1.8	29	< 0.39 J	< 0.5	13	< 0.5	< 0.31 J	< 0.5	< 0.5	0.9	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	11/17/2011	36.40-39.40	passive	< 1	79	21	< 0.53 J	3	3.8	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 3	< 1
MW-40A2	1/24/2012	37.26-38.46	passive	< 1	1.7	0.54 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 3	< 1
MW-40A2	4/30/2012	37.4-38.6	passive	< 0.5	56	11	< 0.46 J	2.0	1.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	7/24/2012	36.88-38.08	passive	< 0.5	20	23	< 0.64	0.8	18	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	10/31/2012	38-39.2	passive	< 0.5	78	13	< 0.74	2.5	0.96	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	1/29/2013	36.77-37.97	passive	0.33 J	130	24	< 1.2	3.1	2.4	< 0.5	< 0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	4/25/2013	38.26-39.46	passive	< 0.5	84	27	< 0.6	3	1.8	< 0.5	< 0.35 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	8/9/2013	36.78-37.98	passive	< 0.5	22	45	< 0.79	1.9	5.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	11/22/2013	36.78-37.98	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	1/23/2014	42.87-44.07	passive	< 0.5	28	12	< 0.5	1.2	5.7	< 0.5	< 0.5	< 0.5	< 0.5	0.45	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	7/29/2014	36.82-38.02	passive	< 0.5	24	31	< 0.49 J	1	9.8	< 0.5	< 0.33 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	1/14/2015	37.01-38.21	passive	< 0.5	11	7.5	< 0.5	0.34 J	2.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-40A2	7/28/2015	42.86-44.06	passive	< 0.5														

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Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-41A	7/26/2011	20.62-21.82	passive	< 0.5	0.68	19	0.85	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	0.76	< 0.5	< 0.5	< 0.5	< 0.5	
MW-41A	10/25/2011	20.73-21.93	passive	< 0.5	0.63	7.9	< 0.5	< 0.5	0.35	< 0.5	< 0.5	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 0.1666667	< 0.5	
MW-41A	1/24/2012	20.79-21.99	passive	< 1	0.41	6.5	< 1	< 1	0.47	< 1	< 1	< 1	< 1	1.4	< 5	< 1	< 3	< 1	
MW-41A	4/30/2012	21.0-22.2	passive	< 0.5	0.38	11	0.51	< 0.5	0.99	< 0.5	< 0.5	< 0.5	< 0.5	0.83	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	7/24/2012	20.91-22.11	passive	< 0.5	0.4	3.8	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	10/31/2012	21-22.2	passive	< 0.5	0.32	5.3	< 0.5	< 0.5	0.3	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	1/29/2013	20.86-22.06	passive	< 0.5	0.41	2.2	< 0.5	< 0.5	0.54	< 0.5	< 0.5	< 0.5	< 0.5	0.8	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	4/25/2013	20.87-22.07	passive	< 0.5	0.83	1.6	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	7/23/2013	20.88-22.08	passive	< 0.5	< 0.5	1.8	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	10/31/2013	20.88-22.08	passive	< 0.5	< 0.5	2.3	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	1/22/2014	20.78-21.98	passive	< 0.5	< 0.5	2	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	7/29/2014	20.95-22.15	passive	< 0.5	0.88	2	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.98	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	1/13/2015	21.14-22.34	passive	< 0.5	0.62	< 0.5	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	7/28/2015	20.74-21.94	passive	< 0.5	< 0.5	0.502	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.607	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A DUP	7/28/2015	20.74-21.94	passive	< 0.5	< 0.5	0.469	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.625	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	1/26/2016	20.75-21.95	passive	< 0.5	0.6	1.3	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.21	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	7/26/2016	20.90 - 22.10	passive	< 0.5	0.646	0.925	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.324	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A (DUP)	7/26/2016	20.90 - 22.10	passive	< 0.5	0.604	0.845	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.304	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A	2/27/2017	20.96-22.06	passive	< 0.5	8.51	12.8	0.283	< 0.5	0.455	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-41A	7/12/2017	20.93-22.03	passive	< 0.5	11.0	18.6	0.403	< 0.5	0.326	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A (DUP)	7/12/2017	20.93-22.03	passive	< 0.5	11.4	18.6	0.431	< 0.5	0.326	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	7/27/2009	36-46	traditional	< 4	287	5	< 4	14	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-41A2	9/3/2009	36-46	passive/low-flow	< 6.7	303	7.3	< 6.7	14.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-41A2	10/5/2009	36-46	passive	< 6.7	292	5.1	< 6.7	13.8	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-41A2-DUP	10/5/2009	36-46	passive	< 6.7	291	5.3	< 6.7	13.3	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 6.7	< 13	< 6.7	
MW-41A2	11/4/2009	36-46	passive	< 5	239	4.8	< 5	9.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-41A2 DUP	11/4/2009	36-46	passive	< 5	242	4.8	< 5	9.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-41A2	12/3/2009	36-46	passive/low-flow	< 5	248	7.6	< 5	11.1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-41A2	1/27/2010	36-46	passive	< 4	225	6.8	< 4	10.1	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-41A2 DUP	1/27/2010	36-46	passive	< 4	232	6.8	< 4	9.6	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-41A2	2/25/2010	36-46	passive/low-flow	< 4	247	7.5	< 4	10.5	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-41A2	3/29/2010	36-46	passive	0.3	200	7.4	0.71	10	< 0.5	< 0.5	0.75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	4/26/2010	36-46	passive	< 0.5	180	6.6	0.64	8.9	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	8/18/2010	39.4-40.6	passive/low-flow	0.36	210	11	0.53	14	0.36	< 0.5	0.88	0.31	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2 DUP	8/18/2010	39.4-40.6	passive/low-flow	0.34	220	12	0.52	14	0.34	< 0.5	0.85	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	10/22/2010	39.50-40.70	passive	< 2.5	210	10	< 2.5	10	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-41A2	2/2/2011	39.78-40.98	passive	< 0.5	170	9.6	0.66	6.9	< 0.5	< 0.5	0.58	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	4/25/2011	39.66-40.86	passive	< 0.5	93	7.4	0.54	3.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	7/27/2011	39.29-40.49	passive	< 0.5	170	8.1	0.76	11	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	10/25/2011	39.51-40.71	passive	0.32	150	8.2	0.38	7.4	< 0.5	< 0.5	0.47	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	1/24/2012	39.46-40.66	passive	< 1	140	9.6	0.6	5.6	0.34	< 1	0.41	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-41A2	4/30/2012	39.7-40.9	passive	< 0.5	140	7.2	0.55	5.9	< 0.5	< 0.5	0.45	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	7/25/2012	39.89-41.09	passive	< 0.5	150	7.8	0.54	6.4	< 0.5	< 0.5	0.43	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	10/31/2012	39.75-40.95	passive	< 0.5	120	8.6	0.57	4.4	< 0.5	< 0.5	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	1/30/2013	39.90-41.10	passive	< 0.5	140	8.1	0.51	4.5	0.45	< 0.5	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	4/25/2013	39.88-41.08	passive	< 0.5	120	8.5	0.51	4.3	< 0.5	< 0.5	0.38	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	7/24/2013	39.90-41.10	passive	< 0.5	110	8.5	0.55	4.1	0.31	< 0.5	0.38	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	10/31/2013	39.90-41.10	passive	< 0.5	100	11	0.6	4.2	0.84	< 0.5	0.39	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	1/22/2014	39.81-41.01	passive	< 0.5	130	13	0.6	4.4	0.96	< 0.5	0.48	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	7/29/2014	39.79-40.99	passive	0.33	130	13	0.5	3.5	1	< 0.5	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2 (DUP)	7/29/2014	39.79-40.99	passive	0.35	140	15	0.5	4.1	1.4	< 0.5	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	1/14/2015	39.94-41.14	passive	0.42	150	14	0.58	4.5	0.97	< 0.5	0.57	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-41A2	7/28																		

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-42A	2/2/2011	20.70-21.90	passive	< 0.5	76	180	1.9	3.7	10	< 0.5	1.3	0.32	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	4/25/2011	20.80-22.0	passive	< 2.5	1.3 J	250	1.6 J	3.7	8.7	< 2.5	0.8 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-42A	7/27/2011	22.71-23.91	passive	< 0.5	65	210	3.9	3.8	34	< 0.5	1.4	0.33 J	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	10/25/2011	21.92-23.12	passive	< 0.5	20	160	2.8	2.1	30	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	1/24/2012	22.88-24.08	passive	< 1	56	100	1.5	2.8	15	< 1	0.84 J	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-42A	4/30/2012	22.2-23.4	passive	0.56	120	170	3.6	4.9	6	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	7/25/2012	23.12-24.32	passive	0.94	190	62	1.2	3.8	2.7	< 0.5	0.97	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	10/31/2012	22.74-23.94	passive	1.1	200	35	1.1	3.4	1.7	< 0.5	0.76	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	1/30/2013	22.95-24.15	passive	1.1	180	33	0.74	2.5	2.1	< 0.5	0.64	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A*	4/25/2013*	21.84-23.04	passive	< 0.5	0.6	2.8	0.66	< 0.5	12	< 0.5	< 0.5	< 0.5	< 0.5	1.3	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	5/16/2013	21.84-23.04	passive	0.73	160	24	0.65	1.9	0.34 J	< 0.5	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	7/24/2013	23.18-24.38	passive	0.71	170	31	1	2.8	1.3	< 0.5	0.73	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A dup	7/24/2013	23.18-24.38	passive	0.72	180	32	1.1	3	1.4	< 0.5	0.75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	10/31/2013	23.20-24.40	passive	0.8	160	58	1	3.3	2.2	< 0.5	0.71	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.56 J	< 0.5	
MW-42A	1/23/2014	23.46-24.66	passive	0.8	150	78	1.5	3.7	3.3	< 0.5	0.85	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	7/29/2014	23.25-24.45	passive	< 0.5	54	110	1.1	1.5	9.5	< 0.5	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	1/14/2015	23.01-24.21	passive	0.73	120	37	0.55	1.5	4.1	< 0.5	0.41 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	7/28/2015	23.93-25.13	passive	0.766	108	34.2	0.702	1.76	4.87	< 0.5	0.377 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	1/26/2016	21.75-22.95	passive	0.44	104	36.2	0.79	1.8	5.5	< 0.5	0.53	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	7/26/2016	23.90 - 25.10	passive	0.818	142	34.4	0.763	1.8	2.29	< 0.5	0.455 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-42A	2/27/2017	17.00-18.2	passive	1.04	172	33.4	0.918	1.96	2.38	< 0.5	0.401 J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-42A dup	2/27/2017	17.00-18.2	passive	< 0.5	< 0.5	0.843	0.158 J	< 0.5	1.64	< 0.5	< 0.5	< 0.5	< 0.5	2.44	< 1	< 0.5	< 1.5	< 0.5	
MW-43A	7/23/2009	18-28	traditional	0.74 J	214	76.6	0.8	5.4	1.5 J	< 2.5	1.4 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-43A	9/1/2009	18-28	passive/low-flow	< 2	80.1	106	0.90 J	3.2	7.6	< 2	1.5 J	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-43A	12/4/2009	18-28	passive/low-flow	< 2	113	117	1.1 J	4.4	14	< 2	1.4 J	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-43A	1/27/2010	18-28	passive	< 2	122	95.5	1.1 J	3.8	14	< 2	1.3 J	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-43A	2/25/2010	18-28	passive/low-flow	< 2.5	8.6	179	1.9	2.7	14.2	< 2.5	1.4 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 2.5	
MW-43A	4/26/2010	18-28	passive	< 0.5	71	120	0.61	2.6	6.1	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	7/22/2010	21.1-22.3	passive	< 0.5	28	95	0.7	2.8	12	< 0.5	0.79	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	10/22/2010	21.15-22.35	passive	< 1	9.8	180	2.9	2.1	32	< 1	1.1	< 1	< 1	< 1	< 1	< 1	< 3	< 1	
MW-43A	2/2/2011	21.18-22.38	passive	< 0.5	5	94	1.1	0.37	55	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	4/25/2011	20.82-22.02	passive	< 0.5	4.6	71	0.72	0.41 J	30	< 0.5	0.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	7/27/2011	21.00-22.20	passive	< 0.5	0.63	13	< 0.5	< 0.5	2.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	10/25/2011	20.61-21.81	passive	< 0.5	20	160	3.1	<0.50	30	< 0.5	0.96	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	1/23/2012	21.31-22.51	passive	< 1	0.57 J	7.6	< 1	0.48 J	26	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-43A	4/30/2012	21.3-22.5	passive	< 0.5	0.49 J	3.8	< 0.5	< 0.5	23	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	7/25/2012	20.97-22.17	passive	< 0.5	7.6	4.8	< 0.5	< 0.5	3.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	10/31/2012	21.25-22.45	passive	< 0.5	1.2	4.6	< 0.5	< 0.5	15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	1/30/2013	21.00-22.20	passive	< 0.5	0.77	4.3	< 0.5	< 0.5	19	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	4/25/2013	20-21.20	passive	< 0.5	0.82	3.6	< 0.5	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A-Dup	4/25/2013	20-21.20	passive	< 0.5	0.75	3.5	< 0.5	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 2.5	
MW-43A	7/24/2013	20.80-22.00	passive	< 0.5	0.79	3.6	< 0.5	< 0.5	9.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	10/31/2013	20.80-22.00	passive	< 0.5	0.6	5.8	< 0.5	< 0.5	13	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	1/23/2014	21.00-22.20	passive	< 0.5	0.67	3.4	< 0.5	< 0.5	15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	7/28/2014	21.11-22.31	passive	< 0.5	42	86	0.62	1	5.5	< 0.5	0.36 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	1/14/2015	21.05-22.25	passive	0.56	92	32	0.36 J	0.91	0.9	< 0.5	0.33 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-43A	7/28/2015	20.86-22.06	passive	< 0.5	33.5	19.3	< 0.5	0.327 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-43A	1/26/2016	21.71-22.91	passive	< 0.5	26.1	47.2	3.5	0.49 J	10.4	< 0.5	0.31 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-43A	7/26/2016	21.90 - 23.10	passive	< 0.5	8.93	45.9	5.21	0.254 J	12.5	< 0.5	0.309 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	
MW-43A	2/27/2017	21.76-22.96	passive	< 0.5	< 0.5	25.8	8.18	< 0.5	18.5	< 0.5	0.237 J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-44A	7/23/2009	16-26	traditional	< 1	23	20.4	0.50 J	1.9	1.1	< 1	< 1	< 1	< 1	1.2	7.6	1.5	8.1	< 1	
MW-44A	9/3/2009	16-26	passive/low-flow	< 1	0.32 J	29.3	0.47 J	< 1	18.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-44A	12/3/2009	16-26	passive/low-flow	< 1	< 1	3.2	0.42 J	< 1	31.3	< 1	0.34 J	< 1	< 1	0.5 J	< 1				

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-44A	7/23/2013	20.85-22.05	passive	< 0.5	5	37	1.3	0.36 J	24	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	10/31/2013	20.83-22.03	passive	< 0.5	2.1	41	1.5	< 0.5	38	< 0.5	0.6	< 0.5	< 0.5	0.31 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	1/23/2014	21.01-22.21	passive	< 0.5	2	35	1.1	< 0.5	29	< 0.5	0.44 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	7/29/2014	21.00-22.20	passive	< 0.5	2.7	49	1.4	0.31 J	45	< 0.5	0.57	< 0.5	< 0.5	0.3 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	1/13/2015	21.06-22.26	passive	< 0.5	0.98	28	1.7	< 0.5	70	< 0.5	0.66	< 0.5	< 0.5	0.43 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	7/28/2015	20.89-22.19	passive	< 0.5	0.748	37.4	1.43	< 0.5	63.3	< 0.5	0.577	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	1/26/2016	20.80-22.00	passive	< 0.5	1.1	45.9	1.7	< 0.5	86.3	< 0.5	0.71	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	7/26/2016	21.02 - 22.22	passive	< 0.5	1.14	44.8	1.57	< 0.5	75	< 0.5	0.595	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A	2/27/2017	21.15-22.35	passive	< 0.5	< 0.5	21.8	1.74	< 0.5	53.3	< 0.5	0.507	< 0.5	< 0.5	0.391 J	< 1	< 0.5	< 1.5	< 0.5	
MW-44A2	7/23/2009	32-42	traditional	< 20	1530	30	< 20	106	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-44A2	9/3/2009	32-42	passive/low-flow	< 6.7	305	364	2.2 J	41.4	< 6.7	< 6.7	3.7 J	< 6.7	< 6.7	2.5 J	< 6.7	< 6.7	< 13	< 6.7	
MW-44A2	12/3/2009	32-42	passive/low-flow	< 4	< 4	94.4	< 4	< 4	207	< 4	2.4 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-44A2	1/26/2010	32-42	passive	< 4	< 4	8.5	< 4	< 4	184	< 4	1.5 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-44A2	2/25/2010	32-42	passive/low-flow	< 4	< 4	2.9 J	< 4	< 4	149	< 4	1.9 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-44A2	4/26/2010	32-42	passive	< 0.5	< 0.5	0.53	0.63	< 0.5	170	< 0.5	1.8	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/22/2010	36.9-38.1	passive	< 0.5	< 0.5	0.55	0.35 J	< 0.5	83	< 0.5	1.4	< 0.5	< 0.5	0.63	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	10/22/2010	36.89-38.19	passive	< 0.5	< 0.5	1.3	0.82	< 0.5	66	< 0.5	1.8	< 0.5	< 0.5	0.96	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	2/2/2011	36.96-38.16	passive	< 0.5	< 0.5	0.9	0.66	< 0.5	22	< 0.5	1.2	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	4/25/2011	36.81	passive	< 0.5	< 0.5	< 0.5	0.46 J	< 0.5	13	< 0.5	0.88	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/27/2011	36.68-37.88	passive	< 0.5	< 0.5	1.1	0.85	< 0.5	23	< 0.5	0.88	< 0.5	< 0.5	0.76	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	10/25/2011	36.92-38.12	passive	< 0.5	0.56	1.5	0.55	< 0.5	20	< 0.5	0.68	< 0.5	< 0.5	0.76	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	1/24/2012	36.86-38.06	passive	< 1	< 1	0.65 J	< 1	< 1	4.9	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-44A2 DUP	1/24/2012	36.86-38.06	passive	< 1	< 1	0.57 J	< 1	< 1	4.9	< 1	0.31 J	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-44A2	4/30/2012	36.9-38.1	passive	< 0.5	< 0.5	0.67	0.44 J	< 0.5	7	< 0.5	0.37 J	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/25/2012	37.12-38.32	passive	< 0.5	< 0.5	1.7	0.49 J	< 0.5	12	< 0.5	0.45 J	< 0.5	< 0.5	0.93	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	10/31/2012	37-38.2	passive	< 0.5	< 0.5	1.6	0.35 J	< 0.5	3.5	< 0.5	0.31 J	< 0.5	< 0.5	0.78	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	1/30/2013	36.92-38.12	passive	< 0.5	< 0.5	1.3	0.32 J	< 0.5	2.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	4/25/2013	36.86-38.06	passive	< 0.5	< 0.5	1.2	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 0.5	0.86	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/24/2013	36.85-38.05	passive	< 0.5	< 0.5	2	0.34	< 0.5	3.9	< 0.5	0.31 J	< 0.5	< 0.5	0.97	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	10/31/2013	36.82-38.02	passive	< 0.5	< 0.5	2.6	0.37 J	< 0.5	2.7	< 0.5	0.32 J	< 0.5	< 0.5	1	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	1/22/2014	37.00-38.20	passive	< 0.5	< 0.5	1.7	< 0.5	< 0.5	2	< 0.5	< 0.5	< 0.5	< 0.5	0.86	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/29/2014	37.00-38.20	passive	< 0.5	< 0.5	1.8	< 0.5	< 0.5	1.7	< 0.5	< 0.5	< 0.5	< 0.5	0.88	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	1/14/2015	36.96-38.16	passive	< 0.5	< 0.5	1.5	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 0.5	< 0.5	0.97	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/28/2015	36.80-38.00	passive	< 0.5	< 0.5	1.66	< 0.5	< 0.5	2.76	< 0.5	< 0.5	< 0.5	< 0.5	0.941	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	1/26/2016	36.79-37.99	passive	< 0.5	< 0.5	1.3	0.21	< 0.5	1.9	< 0.5	< 0.5	< 0.5	< 0.5	0.42 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	7/26/2016	36.96 - 38.16	passive	< 0.5	0.276 J	2.54	0.378 J	< 0.5	5.9	< 0.5	0.283 J	< 0.5	< 0.5	0.873	< 0.5	< 0.5	< 1.5	< 0.5	
MW-44A2	2/28/2017	37.04-38.24	passive	< 0.5	0.166 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-45A	7/24/2009	15-25	traditional	< 1	23.7	6.6	< 1	0.98 J	< 1	< 1	< 1	< 1	< 1	1.6	< 1	< 1	< 2	< 1	
MW-45A	9/3/2009	15-25	passive/low-flow	< 1	2.1	34.9	< 1	0.71 J	0.36 J	< 1	< 1	< 1	< 1	1.2	< 1	< 1	< 2	< 1	
MW-45A	12/3/2004	15-25	passive/low-flow	< 1	< 1	8.6	< 1	< 1	3.9	< 1	< 1	< 1	< 1	0.77 J	< 1	< 1	< 2	< 1	
MW-45A	1/26/2010	15-25	passive	< 1	< 1	1.3	< 1	< 1	0.71 J	< 1	< 1	< 1	< 1	1.9	< 1	< 1	< 2	< 1	
MW-45A	2/25/2010	15-25	passive/low-flow	< 1	< 1	1.6	< 1	< 1	1	< 1	< 1	< 1	< 1	1.5	< 1	< 1	< 2	< 1	
MW-45A	4/26/2010	15-25	passive	< 0.5	< 0.5	0.52	< 0.5	< 0.5	0.83	< 0.5	< 0.5	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A	7/22/2010	21-22.2	passive	< 0.5	< 0.5	0.47 J	< 0.5	< 0.5	1.9	< 0.5	< 0.5	< 0.5	< 0.5	0.88	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A	10/22/2010	20.78-21.98	passive	< 0.5	< 0.5	0.49 J	< 0.5	< 0.5	1.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	0.32 J	< 0.5	< 1.5	< 0.5	
MW-45A	2/1/2011	20.80-22.0	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.92	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A	4/25/2011	20.74-21.94	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A	7/26/2011	20.59-21.79	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.83	0.82	< 0.5	< 1.5	< 0.5	
MW-45A	10/25/2011	20.80-22.00	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.35 J	< 0.5	< 0.5	< 0.5	< 0.5	0.94	0.76	< 0.5	< 1.5	< 0.5	
MW-45A	1/24/2012	20.68-21.88	passive	< 1	< 1	< 1	< 1	< 1	0.61 J	< 1	< 1	< 1	< 1	0.88 J	< 5	< 1	< 3	< 1	
MW-45A	4/30/2012	20.9-22.1	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.54	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A	7/24/2012	21.06-22.26	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.74	< 0.5	< 0.5	< 1.5	< 0.	

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
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 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-45A2	2/25/2010	35-45	passive/low-flow	< 1	3.1	7.8	< 1	0.43 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-45A2	4/26/2010	35-45	passive	< 0.5	10	6.3	< 0.5	0.82	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	8/18/2010	36.7-37.9	passive/low-flow	< 0.5	8.1	14	< 0.5	1	< 0.83	< 0.5	< 0.5	< 0.5	< 0.5	0.37 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	10/22/2010	36.87-38.07	passive	< 0.5	4.9	21	< 0.5	0.69	3.9	< 0.5	0.33 J	< 0.5	< 0.5	0.57	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	2/2/2011	36.27-37.47	passive	< 0.5	7.5	7.5	< 0.5	0.51	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	4/25/2011	36.95-38.15	passive	< 0.5	4.1	3.5	< 0.5	< 0.5	0.5 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	7/27/2011	37.12-38.32	passive	< 0.5	4.9	7	< 0.5	< 0.5	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5 J3	
MW-45A2	10/25/2011	34.40-35.60	passive	< 0.5	3.4	6.9	< 0.5	< 0.5	1.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	1/24/2012	36.66-37.86	passive	< 1	2.1	10	< 1	< 1	4.4	< 1	< 1	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-45A2	4/30/2012	36.8-38	passive	< 0.5	0.38 J	1.9	< 0.5	< 0.5	0.61	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	7/25/2012	36.87-38.07	passive	< 0.5	0.76	9.8	< 0.5	< 0.5	14	< 0.5	< 0.5	< 0.5	< 0.5	0.35 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	10/31/2012	38.85-40.05	passive	< 0.5	0.37 J	7.9	< 0.5	< 0.5	17	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	1/31/2013	36.89-38.09	passive	< 0.5	0.71	5.7	< 0.5	< 0.5	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	4/25/2013	36.80-38.00	passive	< 0.5	0.31 J	5.5	< 0.5	< 0.5	16	< 0.5	< 0.5	< 0.5	< 0.5	0.46 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	7/24/2013	37.00-38.20	passive	< 0.5	0.36 J	7.1	< 0.35 J	< 0.5	25	< 0.5	0.36 J	< 0.5	< 0.5	0.68	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	10/31/2013	37.04-38.24	passive	< 0.5	0.3 J	6.2	0.47 J	< 0.5	23	< 0.5	< 0.5	< 0.5	< 0.5	0.95	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	1/22/2014	36.87-38.07	passive	< 0.5	0.33 J	5	0.43 J	< 0.5	24	< 0.5	< 0.5	< 0.5	< 0.5	0.73	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	7/29/2014	37.10-38.30	passive	< 0.5	< 0.5	5.1	0.4 J	< 0.5	27	< 0.5	< 0.5	< 0.5	< 0.5	0.59	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	1/14/2015	37.04-38.24	passive	< 0.5	< 0.5	3.5	0.34 J	< 0.5	18	< 0.5	< 0.5	< 0.5	< 0.5	0.66	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	7/28/2015	36.83-38.03	passive	< 0.5	< 0.5	6.37	0.549	< 0.5	33.3	< 0.5	0.316 J	< 0.5	< 0.5	0.758	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	1/26/2016	36.91-38.11	passive	< 0.5	0.41 J	10.7	0.59	< 0.5	30.8	< 0.5	0.36 J	< 0.5	< 0.5	0.77	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	7/26/2016	36.92 - 38.12	passive	< 0.5	0.497 J	5.85	0.281 J	< 0.5	20	< 0.5	0.19 J	< 0.5	< 0.5	0.376 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-45A2	2/28/2017	37.12-38.32	passive	< 0.5	0.875	1.91	< 0.5	< 0.5	0.697	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-46A	7/23/2009	15-25	traditional	< 1	84.8	62.9	3.3	2.8	0.52 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-46A	9/3/2009	15-25	passive/low-flow	< 2	90.4	66.5	3.4	3.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-46A	12/2/2009	15-25	passive/low-flow	< 2	90.5	46.8	2.4	3.2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-46A	1/26/2010	15-25	passive	< 2	89.6	51.7	2.4	3.4	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-46A	2/25/2010	15-25	passive/low-flow	< 2	75	53.6	2.8	3.1	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 4	< 2	
MW-46A	4/26/2010	15-25	passive	< 0.5	80	46	2.6	3.2	0.93	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A DUP	4/26/2010	15-25	passive	< 0.5	80	52	2.8	3.8	0.96	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/22/2010	20.1-21.3	passive	< 0.5	20	79	2	2.6	0.91	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A DUP	7/22/2010	20.1-21.3	passive	< 0.5	20	77	1.9	2.8	0.92	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	10/22/2010	20.93-22.13	passive	< 0.5	19	150	3.4	3.7	1.7	< 0.5	0.32 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	2/1/2011	20.88-22.08	passive	< 0.5	6.1	87	2	2.1	1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	4/25/2011	20.00	passive	< 0.5	2.7	94	2.8	2	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/26/2011	19.89-21.09	passive	< 0.5	4.4	90	2.9	2	2.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	10/25/2011	20.06-21.26	passive	< 0.5	5.2	100	3	1.4	6.1	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	1/24/2012	19.94-21.04	passive	< 1	13	93	2.2	1.9	3.6	< 1	0.41 J	< 1	< 1	< 1	< 5	< 1	< 3	< 1	
MW-46A	4/30/2012	20.0-21.2	passive	< 0.5	4.5	110	2.5	2.3	3.1	< 0.5	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A DUP	4/30/2012	20.0-21.2	passive	< 0.5	4.4	120	2.6	2.3	3.3	< 0.5	0.41 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/24/2012	19.92-21.12	passive	< 0.5	8	89	2.4	1.4	3.4	< 0.5	0.33 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	10/31/2012	20-21.2	passive	< 0.5	73	73	1.7	0.81	5.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A dup	10/31/2012	20-21.2	passive	< 0.5	3.8	75	1.7	0.86	5.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	1/29/2013	20.00-21.20	passive	< 0.5	19	70	2.1	1.4	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	4/25/2013	19.98-21.18	passive	< 0.5	20	79	2.4	1.6	1.7	< 0.5	0.3 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/23/2013	20.00-21.20	passive	< 0.5	58	45	1.8	1.6	1.8	< 0.5	0.34 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	10/31/2013	19.97-21.17	passive	< 0.5	66	44	1.6	2.3	2.1	< 0.5	0.42 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	1/23/2014	20.10-21.30	passive	< 0.5	67	38	1.5	2.1	1.9	< 0.5	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/28/2014	20.14-21.34	passive	< 0.5	72	59	1.6	2	3.3	< 0.5	0.52	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	1/13/2015	20.01-21.21	passive	0.33 J	110	53	1.9	2.7	3.4	< 0.5	0.65	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/28/2015	19.83-21.03	passive	0.338 J	119	47.6	1.38	3.23	3.65	< 0.5	0.674	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	1/26/2016	21.07-22.27	passive	0.29 J	109	106	2.2	3.1	5.8	< 0.5	0.85	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A	7/26/2016	21.25 - 22.45	passive	< 0.5	9.01	132	2.3												

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
MW-46A2	4/30/2012	39.9-41.1	passive	< 0.5	79	6.3	0.43 J	2.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	7/24/2012	39.84-41.04	passive	< 0.5	60	3.9	0.5	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	10/31/2012	39.9-41.1	passive	< 0.5	54	3.4	< 0.5	1.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	1/29/2013	39.91-41.11	passive	< 0.5	59	4.6	0.3 J	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	4/25/2013	39.90-41.10	passive	< 0.5	64	4.4	0.36	1.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	7/23/2013	39.92-41.12	passive	< 0.5	55	4.7	0.35 J	1.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	10/31/2013	39.90-41.10	passive	< 0.5	56	7.5	0.47 J	2.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	1/23/2014	39.72-40.92	passive	< 0.5	61	7.6	0.43 J	1.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	7/28/2014	39.78-40.98	passive	< 0.5	58	8.6	0.45 J	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	1/13/2015	39.96-41.16	passive	< 0.5	82	12	0.49 J	2.2	0.3 J	< 0.5	0.34 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2 DUP	1/13/2015	39.96-41.16	passive	< 0.5	79	11	0.52	2	< 0.5	< 0.5	0.33 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	7/28/2015	39.75-40.95	passive	< 0.5	69.5	9.19	0.465 J	2.23	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	1/26/2016	39.75-40.95	passive	< 0.5	82.8	11	0.57	2	0.44 J	< 0.5	0.36 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	7/26/2016	39.90 - 41.10	passive	< 0.5	65.5	8.58	0.469 J	1.35	0.243 J	< 0.5	0.21 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-46A2	2/27/2017	40.62-41.82	passive	< 0.619	174	33.4	0.961	3.04	2.32	< 0.5	0.597	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-46A2	7/14/2017	39.88-40.98	passive	< 0.5	47.1	6.18	0.323 J	1.03	0.180 J	< 0.5	0.163 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
B-Zone Monitoring Wells																			
MW-01D	4/12/1993	45-60	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-01D	4/12/1993	45-60	traditional	< 100	2800	< 100	< 100	100	< 300	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS
MW-01D	4/27/1993	45-60	traditional	< 100	8000	< 100	< 100	200	< 200	< 100	< 100	< 100	< 100	NS	NS	NS	NS	NS	NS
MW-01D	11/17/1995	45-60	traditional	< 25	1100	< 25	< 25	60	< 100	< 25	< 25	< 25	< 25	NS	NS	NS	NS	NS	NS
MW-01D	6/29/2000	45-60	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-01D	6/29/2000	45-60	traditional	2.4	320	3.5	< 1.3	11	< 1.3	< 1.3	2	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NS
MW-01D	3/13/2001	45-60	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.2	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-01D Field Duplicate	3/13/2001	45-60	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-01D	3/13/2001	45-60	traditional	< 2.5	700	8.8	< 2.5	27	< 2.5	< 2.5	7.3	< 2.5	< 2.5	NS	NS	NS	NS	NS	NS
MW-01D Field Duplicate	3/13/2001	45-60	traditional	< 0.5 UJ	0.6	B, J	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	< 0.5 UJ	NS	NS	NS	NS	NS	NS
MW-01D	6/27/2001	45-60	traditional	< 1.3	300	2.1	< 1.3	9.3	< 1.3	< 1.3	1.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NS
MW-01D Field Duplicate	6/27/2001	45-60	traditional	1.5	320	2	< 1.3	10	< 1.3	< 1.3	1.6	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	NS
MW-01D	9/19/2001	45-60	traditional	< 2	520	9.6	< 2	16	< 2	< 2	7	< 2	< 2	3.1	< 2	< 2	< 2	< 2	NS
MW-01D	9/19/2001	46-47.2	passive	4.6	460	9.7	< 2	28	< 2	< 2	2	< 2	< 2	3	< 2	< 2	< 2	< 2	NS
MW-01D	9/19/2001	55-56.2	passive	< 8.3	1900	19	< 8.3	54	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	NS
MW-01D Field Duplicate	9/19/2001	45-60	traditional	< 2.5	530	9	< 2.5	17	< 2.5	< 2.5	6.5	< 2.5	< 2.5	3.6	< 2.5	< 2.5	< 2.5	< 2.5	NS
MW-01D	12/19/2001	46-47.2	passive	9.7	2700	26	3.4	42	< 2.5	< 2.5	13	3.3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	NS
MW-01D	12/19/2001	55-56.2	passive	< 0.5	6.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-01D	3/20/2002	46-47.2	passive	40	3100	27	< 8.3	72	< 8.3	< 8.3	13	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	< 8.3	NS
MW-01D	3/20/2002	55-56.2	passive	< 0.5	3.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-01D	6/21/2002	46-47.2	passive	< 25	1400	15 J	< 25	46	< 25	< 25	13 J	< 25	< 25	11 J	< 25	< 25	< 25	< 25	NS
MW-01D	6/21/2002	51-52.2	passive	< 50	3800	39 J	< 50	120	< 50	< 50	19 J	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS
MW-01D	6/21/2002	56-57.2	passive	< 5	400	3.4 J	< 5	13	< 5	< 5	1.8 J	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS
MW-01D	9/24/2002	51-52.2	passive	< 50	2900	35 J	< 50	120	< 50	< 50	16 J	0 50	< 50	< 50	< 50	< 50	< 50	< 50	NS
MW-01D	11/14/2002	51-52.2	passive	< 100 UJ	3300 J	< 100 UJ	< 100 UJ	100 J	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	< 100 UJ	NS
MW-01D	2/19/2003	46-47.2	passive	< 20	900	12 J	< 20	32	< 20	< 20	13 J	< 20	< 20	5.2 J	< 20	< 20	< 20	< 20	NS
MW-01D	2/19/2003	51-52.2	passive	< 100	2400	30 J	< 100	87 J	< 100	< 100	12 J	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS
MW-01D	2/19/2003	56-57.2	passive	< 2	76	0.88 J	< 2	2.7	< 2	< 2	2	< 2	< 2	2	< 2	< 2	< 2	< 2	NS
MW-01D	5/6/2003	46-47.2	passive	< 20	1000	14 J	< 20	44	< 20	< 20	14 J	< 20	< 20	6.9 J	< 20	< 20	< 20	< 20	NS
MW-01D	5/6/2003	51-52.2	passive	< 100	2600	34 J	< 100	110	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS
MW-01D	5/6/2003	56-57.2	passive	< 10	280	3.6 J	< 10	12	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS
MW-01D	7/22/2003	51-52.2	passive	< 100	3000	51 J	< 100	130	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS
MW-08B (previously MW-01D)	10/24/2003	51-52.2	passive	< 100	2300	40 J	< 100	90 J	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS
MW-08B	3/10/2004	51-52.2	passive	< 20	673	< 20	< 20	36.9	< 20	< 20	< 20	< 20	< 20	41.7	< 20	< 20	< 20	< 20	NS
MW-08B	4/20/2004	45-60	traditional	< 2.5	93	1.1 J	< 2.5	1.8 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	0.88 J	< 2.5	< 2.5	< 2.5	< 2.5	NS
MW-08B Field Duplicate	4/20/2004	45-60	traditional	< 2.5	86	0.74 J	< 2.5	1.9 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	0.61 J	< 2.5	< 2.5	< 2.5	< 2.5	NS
MW-08B	9/14/2004	45-60	traditional	< 5 U															

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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-09B Field Duplicate	7/7/2006	56.9-58.1	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.14 J	< 1	< 1	< 1	< 2
MW-09B	10/16/2006	56.9-58.1	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-09B Field Duplicate	10/16/2006	56.9-58.1	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-09B	2/13/2007	56.7-58.0	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.85 B, U	< 0.5	< 1	< 0.5
MW-09B-DUP	2/13/2007	56.7-58.0	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.79 B, U	< 0.5	< 1	< 0.5
MW-09B	1/28/2008	57.4-58.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-09B	1/14/2009	57.3-58.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-09B	1/26/2010	57.3-58.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-09B	2/1/2011	57.35-58.55	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-09B	1/24/2012	56.86-58.06	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-09B DUP	1/24/2012	56.86-58.06	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-09B	1/30/2013	56.90-58.10	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-09B	1/21/2014	56.84-58.04	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-09B	1/26/2016	56.88-58.08	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-03D	8/25/1993	40-50	traditional	< 2	170	< 2	< 2	15	< 4	< 2	< 2	< 2	< 2	NS	NS	NS	NS	NS
MW-03D	8/25/1993	40-50	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-03D	11/17/1995	40-50	traditional	< 5	280	< 5	< 5	39	< 20	< 5	< 5	< 5	< 5	NS	NS	NS	NS	NS
MW-03D	6/28/2000	40-50	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	< 0.5	NS
MW-03D	6/28/2000	40-50	traditional	< 3.6	1300	< 4.5	< 3.6	91	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6
MW-03D	9/7/2000	40-50	traditional	< 5	1500	< 5	< 5	69	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
MW-03D	3/13/2001	40-50	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	NS	NS
MW-03D Field Duplicate	3/13/2001	40-50	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 0.5	< 0.5	< 0.5	NS	NS
MW-03D	3/13/2001	40-50	traditional	< 3.6	970	< 3.6	< 3.6	60	< 3.6	< 3.6	4.3	< 3.6	< 3.6	NS	NS	NS	NS	NS
MW-03D Field Duplicate	3/13/2001	40-50	traditional	< 5	1,000#	< 5	< 5	61#	< 5	< 5	< 5	< 5	< 5	NS	NS	NS	NS	NS
MW-03D	6/27/2001	40-50	traditional	5.6	1400	< 5	< 5	69	< 5	< 5	5	< 5	< 5	< 5	< 5	< 5	NS	< 5
MW-03D	9/19/2001	40-50	traditional	< 1.7	480	< 2.6	< 1.7	32	< 1.7	< 1.7	2.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	NS	< 1.7
MW-03D	9/19/2001	44-45.2	passive	< 5	1100	< 5	< 5	54	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	< 5
MW-03D	12/19/2001	44-45.2	passive	< 4.2	1100	< 4.2	< 4.2	42	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	< 4.2	NS	< 4.2
MW-03D	3/20/2002	44-45.2	passive	< 3.6	1300	< 4.3	< 3.6	50	< 3.6	< 3.6	4	< 3.6	< 3.6	< 3.6	< 3.6	< 3.6	NS	< 3.6
MW-03D	9/24/2002	44-45.2	passive	< 50	1300	< 50	< 50	93	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-03D	11/14/2002	44-45.2	passive	< 50	1400	< 50	< 50	81	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-03D Field Duplicate	11/14/2002	44-45.2	passive	< 50	1400	< 50	< 50	79	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
MW-03D	2/19/2003	44-45.2	passive	< 25	1100	< 4.5	< 25	74	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50
MW-03D Field Duplicate	2/19/2003	44-45.2	passive	< 25	1100	< 5.3	< 25	77	< 25	< 25	4	< 25	< 25	< 25	< 25	< 25	< 25	< 50
MW-03D	5/6/2003	44-45.2	passive	< 25	1200	< 3.3	< 64	85	< 25	< 25	4.2	< 25	< 25	< 25	< 25	< 25	< 25	< 50
MW-03D	7/22/2003	44-45.2	passive	< 50	1,200#	< 50	< 50	96#	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-10B (previously MW-03D)	10/24/2003	44-45.2	passive	< 50	1300	< 50	< 50	94	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-10B	3/10/2004	44-45.2	passive	< 50	1410	< 50	< 50	68.6	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	
MW-10B	4/26/2004	40-50	traditional	< 5	150	< 5	< 5	8.1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
MW-10B Field Duplicate	4/26/2004	40-50	traditional	< 5	160	< 5	< 5	8.8	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
MW-10B	9/15/2004	40-50	traditional	< 2.5	120	< 0.55	< 2.5	8.4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5
MW-10B	12/15/2004	42.8-44	passive	< 20	1500	< 7.2	< 20	99	< 20	< 20	5.2	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-10B (DIFF)	2/16/2005	43.2-44.4	passive	< 50	1100	< 50	< 50	61	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-10B	6/8/2005	44.2-45.4	passive	< 50	1200	< 50	< 50	80	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-10B	9/14/2005	44.3-45.5	passive	< 20	1430	< 20	< 20	89.2	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
MW-10B	11/16/2005	44.4-45.6	passive	< 100	1400	< 100	< 100	100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-10B	1/27/2006	44.5-45.7	passive	< 20	1600	< 7	< 20	110	< 20	< 20	5	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-10B	4/4/2006	44.8-46.1	passive	< 50	1700	< 8.7	< 50	110	< 50	< 50	6	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-10B	7/10/2006	44.4-46.6	passive	< 50	1300	< 8.8	< 50	100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-10B	10/18/2006	44.2-45.5	passive	< 5	980	< 5.3	< 5	52	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-10B	2/13/2007	44.4-45.6	passive	< 5	1500	< 6.3	< 5	94	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
MW-10B	9/18/2007	44.3-45.5	passive	< 10	1100	< 10	< 10	62	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-10B	1/29/2008	44.6-45.8	passive	< 10	1400	< 10	< 10	68	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20
MW-10B	1/20/2009	45.0-46.2	passive	< 20	1080	< 6.7	< 20	60.1	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
MW-10B	7/23/2009	45.0-46.2																

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-10B	1/23/2014	44.50-45.70	passive	0.85	760	6.7	0.63	47	< 0.5	< 0.5	2.8	1.3	0.44 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-10B	1/15/2015	44.60-45.80	passive	< 5	750	6.3	< 5	39	< 5	< 5	2.7 J	< 5	< 5	< 5	< 5	< 5	< 15	< 5
MW-10B	1/27/2016	44.34-45.54	passive	5.28	841	6.9	0.54	35.3	< 0.5	< 0.5	2.4	1.1	0.44 J	< 0.5	< 0.5	< 0.5	< 1.5	0.27
MW-10B	3/1/2017	44.10-44.30	passive	1.1	544	9.87	0.678	38	0.495 J	< 0.5	2.25	< 0.5	0.324 J	< 0.5	< 1	< 0.5	< 1.5	0.916
MW-11B	10/10/2003	40-50	traditional	4.66	7860 D	68.3	3.29	470 D	< 1	6.49	7.97	6.5	1.41	< 1	1.74	< 1	NS	< 1
MW-11B	11/4/2003	50-53.5	passive	< 200	3700	< 200	< 200	230	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 400
MW-11B	3/11/2004	45-48.5	passive	< 200	9950	188 J	< 200	582	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	NS	< 200
MW-11B	4/27/2004	40-50	traditional	< 300	11000	380	< 300	670	< 300	< 300	< 300	< 300	< 300	< 300	< 300	< 300	< 300	< 600
MW-11B	9/15/2004	40-50	traditional	< 50 UJ	3300 J	640 J	< 50 UJ	330 J	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 50 UJ	< 100
MW-11B	12/17/2004	40-50	traditional	< 50	600	3100	< 50	190	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-11B	12/30/2004	40-50	traditional	< 100	31	5500	< 100	320	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-11B	2/15/2005	40-50	traditional	< 500	7600	530	< 500	450	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 1000
MW-11B	6/7/2005	42.1-45.6	passive	< 20	< 20	610	< 20	73	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40
MW-11B	9/14/2005	45-48.5	passive	< 10	33.7	387	< 10	32.3	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
MW-11B	11/16/2005	40-50	traditional	< 1000	19000	1800	< 1000	1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 2000
MW-11B	11/16/2005	37.4-40.9	passive	< 100	140	1300	< 100	66	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-11B	11/16/2005	41-44.5	passive	< 50	63	960	< 50	62	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-11B	11/16/2005	45-48.5	passive	< 50	45	620	< 50	39	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-11B	1/27/2006	40-50	traditional	< 500	22000	2500	< 500	1300	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 1000
MW-11B	3/1/2006	40-50	traditional	15	22000	1500 Q	11	1200	8.1	15	20	16	3.5	0.19 J	2.7	0.34 J	1.2	< 2
MW-11B	4/3/2006	40-50	traditional	< 500	24000	1300	< 500	1400	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 1000
MW-11B	7/10/2006	40-50	traditional	< 500	15000	670	< 500	1100	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 500	< 1000
MW-11B	10/18/2006	40-50	traditional	10 D	14000 D	560 D	6.8 D	570 D	6.7 D	5 D	120 D	9.6 D	5 D	5 D	5 D	5 D	5 D	5 D
MW-11B	2/16/2007	40-50	traditional	< 50	8100	300	< 50	520	< 50	< 50	< 50	< 50	< 50	< 50	85	< 50	< 100	< 50
MW-11B	7/18/2007	40-50	traditional	< 50	2000	260	< 50	120	11 J	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-11B	2/14/2008	40-50	low-flow	< 120	13000	1200	< 120	780	< 120	< 120	< 120	< 120	< 120	< 120	< 120	< 120	< 120	< 250
MW-11B	4/24/2008	40-50	low-flow	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	5.6	7.4	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
MW-11B	6/10/2008	40-50	low-flow	< 5	480	570	< 5	36	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10
MW-11B	8/5/2008	40-50	low-flow	< 25	3000	2100	< 25	230	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 50
MW-11B DUP	8/5/2008	40-50	low-flow	< 25	3100	2100	< 25	210	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 50
MW-11B	10/16/2008	40-50	low-flow	< 20	982	1210	7.7 J	65.3	235	6.1 J	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20
MW-11B	12/8/2008	40-50	low-flow	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-11B	2/12/2009	40-50	low-flow	< 4	< 4	< 4	< 4	< 4	2.4	1.6 J	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4
MW-11B*	3/25/2009	40-50	low-flow	< 4	219	60.8	< 4	8.3	2.3 J	1.7 J	< 4	< 4	< 4	< 4	< 4	< 4	< 8	< 4
MW-11B	5/7/2009	40-50	low-flow	< 10	568	243	< 10	27.7	< 10	3 J	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-11B	7/28/2009	40-50	low-flow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-11B	10/12/2009	40-50	low-flow	< 10	286	211	< 10	20.4	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
MW-11B	1/27/2010	40-50	low-flow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-11B	3/29/2010	40-50	low-flow	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-11B	7/21/2010	40-50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-11B	9/27/2010	40-50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MW-11B	2/2/2011	40-50	traditional	< 0.5	56	24	< 0.5	2.9	1.2	0.53	0.34	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	7/27/2011	40-50	traditional	0.58	160	48	0.46 J	9.9	4.3	0.54	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B DUP	7/27/2011	40-50	traditional	0.38 J	150	65	0.62	12	2.5	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	1/25/2012	40-50	traditional	1.2	260	66 V3	0.6 V3	16 V3	8.8 V3	0.45 JV3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	7/25/2012	40-50	traditional	6.6	180	86	0.6	9.4	9.3	0.47 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	1/30/2013	40-50	traditional	< 0.5	9.9	130	1.9	0.82	92	< 0.5	< 0.5	< 0.5	0.52	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	7/24/2013	40-50	traditional	0.37	71	100	1.6	3.8	46	< 0.5	0.46	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	1/23/2014	40-50	traditional	< 0.5	2.4	82	1.9	0.7	67	< 0.5	0.38 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	7/29/2014	40-50	traditional	0.47 J	130	60	0.46 J	5.6	6.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	1/15/2015	40-50	traditional	0.27 J	72	28	< 0.5	3.2	4.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	8/6/2015	40-50	traditional	< 0.5	87.7	59.7	0.573	5.7	8.58	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	2/9/2016	40-50	traditional	0.37 J	96.4	46.2	0.42	4.6	5.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	7/26/2016	40-50	traditional	< 0.5	58.6	52.3	0.375 J	3.1	5.57	< 0.5	0.228 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-11B	3/1/2017	40-50	traditional	0.615	336	63	0.99	18.4	9.59	< 0.5	0.584	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5
MW-12B	10/10/2003	50-60																

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
MW-12B	7/16/2007	50-60	traditional	< 5	110	40	1.0 J	100	2.7 J	< 5	3.3 J	< 5	1.3 J	< 5	< 5	< 5	< 5.0 Q	< 10	
MW-12B	2/14/2008	50-60	low-flow	< 10	19	1200	< 10	91	120	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-12B	4/23/2008	50-60	low-flow	< 2.5	16	330	2.8	39	60	< 2.5	3	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5	
MW-12B	6/10/2008	50-60	low-flow	< 1.7	59	220	2	82	36	< 1.7	4	< 1.7	1.8	< 1.7	< 1.7	< 1.7	< 3.3	< 3.3	
MW-12B	8/6/2008	50-60	low-flow	< 1	27	120	< 1	40	14	< 1	1.5	< 1	< 1	< 1	< 1	< 1	< 2	< 2	
MW-12B	12/8/2008	50-60	low-flow	< 4	28	253	1.5 J	46.2	38.7	< 4	2.7 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-12B	2/12/2009	50-60	low-flow	< 4	34.3	192	1.3 J	45.6	21.6	< 4	2.1 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-12B	3/27/2009	50-60	low-flow	< 2	27	143	0.99 J	35.8	15.3	< 2	1.6 J	0.57 J	0.7 J	< 2	< 2	< 2	< 4	< 2	
MW-12B	7/28/2009	50-60	low-flow	< 2	18.2	96.1	0.84 J	23.4	15	< 2	1.2 J	0.47 J	< 2	< 2	< 2	< 2	< 4	< 2	
MW-12B	10/14/2009	50-60	low-flow	< 2	26.3 J	134 J	1.2 J	32.1 J	13.3 J	< 2	1.5 J	0.72 J	0.66 J	< 2	UJ	< 2	UJ	< 2	UJ
MW-12B	1/26/2010	50-60	low-flow	< 4	31.6	254	3.9 J	41.1	37.4	< 4	2.2 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-12B DUP	1/26/2010	50-60	low-flow	< 4	37.2	187	2.3 J	43.7	26.4	< 4	2 J	< 4	< 4	< 4	< 4	< 4	< 8	< 4	
MW-12B	3/30/2010	50-60	low-flow	< 0.5	3	290	1.9	35	30	< 0.5	2.1	0.92	0.79	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/20/2010	50-60	low-flow	< 0.5	22	750	4.2	68	43	< 0.5	4.9	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	9/27/2010	50-60	low-flow	< 0.5	5.3	420	2.4	44	36	0.37 J	8.5	1.1	0.44 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B DUP	9/27/2010	50-60	low-flow	< 0.5	7.2	420	2.6	45	36	< 0.5	2.9	1.5	1.2	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	2/2/2011	50-60	traditional	< 0.5	52	110	0.95	32	8.7	< 0.5	1.6	0.81	0.62	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/26/2011	54.21-57.71	passive	< 0.5	0.85	3.8	< 0.5	2.1	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	1/25/2012	54.40-57.90	passive	< 0.5	1.1	3.4	< 0.5	1.3	3.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/24/2012	54.21-55.41	passive	< 0.5	1.2	4.3	< 0.5	1.4	3.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	0.38 J	
MW-12B	1/29/2013	54.50-55.70	passive	< 0.5	1.6	4.9	< 0.5	1.4	3.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/23/2013	54.70-55.90	passive	< 0.5	1	5.9	< 0.5	1.4	4.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	1/21/2014	54.70-55.90	passive	< 0.5	1.3	6.6	< 0.5	1.1	5.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/29/2014	54.70-55.90	passive	< 0.5	0.44 J	4.7	< 0.5	0.33 J	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	1/14/2015	54.95-56.15	passive	< 0.5	0.97	5.6	< 0.5	0.58 J	7.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/28/2015	54.50-55.70	passive	< 0.5	4.9	40.9	3.05	15	74.2	< 0.5	1.66	0.832	0.632	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	1/27/2016	54.50-58.00	passive	< 0.5	0.68	94	1.98	0.69	177	< 0.5	1.6	0.65	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	7/26/2016	54.40 - 55.6	passive	< 0.5	< 0.5	124	2.24	0.618	169	< 0.5	1.62	0.857	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-12B	2/28/2017	54.40-55.60	passive	< 0.5	0.354 J	20.6	1.03	< 0.5	99.2	< 0.5	0.697	0.31 J	0.236 J	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-12B dup	2/28/2017	54.40-55.60	passive	< 0.5	0.345 J	20.8	1.06	< 0.5	101	< 0.5	0.705	0.351 J	0.236 J	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-12B	7/12/2017	54.27-55.37	passive	< 0.5	0.819	121	1.51	1.04	97.8	< 0.5	1.29	0.649	0.346 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-13B	10/10/2003	45-55	traditional	0.873 J	807 D	58.5	1.28	49	< 1	1.01	17.4	3.19	0.886 J	< 1	0.767 J	< 1	NS	< 1	
MW-13B	3/11/2004	50-53.5	passive	< 50	1990	896	< 50	132	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	< 50	
MW-13B	4/22/2004	45-55	traditional	< 100	1900	390	< 100	140	< 100	< 100	21 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-13B	9/15/2004	45-55	traditional	< 25	2200	420	< 25	180	< 25	< 25	28 J	< 25	< 25	< 25	< 25	< 25	< 25	< 50	
MW-13B	12/17/2004	45-55	traditional	< 100	4400	1400	< 100	330	< 100	< 100	82 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-13B	2/15/2005	45-55	traditional	< 100	2100	280	< 100	90 J	< 100	< 100	16 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-13B	6/7/2005	49.2-52.7	passive	< 100	5900	300	< 100	300	< 100	< 100	37 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-13B	9/13/2005	49.4-52.9	passive	< 20	5440	270	< 20	273	< 20	< 20	29.2	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-13B	11/17/2005	49.4-52.9	passive	< 200	5600	250	< 200	210	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 400	
MW-13B	1/27/2006	45-55	traditional	< 20	960	73	< 20	43	< 20	< 20	9.2 J	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-13B	3/2/2006	45-55	traditional	6.1	2000	140	Q	NS	3.3	1.4	17	2.9	0.91 J	< 1	< 1	< 1	< 1	< 2	
MW-13B	4/4/2006	48.1-51.6	passive	< 100	6300	510	< 100	320	< 100	< 100	44 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-13B	7/10/2006	38.8-42.3	passive	< 50	400	1400	< 50	96	< 50	< 50	16 J	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-13B	9/12/2006	48.1-51.6	passive	17 J	3600	290	E, J	180	E, J	< 0.5	31 J	6.1 J	1.6 J	< 0.5	UJ	< 0.5	UJ	< 0.5	UJ
MW-13B	10/18/2006	47.4-50.9	passive	23# D	3900# D	290	D	160	D	< 1	28 D	4.3 D	1.3 D	< 1	D	< 1	D	< 1	D
MW-13B	2/16/2007	48.0-51.5	passive	19	5000	200	< 10	260	< 10	< 10	30	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-13B	7/18/2007	45.4-48.9	passive	< 50	1600	2100	6.1 J	150	< 50	< 50	27 J	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-13B	2/14/2008	45-55	low-flow	< 8.4	76	920	< 8.4	< 8.4	150	< < 8.4	11	< < 8.4	< < 8.4	< < 8.4	< < 8.4	< < 8.4	< < 8.4	< 17	
MW-13B	4/23/2008	45-55	low-flow	< 10	2100	400	< 10	86	20	< 10	21	< 10	< 10	< 10	< 10	< 10	< 20	< 20	
MW-13B	6/9/2008	45-55	low-flow	< 12	1300	250	< 12	63	28	< 12	17	< 12	< 12	< 12	< 12	< 12	< 25	< 25	
MW-13B	8/5/2008	45-55	low-flow	< 10	1800	170	< 10	64	< 10	< 10	16	< 10	< 10	< 10	< 10	< 10	< 20	< 20	
MW-13B	10/15/2008	45-55	low-flow	< 20	1450	179	< 20	54.7	< 20	< 20	11 J	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-13B	12/8/2008	45-55	low-flow	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.5	< 1	< 1	0.41 J	< 1	< 1	< 2	< 1	
MW-13B	2/11/2009	45-55	low-flow	< 2	48	128	<												

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 Volatile Organic Compounds Detected in Groundwater Samples
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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-13B	7/29/2014	48.54-49.74	passive	< 25	1600	170	< 25	41	16 J	< 25	9 J	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-13B	1/15/2015	48.34-49.54	passive	< 25	1400	110	< 25	42	16 J	< 25	6.9 J	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-13B	7/28/2015	48.50-49.70	passive	< 25	1240	132	< 25	42.3	16.6 J	< 25	6.01 J	< 25	< 25	< 25	< 25	< 25	< 75	< 5.1	
MW-13B	1/27/2016	48.26-51.76	passive	< 25	1120	17	< 25	30.5	10.9 J	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-13B	7/26/2016	48.35 - 49.55	passive	5.58	755	126	1.8	16.7	12	< 25	3.26	0.726	< 25	< 25	< 25	< 25	< 75	< 25	
MW-13B	3/1/2017	48.35-49.55	passive	< 0.5	6.44	1.55	< 0.5	< 0.5	0.27 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-13B	7/12/2017	48.23-49.33	passive	4.87	456	121	1.61	18.6	16.7	< 0.5	3.02	0.640	0.183 J	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-14B	3/11/2004	43-44.2	passive	< 100	2270	< 100	< 100	158	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS	< 100	
MW-14B	4/28/2004	40-50	traditional	< 50	780	< 50	< 50	48 J	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-14B	9/16/2004	40-50	traditional	< 25	1100	< 25	< 25	100	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	
MW-14B	12/15/2004	40-50	traditional	< 10	670	130	2.4 J	55	< 10	< 10	3.1 J	< 10	< 10	2 J	< 10	< 10	< 10	< 20	
MW-14B	2/16/2005	40-50	traditional	< 100	2200	< 100	< 100	120	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-14B (DIFF)	2/16/2005	41.7-42.9	passive	< 100	2700	23 J	< 100	180	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-14B	6/7/2005	40.7-41.9	passive	< 50	1200	51	< 50	96	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-14B Field Duplicate	6/7/2005	40.7-41.9	passive	< 50	1200	45 J	< 50	100	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-14B	9/14/2005	42.2-43.4	passive	< 50	3330	< 50	< 50	252	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50	
MW-14B	11/17/2005	42.2-43.4	passive	< 200	3700	< 200	< 200	250	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 400	
MW-14B	1/27/2006	42.5-43.7	passive	< 100	5600	< 100	< 100	370	< 100	< 100	12 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-14B	2/28/2006	40-50	traditional	1.2	2500	8.8	1.5	140 Q	< 1	< 1	5.4 J	3.7	1.6	0.2 J	< 1	< 1	< 1	< 2	
MW-14B	3/13/2006	40-50	traditional	< 100	3600	10 J	< 100	230	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-14B	4/4/2006	42.6-43.9	passive	< 100	4500	20 J	< 100	360	< 100	< 100	13 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-14B Field Duplicate	4/4/2006	42.6-43.9	passive	< 100	5100	16 J	< 100	360	< 100	< 100	15 J	< 100	< 100	< 100	< 100	< 100	< 100	< 200	
MW-14B	7/10/2006	43.0-44.2	passive	< 50	3000	11 J	< 50	260	< 50	< 50	9.2 J	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-14B	10/18/2006	42.8-44.1	passive	1.5	1900 D	7.7	1.6	150	< 0.5	< 0.5	6.4	3.5	1.7	0.5	< 0.5	< 0.5	< 1	< 0.5	
MW-14B	2/15/2007	42.8-44.1	passive	< 10	2100	< 10	< 10	140	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-14B	7/18/2007	42.8-44.1	passive	< 50	2400	< 50	< 50	150	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-14B	1/30/2008	42.9-44.1	passive	< 20	2600	< 20	< 20	140	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-14B	8/7/2008	42.8-44	passive	< 20	2600	< 20	< 20	160	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-14B	1/19/2009	43.4-44.6	passive	< 50	2420	< 50	< 50	160	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50	
MW-14B	7/23/2009	43.4-44.6	traditional	< 40	2670	12.0 J	< 40	172	< 40	< 40	< 40	< 40	< 40	< 40	< 40	< 40	< 80	< 40	
MW-14B	1/27/2010	43.4-44.6	passive	< 50	2870	37.7 J	< 50	177	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50	
MW-14B DUP	1/27/2010	43.4-44.6	passive	< 50	2720	36.8 J	< 50	170	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	< 50	
MW-14B	7/21/2010	43-44.2	passive	< 50	1900	< 50	< 50	97	< 50	< 50	< 50	< 50	< 50	< 50	< 250	< 50	< 150	< 50	
MW-14B	2/2/2011	43.02-44.22	passive	1.6	2400	32	2.1	140	5.6	< 0.5	6.2	4	1.6	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-14B	7/27/2011	41.90-43.10	passive	< 0.5	610	1400	12	220	94	< 0.5	8.4	3.7	2.2	0.35 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-14B	1/25/2012	41.80-43.00	passive	< 5	560	1700	13	150	170	< 5	9.2	4 J	2.8 J	< 5	< 5	< 5	< 1.5	< 5	
MW-14B	7/24/2012	42.16-43.36	passive	< 0.5	2600	59	2.4	140	3.6	< 0.5	6.1	3.5	1.6	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-14B	1/30/2013	42.40-43.60	passive	< 13	2300	84	< 13	120	< 13	< 13	4.4 J	< 13	< 13	< 13	< 13	< 13	< 38	< 13	
MW-14B	7/24/2013	42.93-44.13	passive	1.1	2300	26	1.8	120	3.1	< 0.5	5.6	3.6	1.3	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-14B	1/23/2014	42.37-43.57	passive	1.5	2500	92	3.6	190	12	< 0.5	8.1	4.9	1.9	0.36 J	< 0.5	< 0.5	< 1.5	< 0.5	
MW-14B	7/29/2014	42.59-43.79	passive	< 25	3000	52	< 25	180	6.9 J	< 25	8.2 J	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-14B	1/15/2015	42.56-43.76	passive	< 25	2900	44	< 25	180	< 25	< 25	7.7 J	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-14B	7/29/2015	42.16-43.36	passive	< 25	2910	43.7	< 25	254	< 25	< 25	8.08 J	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-14B	1/27/2016	42.16-43.36	passive	30	3580	72.6	< 25	219	12.5 J	< 25	9.1	< 25	< 25	< 25	< 25	< 25	< 75	< 25	
MW-14B DUP	1/27/2016	42.16-43.36	passive	< 5	3250	69	3.57 J	207	11.8	< 5	9.26	4.4 J	< 5	< 5	< 5	< 5	< 15	< 5	
MW-14B	7/26/2016	42.45 - 43.65	passive	1.48 J+	3340 J+	55.8 J+	3.36 J+	168 J+	7.9 J+	< 5 J+	7.68 J+	4.95 J+	1.87 J+	0.321 J+	< 5 J+	< 5 J+	< 15 J+	0.132 J+	
MW-14B	3/1/2017	41.88-43.08	passive	1.76	2080	52.9	1.87	107	1.5	< 0.5	4.39	3.01	0.976	< 0.5	< 1	< 0.5	< 1.5	0.132 J	
MW-14B	7/12/2017	42.08-43.18	passive	1.35	1,840	63.3	2.46	117	2.25	< 0.5	6.01	2.88	1.17	0.232 J	< 0.5	< 0.5	< 1.5	0.113 J	
MW-15B	3/10/2004	54-55.2	passive	< 20	627	< 20	< 20	57.3	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	< 20	
MW-15B	4/23/2004	49-59	traditional	< 50	1400	< 50	< 50	92	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-15B	9/16/2004	49-59	traditional	< 20	880	53	< 20	74	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-15B	12/15/2004	49-59	traditional	< 50	2200	210	< 50	190	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-15B	2/14/2005	49-59	traditional	< 50	1300	120	< 50	93	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-15B (DIFF)	2/14/2005	51.3-52.5	passive	< 50	1300	310	< 50	99</											

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Sample Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-15B	1/29/2008	50.9-52.1	passive	< 10	1600	84	< 10	83	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-15B DUP	1/29/2008	50.9-52.1	passive	< 10	1600	82	< 10	86	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-15B	8/6/2008	50.7-51.9	passive	< 10	1400	54	< 10	81	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 20	
MW-15B	1/19/2009	51.4-52.4	passive	< 20	1390	33.2	< 20	85	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15B	7/23/2009	51.4-52.4	passive	< 20	1290	21.4	< 20	81.8	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15B	1/27/2010	51.4-52.4	passive	< 20	1330	16.1	J < 20	69.8	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-15B	7/20/2010	50.9-52.1	passive	< 13	1200	12	J < 1.5	67	< 0.5	< 0.5	5.2	1.8	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3 < 0.5	
MW-15B	2/2/2011	51.05-52.25	passive	1	1200	10	1.1	58	< 0.5	< 0.5	3.8	1.8	0.78	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B DUP	2/2/2011	51.05-52.25	passive	0.86	1200	9.3	1	50	< 0.5	< 0.5	3.3	1.6	0.72	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B	7/27/2011	51.00-52.20	passive	0.86	1300	9.5	1.2	85	< 0.5	< 0.5	3.8	1.6	0.81	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B	1/24/2012	50.86-52.06	passive	0.98	1200	7.8	0.94	53	< 0.5	< 0.5	3	1.4	0.69	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B	7/24/2012	50.86-52.06	passive	0.7	1200	7.5	1.1	53	< 0.5	< 0.5	3.1	1.3	0.71	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B	1/30/2013	50.80-52.00	passive	< 5	1200	7.8	< 5	55	< 5	< 5	2.9	J < 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-15B	7/24/2013	50.88-52.08	passive	0.69	1000	7.4	< 0.87	54	< 0.5	< 0.5	3.2	1.4	0.63	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B dup	7/24/2013	50.80-52.00	passive	0.75	1000	6.2	0.73	37	< 0.5	< 0.5	2.7	1.3	0.55	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B	1/23/2014	50.70-51.90	passive	1	880	7.9	0.88	60	< 0.5	< 0.5	3.2	1.4	0.58	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B	1/15/2015	50.91-52.11	passive	< 5	1000	8.2	< 5	60	< 5	< 5	3.2	J < 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-15B	1/27/2016	50.36-52.56	passive	0.98	960	8.1	0.86	46.3	< 0.5	< 0.5	2.9	1.3	0.61	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-15B DUP	1/27/2016	50.36-52.56	passive	6.72	1000	8.43	< 5	58.9	< 5	< 5	3.61	J < 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-15B	3/1/2017	50.44-51.64	passive	1.19	912	40.3	1.06	56.5	0.578	< 0.5	2.91	1.46	0.562	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-15B dup	3/1/2017	50.44-51.64	passive	1.16	745	36.8	1.05	58.6	0.516	< 0.5	2.89	1.49	0.556	0.135	J < 1	< 0.5	< 1.5	< 0.5	
MW-16B	3/10/2004	40-41.2	passive	< 20	739	30.1	< 20	15.5	J < 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	< 20	
MW-16B	4/26/2004	35-45	traditional	< 10	550	24	< 10	11	< 10	8.5	J < 3.1	J < 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-16B	9/16/2004	35-45	traditional	< 5	170	9.5	< 5	2.4	J < 5	24	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-16B Field Duplicate	9/16/2004	35-45	traditional	< 2.5	140	8	< 2.5	1.7	J < 2.5	20	0.56	J < 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	
MW-16B	12/15/2004	35-45	traditional	< 5	270	15	< 5	4.7	J < 5	22	1.4	J < 5	< 5	< 5	< 5	< 5	< 5	< 10	
MW-16B	2/17/2005	35-45	traditional	< 20	760	22	< 20	13	J < 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-16B	2/17/2005	34.2-35.4	passive	< 20	560	22	< 20	9.9	J < 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-16B	6/8/2005	37.5-38.7	passive	< 25	940	21	J < 25	31	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	
MW-16B	9/14/2005	37.8-39	passive	< 10	1090	24.4	J < 10	38.1	J < 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-16B	11/17/2005	37.8-39	passive	< 50	1300	24	J < 50	53	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100	
MW-16B	1/27/2006	38.1-39.3	passive	< 20	930	24	< 20	15	J < 20	< 20	2.2	J < 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-16B	3/2/2006	35-45	traditional	< 20	1100	36	2.4	28	< 20	< 20	3.6	J < 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-16B	4/4/2006	38.1-39.4	passive	< 20	790	20	< 20	12	J < 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-16B	7/10/2006	37.5-38.7	passive	< 20	1200	32	2.4	43	< 20	< 20	3.1	J < 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-16B	10/18/2006	38.3-39.6	passive	< 5	800	20	D < 5	18	D < 5	D < 5	D < 5	D < 5	D < 5	D < 5	D < 5	D < 5	D < 10	D < 5	
MW-16B Field Duplicate	10/18/2006	38.3-39.6	passive	< 5	770	19	D < 5	21	D < 5	D < 5	D < 5	D < 5	D < 5	D < 5	D < 5	D < 5	D < 10	D < 5	
MW-16B	2/14/2007	37.3-38.6	passive	< 5	1100	26	< 5	41	< 5	< 5	< 5	< 5	< 5	< 5	12	B < 5	< 10	< 5	
MW-16B	7/17/2007	37.9-39.1	passive	< 25	1100	22	J < 25	33	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	
MW-16B	1/29/2008	37.9-39.1	passive	< 6.2	890	21	< 6.2	25	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 6.2	< 12	
MW-16B	8/6/2008	37.9-39.1	passive	< 5	790	20	< 5	23	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	
MW-16B DUP	8/6/2008	37.9-39.1	passive	< 5	920	22	< 5	26	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10	
MW-16B	1/19/2009	38.3-39.5	passive	< 13	819	18.8	< 13	24.5	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 25	< 13	
MW-16B	7/23/2009	38.3-39.5	passive	< 10	713	17.5	< 10	22.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-16B	1/27/2010	38.3-39.5	passive	< 13	681	16.8	< 13	19.7	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 13	< 25	< 13	
MW-16B	7/20/2010	37.5-38.7	passive	1.1	700	21	1.7	30	0.37	J < 0.5	2.6	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3 < 0.5	
MW-16B	2/1/2011	38.04-39.24	passive	0.76	660	14	2.1	8.9	< 0.5	< 0.5	1.8	0.87	0.36	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-16B	7/27/2011	37.90-39.10	passive	0.85	690	18	1.5	33	< 0.5	< 0.5	2.2	0.92	0.42	J < 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-16B dup	7/27/2011	37.90-39.10	passive	0.77	680	18	1.4	32	< 0.5	< 0.5	2.1	0.86	0.42	J < 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-16B	1/24/2012	37.96-39.16	passive	< 5	600	16	< 5	20	< 5	< 5	1.7	J < 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-16B	7/24/2012	37.88-39.08	passive	0.64	630	13	1	15	< 0.5	< 0.5	1.4	0.69	0.32	J < 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-16B	1/30/2013	37.62-38.82	passive	< 2.5	540	12	< 2.5	13	< 2.5	< 2.5	0.99	J < 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-16B	7/24/2013	37.62-38.82	passive	0.64	500	11	1	9.1	< 0.5	< 0.5	1.1	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-16B dup	7/24/2013	37.62-38.82	passive	0.61	480	12	0.91	14	< 0.5	< 0.5	1.2	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-16B	1/23/2014	37.95																	

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 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-19B	1/24/2006	32.5-33.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19B	4/5/2006	32.5-33.8	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19B	7/6/2006	32.4-33.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19B	10/16/2006	32.3-33.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-19B	2/13/2007	32.3-33.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.66	B, U	< 0.5	< 1
MW-19B	7/17/2007	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19B	1/28/2008	32.1-33.3	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-19B	8/5/2008	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19B	1/14/2009	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19B DUP	1/14/2009	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19B	7/21/2009	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19B DUP	7/21/2009	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19B	1/26/2010	32.1-33.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19B	7/20/2010	32.1-33.3	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	J4	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19B	2/1/2011	32.56-33.76	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19B	1/23/2012	31.80-33.00	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19B	1/30/2013	31.84-33.04	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19B	1/21/2014	31.86-33.06	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19B	1/26/2016	31.70-32.90	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-20B	3/10/2004	35-36.2	passive	507	347	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	< 20
MW-20B	4/22/2004	30.5-40.5	traditional	7200	570	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 400
MW-20B	9/14/2004	30.5-40.5	traditional	1600	310	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-20B	12/16/2004	30.5-40.5	traditional	4500	440	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 500
MW-20B	2/17/2005	30.5-40.5	traditional	5500	860	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-20B	6/7/2005	32.1-33.3	passive	780	460	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 250	< 500
MW-20B	9/14/2005	32-33.2	passive	29.3	59.2	< 20	< 20	< 20	113	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20
MW-20B	9/14/2005	35-36.2	passive	313	253	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20
MW-20B	9/14/2005	38-39.2	passive	829	515	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20
MW-20B	11/16/2005	38-39.2	passive	1000	480	2800	25 J	< 100	84 J	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-20B Field Duplicate	11/16/2005	38-39.2	passive	970	480	2700	21 J	< 100	77 J	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-20B	1/27/2006	38-39.2	passive	1500	900	1100	13 J	< 50	31 J	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-20B	2/27/2006	30.5-40.5	traditional	4900	700	290	5.1 Q	1.6	7.8	< 1	< 1	< 1	< 1	0.24 J	< 1	< 1	< 1	< 2
MW-20B	4/4/2006	37.9-39.2	passive	< 200	63 J	5200 Q	22 J	< 200	100 J	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 400
MW-20B	7/10/2006	30.5-40.5	traditional	4700	650	< 100	< 100	< 100	26 J	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 200
MW-20B	10/18/2006	30.5-40.5	traditional	2700 D	410 D	240	4.8 D	0.97	26	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-20B	2/15/2007	30.5-40.5	traditional	3100	400	120	< 12	< 12	32	< 12	< 12	< 12	< 12	< 12	< 12	< 12	< 25	< 12
MW-20B	7/18/2007	30.5-40.5	traditional	3100	430	160	7.8 J	< 50	24 J	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
MW-20B	1/30/2008	30.5-40.5	traditional	3400	500	210	< 25	< 25	45	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50
MW-20B	8/8/2008	30.5-40.5	traditional	4600	620	270	< 25	< 25	34	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50
MW-20B	1/21/2009	30.5-40.5	traditional	2330	322	267	< 33	< 33	36.9	< 33	< 33	< 33	< 33	< 33	< 33	< 33	< 67	< 33
MW-20B	7/24/2009	30.5-40.5	traditional	2230	358	160	< 40	< 40	40	< 40	< 40	< 40	< 40	< 40	< 40	< 40	< 80	< 40
MW-20B	1/27/2010	30.5-40.5	traditional	1850	318	134	< 40	< 40	40	< 40	< 40	< 40	< 40	< 40	< 40	< 40	< 80	< 40
MW-20B	7/21/2010	30.5-40.5	traditional	1800	290	170	6	0.96	5.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J4J3
MW-20B	2/2/2011	30.5-40.5	traditional	2100	320	63	4.1	0.58	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-20B	7/26/2011	30.5-40.5	traditional	930	180	120	3.5	0.72	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-20B	1/25/2012	30.5-40.5	traditional	1700	300	33	3	< 5	2.7	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5
MW-20B	7/25/2012	30.5-40.5	traditional	2000	420	43	3.4	0.44 J	1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-20B	1/3/2013	30.5-40.5	traditional	2000	370	48	< 10	< 10	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 30	< 10
MW-20B	7/24/2013	30.5-40.5	traditional	1400	340	27	2.6	0.36 J	0.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-20B	1/23/2014	30.5-40.5	traditional	580	180	68	3	0.38 J	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-20B	1/15/2015	30.5-40.5	traditional	1100	330	22	2.4 J	< 5	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5
MW-20B	1/27/2016	30.5-40.5	traditional	1240	451	23.3	2.9	< 5	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5
MW-20B DUP	1/27/2016	30.5-40.5	traditional	1250	464	19.1	2.43	0.526	0.913	< 0.5	< 0.5	8.39	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-21B	3/10/2004	35-36.2	passive	498														

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-21B	7/17/2007	36.4-37.7	passive	650	260	310	5.9 J	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-21B	1/29/2008	36.3-37.5	passive	790	220	92	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-21B	8/6/2008	36.5-37.7	passive	840	210	97	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 20	
MW-21B	1/19/2009	37-38.2	passive	1020	120	30.6	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40	< 20	
MW-21B	7/23/2009	37-38.2	passive	442	130	244	6.3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	
MW-21B	1/27/2010	37-38.2	passive	741	114	51.2	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10	
MW-21B	7/20/2010	36.4-37.6	passive	240	76	340	4.5	1.5	2.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3 < 0.5	
MW-21B	2/2/2011	36.45-37.65	passive	680	93	49	2	< 0.5	0.33	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B	7/26/2011	35.62-36.82	passive	450	91	95	2.1	0.46 J	0.65	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B	1/25/2012	35.97-37.17	passive	660	110	49	< 5	< 5	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 15	< 5	
MW-21B	7/24/2012	36.08-37.28	passive	510	110	110	1.7	0.5 J	0.92	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B	1/30/2013	35.90-37.10	passive	540	120	120	1.3 J	< 2.5	2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-21B dup	1/30/2013	35.90-37.10	passive	420	140	170	1.7	0.39 J	0.51	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B	7/24/2013	35.96-37.16	passive	240	65	300	2.8	0.49 J	15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B	1/23/2014	35.90-37.10	passive	230	92	170	2.2	0.78	4.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B-dup	1/23/2014	35.90-37.10	passive	180	85	170	2.4	0.76	4.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-21B	1/15/2015	36.34-37.54	passive	280	110	140	1.5 J	< 2.5	2.4 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	< 2.5	
MW-21B	1/27/2016	35.70-36.90	passive	437	105	74.5	1	0.33 J	0.59	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-22B	3/10/2004	45-46.2	passive	< 1	20.8	3.06	< 1	0.833 J	1	< 1	0.618 J	< 1	0.604 J	< 1	< 1	< 1	NS	1.07	
MW-22B	4/21/2004	40-50	traditional	< 1	18	2.6	< 1	0.95 J	0.19 J	< 1	0.42 J	< 1	0.41 J	0.16 J	< 1	< 1	< 1	11	
MW-22B	9/17/2004	40-50	traditional	< 1	17	3.3	< 1	0.9 J	1	< 1	0.31 J	< 1	0.26 J	0.2 J	< 1	< 1	< 1	7.8	
MW-22B	12/16/2004	40-50	traditional	0.46 J	13	6.9	< 1	0.83 J	1	< 1	0.38 J	< 1	0.36 J	0.26 J	< 1	< 1	< 1	8.9	
MW-22B	2/17/2005	40-50	traditional	< 10	240	9 J	< 10	21	< 10	< 10	1.9 J	< 10	< 10	< 10	< 10	< 10	< 10	< 20	
MW-22B	6/7/2005	45.4-46.6	passive	< 1	17	20	0.21 J	2	3.3	< 1	0.63 J	< 1	0.39 J	< 1	< 1	< 1	< 1	21	
MW-22B	9/14/2005	45.3-46.5	passive	< 1	9.21	9.74	< 1	< 1	1	< 1	1	< 1	< 1	< 1	< 1	< 1	< 2	55.3	
MW-22B	11/15/2005	45.2-46.4	passive	< 2	9.8	9.5	< 2	< 2	0.76 J	< 2	0.5 J	< 2	< 2	< 2	< 2	< 2	< 2	46	
MW-22B	1/25/2006	45.3-46.5	passive	< 20	730	6.5 J	< 20	80	< 20	< 20	4.9 J	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-22B	2/28/2006	40-50	traditional	< 10	480 B	12	< 10	45	< 10	< 10	3.6 J	< 10	< 10	< 10	< 10	< 10	< 10	16 J	
MW-22B	4/3/2006	45.2-46.5	passive	< 20	1000	9.6 J	< 20	110	< 20	< 20	6.1 J	< 20	< 20	< 20	< 20	< 20	< 20	< 40	
MW-22B	7/7/2006	45.0-46.2	passive	< 10	290	24	< 10	35	< 10	< 10	2.7 J	< 10	< 10	< 10	< 10	< 10	< 10	< 25	
MW-22B	10/17/2006	45.1-46.4	passive	0.66	150	30	< 0.5	15	1	< 0.5	1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	120	
MW-22B	2/14/2007	40-50	traditional	< 0.5	300 E	14	< 0.5	33	0.59	< 0.5	2	< 0.5	< 0.5	< 0.5	1	B, U < 0.5	< 1	52	
MW-22B	7/18/2007	40-50	traditional	< 2	110	20	0.38 J	12	6.2	< 2	1.1 J	< 2	< 2	< 2	< 2	< 2	< 2	46	
MW-22B	1/28/2008	40-50	traditional	< 2.5	250	7.8	< 2.5	22	2.6	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	28	
MW-22B	8/7/2008	40-50	traditional	< 0.5	85	7.1	< 0.5	6.7	1.4	< 0.5	0.75	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	32	
MW-22B	1/20/2009	40-50	traditional	< 2	137	10	< 2	12.9	2.4	< 2	1.1 J	< 2	< 2	< 2	< 2	< 2	< 4	32.7	
MW-22B	7/22/2009	40-50	traditional	< 1	50.3	5.6	< 1	4.9	1.4	< 1	0.61 J	< 1	< 1	< 1	< 1	< 1	< 2	19.5	
MW-22B DUP	7/22/2009	40-50	traditional	< 2	129	6.6	< 2	12.4	2	< 2	1.1 J	< 2	< 2	< 2	< 2	< 2	< 4	22.8	
MW-22B	1/27/2010	40-50	traditional	< 2	115	6.5	< 2	9.8	1.4 J	< 2	1.1 J	< 2	< 2	< 2	< 2	< 2	< 4	15.6	
MW-22B	7/21/2010	40-50	traditional	< 5	77	< 5	< 1	12	< 5	< 1	1.4	< 1	< 1	< 1	< 1	< 1	< 3	21	
MW-22B	2/2/2011	40-50	traditional	0.52	120	4.5	< 0.5	9.4	0.9	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3J4 12	
MW-22B	7/26/2011	40-50	traditional	0.31 J	270	7.5	< 0.5	24	< 0.5	< 0.5	2.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	2.1	
MW-22B	1/24/2012	40-50	traditional	< 2.5	110	4.8	< 2.5	8.9	< 2.5	< 2.5	1.1 J	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 7.5	12	
MW-22B	7/24/2012	40-50	traditional	< 0.5	120	4.6	< 0.5	9.1	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	0.38 J	
MW-22B dup	7/24/2012	40-50	traditional	0.35 J	130	4.6	< 0.5	9	< 0.5	< 0.5	1.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	0.44 J	
MW-22B	1/30/2013	40-50	traditional	0.38 J	30	4.2	< 0.5	2.5	1.5	< 0.5	0.52	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	14	
MW-22B	7/24/2013	40-50	traditional	0.31 J	69	3.7	< 0.5	3.6	< 0.5	< 0.5	0.83	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-22B	1/22/2014	40-50	traditional	< 0.5	5.3	11	< 0.5	0.47 J	2.2	< 0.5	0.39 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	13	
MW-22B	1/14/2015	40-50	traditional	1.4	64	3.4	< 0.5	4.6	0.49 J	< 0.5	0.88	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	18	
MW-22B	1/27/2016	40-50	traditional	0.76	66	3.3	< 0.5	4.1	< 0.5	< 0.5	1.1	< 0.5	0.15 J	< 0.5	< 0.5	< 0.5	< 1.5	1.62	
MW-22B	3/1/2017	40-50	traditional	0.836	520	4.62	0.477 J	39.7	0.186 J	< 0.5	3.92	1.13	0.427 J	< 0.5	< 1	< 0.5	< 1.5	0.356 J	
MW-22B dup	3/1/2017	40-50	traditional	0.778	450	4.45	0.473 J	39.4	0.178 J	< 0.5	3.88	1.09	0.407 J	< 0.5	< 1	< 0.5	< 1.5	0.387 J	
MW-23B	6/7/2004	48-58	traditional	< 1	12	0.35 J	< 1	3.6	< 1	< 1	0.18 J	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23B	9/16/2004	48-58	traditional	< 1	37	0.87 J	< 1	11	< 1	< 1	0.42 J	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-23B	12/17/2004	48-58	traditional	< 1	25	1.1	< 1	5.2	< 1	< 1	0.32 J	< 1	< 1	0.17 J	< 1	< 1	< 1	< 2	
MW																			

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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
MW-25B ^h	7/21/2009	52.3-53.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-25B	1/26/2010	52.3-53.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-25B	7/20/2010	51.9-53.1	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	J3	< 0.5
MW-25B	2/1/2011	52.12-53.32	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-25B DUP	2/1/2011	52.12-53.32	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-25B	1/24/2012	52.22-53.42	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-25B DUP	1/24/2012	52.22-53.42	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-25B	1/30/2013	51.97-53.17	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-25B	1/22/2014	52.00-53.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-25B	1/26/2016	51.80-53.00	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-26B	3/10/2004	45-46.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	< 1	
MW-26B	4/28/2004	40-50	traditional	< 1	5.9	0.88	J	< 1	< 1	< 1	< 1	< 1	< 1	1.2	< 1	< 1	< 1	< 2	
MW-26B	9/16/2004	40-50	traditional	< 1	4.6	0.93	J	< 1	< 1	< 1	< 1	< 1	< 1	0.46	J	< 1	< 1	< 2	
MW-26B	12/17/2004	40-50	traditional	0.62	J	2.2	J	< 1	< 1	< 1	< 1	< 1	< 1	0.66	J	< 1	< 1	< 2	
MW-26B	2/17/2005	40-50	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-26B	6/8/2005	42.7-43.9	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-26B	9/14/2005	46.1-47.3	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-26B	11/16/2005	46.2-47.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-26B	1/25/2006	46.4-47.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-26B	4/5/2006	46.7-48.0	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-26B	7/6/2006	46.4-47.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	
MW-26B	10/16/2006	46.2-47.5	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	
MW-26B	2/13/2007	46.2-47.5	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	U	< 0.5	< 1	< 0.5
MW-26B	1/28/2008	46.4-47.6	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	
MW-26B	1/16/2009	46.3-47.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-26B DUP	1/16/2009	46.3-47.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-26B	1/26/2010	46.3-47.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-26B	2/1/2011	46.52-47.72	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-26B	1/24/2012	45.96-47.16	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-26B	1/30/2013	46.00-47.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-26B	1/22/2014	46.10-47.30	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-26B	1/26/2016	45.61-46.81	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B	2/14/2008	49-59	low-flow	< 0.5	4.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	
MW-34B	4/24/2008	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	
MW-34B DUP	4/24/2008	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	
MW-34B	6/9/2008	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	
MW-34B	8/5/2008	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	
MW-34B	12/8/2008	49-59	low-flow	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-34B	2/12/2009	49-59	low-flow	< 1	3.7	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-34B	3/25/2009	49-59	low-flow	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-34B	7/29/2009	49-59	low-flow	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-34B	10/12/2009	49-59	low-flow	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-34B	1/27/2010	49-59	low-flow	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
MW-34B	3/30/2010	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	J	< 0.5	< 1.5	< 0.5
MW-34B	7/21/2010	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	0.4	J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B DUP	7/21/2010	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B	9/27/2010	49-59	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B	2/1/2011	54.21-55.41	passive	< 0.5	0.38	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B	1/24/2012	53.95-55.15	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B DUP	1/24/2012	53.95-55.15	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B	1/29/2013	54.10-55.30	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B dup	1/29/2013	54.10-55.30	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-34B	1/22/2014	54.45-55.65	passive	< 0.5															

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
MW-35B	7/26/2011	54.68-55.88	passive	< 0.5	2	120	2.9	6.7	9.2	< 0.5	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B dup	7/26/2011	54.68-55.88	passive	< 0.5	2.6	120	0.59	8.6	8.3	< 0.5	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	1/24/2012	54.84-56.04	passive	< 0.5	19	13	0.33 J	2.4	2.9	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	7/24/2012	55.07-56.27	passive	< 0.5	3.9	11	< 0.5	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	1/30/2013	55.04-56.24	passive	< 0.5	18	54	2.1	3.8	4.8	< 0.5	0.69	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	7/23/2013	55.23-56.43	passive	< 0.5	1.6	5	0.48 J	0.7	0.42 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	1/22/2014	54.95-56.15	passive	< 0.5	1.6	0.8	< 0.5	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	1/14/2015	55.27-56.47	passive	< 0.5	2.3	< 0.5	< 0.5	0.4 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	1/27/2016	55.50-56.70	passive	< 0.5	0.65	5.2	0.83	0.5 J	1.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	
MW-35B	2/28/2017	55.10-56.30	passive	< 0.5	15.9	5.92	0.945	1.68	< 0.5	< 0.5	1.54 J	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	
MW-36B	2/15/2008	55	low-flow	< 25	3400	21	< 25	210	< 25	< 25	30	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50
MW-36B	4/24/2008	50-60	low-flow	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	< 1
MW-36B	6/10/2008	50-60	low-flow	< 0.5	18	< 0.5	< 0.5	1.8	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	< 1
MW-36B DUP	6/10/2008	50-60	low-flow	< 0.5	20	< 0.5	< 0.5	1.9	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	< 1
MW-36B	8/6/2008	50-60	low-flow	< 0.5	15	< 0.5	< 0.5	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1	< 1
MW-36B	12/9/2008	50-60	low-flow	< 1	23.3	< 1	< 1	3.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B	2/12/2009	50-60	low-flow	< 1	22.8	0.64 J	< 1	2.8	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B	3/26/2009	50-60	low-flow	< 1	18.5	< 1	< 1	2.3	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B	5/7/2009	50-60	low-flow	< 1	21.9	< 1	< 1	2.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B	7/29/2009	50-60	low-flow	< 1	44.1	0.61 J	< 1	4.3	< 1	< 1	0.48 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B DUP	7/29/2009	50-60	low-flow	< 1	48.2	0.59 J	< 1	4.4	< 1	< 1	0.52 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B	10/13/2009	50-60	low-flow	< 1	54.3	0.61 J	< 1	6.7	< 1	< 1	0.57 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1	< 1
MW-36B	1/27/2010	50-60	low-flow	< 1	5.3 J	6.3 J	< 1	1.4 J	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1
MW-36B	3/30/2010	50-60	low-flow	< 0.5	1.4	13	< 0.5	1.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	7/21/2010	50-60	low-flow	< 0.5	20	9	< 0.5	4.1	< 0.5	< 0.5	0.39 J	< 0.5	J4	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B DUP	7/21/2010	50-60	low-flow	< 0.5	20	8.8	< 0.5	4.3	< 0.5	< 0.5	0.46 J	< 0.5	J4	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	9/27/2010	50-60	low-flow	< 0.5	31	0.68	< 0.5	4.1	< 0.5	< 0.5	0.36 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	2/1/2011	55.08-56.28	passive	< 0.5	9.2	1.1	< 0.5	1.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	7/26/2011	55.02-56.22	passive	< 0.5	10	2.1	< 0.5	2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	1/24/2012	55.31-56.51	passive	< 0.5	9.2	1.8	0.53	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	7/25/2012	55.08-56.28	passive	< 0.5	4.7	1.5	2	1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B dup	7/25/2012	55.08-56.28	passive	< 0.5	4.8	1.6	2	1.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	1/29/2013	54.90-56.10	passive	< 0.5	4.4	0.67	1	0.72	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	7/23/2013	55.08-56.28	passive	< 0.5	1.8	1	1.7	0.64	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	1/22/2014	55.10-56.30	passive	< 0.5	2.4	0.71	1.2	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	1/14/2015	55.09-56.29	passive	< 0.5	2.1	0.4 J	0.72	0.56	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	1/27/2016	54.91-56.11	passive	< 0.5	3	0.23 J	0.3 J	0.5 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5	< 0.5
MW-36B	3/1/2017	55.00-56.20	passive	< 0.5	3.68	0.238 J	0.157 J	0.602	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5	< 0.5
C-Zone Monitoring Wells																			
MW-15C	3/10/2004	93-94.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.736 J	< 1	NS	< 1	< 1
MW-15C	4/22/2004	90-95	traditional	< 1	6.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C	9/15/2004	90-95	traditional	< 1	6.2	0.32 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C Field Duplicate	9/15/2004	90-95	traditional	< 1	6.2 J	0.27 JJ	< 1	0.37 JJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 1	UJ	< 2
MW-15C	12/15/2004	90-95	traditional	< 1	0.53 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C	2/14/2005	90-95	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C (DIFF)	2/14/2005	90-91.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C	6/8/2005	92.2-93.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C Field Duplicate	6/8/2005	92.2-93.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C	9/14/2005	92.3-93.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-15C	11/16/2005	92.2-93.4	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C	1/25/2006	92.5-93.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C	4/5/2006	92.5-93.8	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-15C Field Duplicate	4/5/2006	92.5-93.8	passive	< 1	< 1														

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
MW-19C Field Duplicate	4/28/2004	70-80	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	9/17/2004	70-80	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	12/15/2004	70-80	traditional	< 1	1.1	0.25 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	2/14/2005	70-80	traditional	< 1	0.84 J	0.21 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	6/8/2005	74.8-76	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C Field Duplicate	6/8/2005	74.8-76	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	9/14/2005	74.7-75.9	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-19C	11/16/2005	74.5-75.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	1/25/2006	74.8-76	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	4/5/2006	75.4-76.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	7/6/2006	75.0-76.2	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-19C	10/16/2006	75.1-76.4	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-19C	2/13/2007	25.1-26.4	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.7 B, U	< 0.5	< 1	< 0.5
MW-19C	1/28/2008	75.1-76.3	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-19C	1/14/2009	74.8-76	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19C	1/26/2010	74.8-76	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-19C	2/1/2011	74.96-76.16	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19C	01/30/2013	74.72-75.92	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19C	01/13/2015	75.00-76.20	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-19C	02/27/2017	74.65-75.85	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5
MW-23C	6/8/2004	93-103	traditional	< 1	0.68 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	9/16/2004	93-103	traditional	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-23C	1/12/2005	93-103	traditional	< 1	< 1	< 1	< 1	< 1	0.51 J	< 1	< 1	< 1	< 1	0.21 J	< 1	< 1	0.25 J	< 2
MW-23C	2/14/2005	93-103	traditional	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	6/8/2005	97.3-98.5	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	9/14/2005	97.4-98.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-23C	11/17/2005	97.4-98.6	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	1/25/2006	97.7-98.9	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	4/3/2006	97.8-99.1	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	7/7/2006	97.5-98.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2
MW-23C	10/17/2006	99.1-100.4	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5
MW-23C	2/13/2007	97.5-98.8	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2 U	< 0.5	< 1	< 0.5
MW-23C	1/28/2008	97.6-98.8	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1
MW-23C	1/14/2009	97.5-98.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-23C	1/26/2010	97.5-98.7	passive	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
MW-23C	2/1/2011	97.61-98.81	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-23C	01/30/2013	97.56-98.76	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-23C	01/13/2015	97.69-98.89	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.5	< 0.5
MW-23C	02/27/2017	97.10-98.30	passive	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 1.5	< 0.5
ChemOx Injection Wells																		
INJ-1	1/30/2008	36-46	traditional	< 5	450	< 5	< 5	27	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
INJ-1	8/6/2008	36-46	low-flow	< 0.5	9.2	94	< 0.5	5.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 5
INJ-1	3/26/2009	36-46	low-flow	0.37 J	31.5	22.9	< 1	2.5	< 1	< 1	0.35 J	< 1	< 1	< 1	< 1	< 1	< 2	< 1
INJ-2	1/31/2008	36-46	traditional	< 50	8800	450	< 50	290	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 100
INJ-2	6/10/2008	36-46	low-flow	< 5	270	880	6.1	35	< 5	18	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10
INJ-2	8/6/2008	36-46	low-flow	< 5	130	680	< 5	25	9	8	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10
INJ-2	10/16/2008	36-46	low-flow	< 10	137	503	< 10	19.5	17.7	7.1 J	< 10	< 10	< 10	< 10	< 10	< 10	< 20	< 10
INJ-3	1/30/2008	36-46	traditional	< 20	2500	< 20	< 20	150	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 40
INJ-3	6/10/2008	36-46	low-flow	< 2.5	24	310	< 2.5	12	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
INJ-3	8/7/2008	36-46	low-flow	< 2.5	16	360	< 2.5	14	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 5	< 5
INJ-3	3/26/2009	36-46	low-flow	0.33 J	12.1	20.7	< 1	0.65 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1
INJ-4	1/30/2008	36-46	traditional	< 5	810	7.4	< 5	50	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10
INJ-4	8/7/2008	36-46	low-flow	< 5	60	700	< 5	22	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 10
INJ-4	3/26/2009	36-46	low-flow	< 5	28	301	< 5	7.8	< 5	1.8 J	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5
INJ-5	6/10/2008	51-56	low-flow	< 0.5	6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 1
INJ-5	8/6/200																	

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 Volatile Organic Compounds Detected in Groundwater Samples
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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)	
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5	
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
INJ-7	3/26/2009	49-54	low-flow	0.66 J	39.3	4.8	< 1	0.91 J	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2	< 1	
B-50	9/27/2001	24		4.2	1300	72	< 4.2	28	4.2	4.2		4.2		4.2	4.2	4.2			
B-50 (DUP)	9/27/2001	24		4.2	1200	68	< 4.2	28	4.2	4.2		4.2		4.2	4.2	4.2			
B-51	10/3/2001	22		5	1500	87	< 5	32	5	5		5		5	5	5			
B-52	10/3/2001	22		7.1	2000	74	< 7.1	38	7.1	7.1		7.1		7.1	7.1	7.1			
B-52 (DUP)	10/3/2001	22		7.1	2000	73	< 7.1	35	7.1	7.1		7.1		7.1	7.1	7.1			
B-53	10/1/2001	24		5.5	1700	78	< 5	51	5	5		5		5	5	5			
B-54	10/1/2001	24		7.1	2500	90	< 7.1	65	7.1	7.1		7.1		7.1	7.1	7.1			
B-55	10/1/2001	24		1	270	8	< 1	9.8	1	1		1		1	1	1			
B-56	10/1/2001	32		1	63	0.5	< 0.5	6.1	0.5	0.5		0.5		0.5	0.5	0.5			
B-57	9/24/2001	32		0.6	19	0.5	< 0.5	1.1	0.5	0.5		0.5		0.5	0.5	0.5			
B-57 (DUP)	9/24/2001	32		0.6	19	0.5	< 0.5	1	0.5	0.5		0.5		0.5	0.5	0.5			
B-58	9/24/2001	28		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			
Soil Boring HydroPunch Samples (ERM, 2003)																			
B-60	9/18/2003	35		1	20.9	1	< 1	0.643 J	1	1		1		1	1	1			
B-63	9/19/2003	35		100	8860	452	< 100	341	100	100		100		100	100	100			
B-65	10/1/2003	24		0.989 J	391	1.05	< 100	0.701 J	1	1		1		1	1	1			
B-66	9/19/2003	35		1	9.89	1	< 1	0.909 J	1	1		1		1	1	1			
B-66	9/19/2003	55		10	363	10	< 10	57.5	10	10		10		10	10	10			
B-67	9/18/2003	35		100	1710	93 J	< 100	114	100	100		100		100	100	100			
B-67	9/19/2003	55		2 UJ	9.99 J	2 UJ	< 2 UJ	4.24 J	2 UJ	2 UJ		2 UJ		2 UJ	1.33 JJ	2 UJ			
B-68	9/29/2003	55		2	99.5	4.25	< 2	53.6	2	2		2		2	2	2			
B-68	9/30/2003	30		1000	6040	554 J	< 1000	1000	1000	1000		1000		1000	1000	1000			
B-69	9/17/2003	35		1	9.57	1	< 1	1.59	1	1		1		1	1	1			
B-69	9/18/2003	55		1	1	1	< 1	1	1	1		1		1	1	1			
B-70	9/17/2003	55		1	1	1	< 1	1	1	1		1		1	0.528 J	1			
B-70	9/18/2003	30		0.591 J	6.89	1	< 1	1	1	1		1		1	1	1			
B-74	9/18/2003	35		100	2230	230	< 100	60.6 J	100	100		100		100	100	100			
B-74	9/19/2003	55		2	5.01	2	< 2	2.27	2	2		2		2	1.17 J	2			
B-75	9/22/2003	35		2	28.2	2.4	< 2	8.74	2	2		2		2	2	2			
B-75	9/22/2003	55		5	99.8	5	< 5	9.29	5	5		5		5	5	5			
B-77	9/19/2003	35		10	179	10	< 10	32.4	10	10		10		10	10	10			
B-78	9/23/2000	30		2 R	18.1 J	2 R	< 2 R	2 R	2 R	2 R		2 R		2 R	2 R	2 R			
B-79	9/23/2003	30		100	3290 J	210 J	< 100	120 J	100	100		100		100	100	100			
B-80	9/25/2003	35		2	122	3.48	< 2	3	2	2		2		2	2	2			
B-81	9/22/2003	30		100	2890	199	< 100	88 J	100	100		100		100	100	100			
B-81 (DUP)	9/22/2003	30		100	2520 J	165 J	< 100	70 JJ	100	100		100		100	100	100			
B-82	9/22/2003	25		5	125	5	< 5	4.21 J	5	5		5		5	5	5			
B-82	9/22/2003	55		2	2	2	< 2	2	2	2		2		2	2	2			
B-85	9/16/2003	25		100	2580	148	< 100	55.5 J	100	100		100		100	100	100			
B-85 (DUP)	9/16/2003	25		100	2460	138	< 100	65.3 J	100	100		100		100	100	100			
B-87	9/24/2003	55		2	183	1.55 J	< 2	25.1	2	2		2		2	2	2			
B-90	9/16/2003	20		100	644	100	< 100	100	100	100		100		100	100	100			
B-91	10/3/2003	25		2	28.4	2.48	< 2	2	2	2		2		2	2	2			
B-91	10/3/2003	55		2	25.1	1.13 J	< 2	1.32 J	2	2		2		2	2	2			
B-92	9/16/2003	25		100	1360	184	< 100	100	100	100		100		100	100	100			
B-93	10/3/2003	25		20	318	80.4	< 20	10.3 J	20	20		20		20	20	20			
B-94	9/29/2003	25		10	406	11.2	< 10	8.04 J	10	10		10		10	10	10			
B-94	9/29/2003	55		10	380 J	10	< 10	41.2 J	10	10		10		10	10	10			
B-94 (DUP)	9/29/2003	55		10	473	10	< 10	47.9	10	10		10		10	10	10			
B-96	9/29/2003	25		736 d	79.5	1.54	< 1	0.529 J	1	1		1		1	1	1			
B-96	9/29/2003	55		1	182 d	1.8	< 1	23.4	1	1		1		1	1	1			
B-97	9/16/2003	25		100	1140	82.2 J	< 100	100	100	100		100		100	100	100			
MW-08 (HydroPun)	9/25/2003	35		2	629 d	13.2	< 100	1.09 J	2	2		1.16 J		2	1.62 J	2			
B-101	12/11/2003	22 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			
B-101 Field Duplica	12/11/2003	22 Ft		2.5	2.5	2.5	< 2.5	2.5	2.5	2.5		2.5		2.5	2.5	2.5			
B-101	12/12/2003	60 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.52	0.5			
B-102	12/11/2003	25 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			
B-102	12/11/2003	52 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			
B-103	12/12/2003	35 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			
B-103	12/12/2003	45 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	1.1	0.5			
B-104	12/12/2003	30 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	1.9	0.77			
B-104	12/12/2003	55 Ft		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.57	0.5			
B-105	12/12/2003	25 Ft		1	1	1	< 1	1	1	1		1		1	1	1			
B-105	12/12/2003	60 Ft		2	2	2	< 2	2	2	2		2		2	2	2			
CPT HydroPunch Samples (ERM, 2001)																			
CPT-01	10/23/2001	57		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			
CPT-01	10/23/2001	78		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5			

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CPT-01	10/23/2001	89		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-02	10/22/2001	54		0.5	120	1.6	0.6	67	0.5	0.5		0.8		0.5	0.5	0.5		
CPT-02	10/22/2001	86		0.5	1.4	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-04	10/22/2001	34		50	12000	50	< 50	440	50	50		50		50	50	50		
CPT-04	10/22/2001	45		25	4600	25	< 25	310	25	25		25		25	25	25		
CPT-04	10/23/2001	65		1.3	240	1.3	< 1.3	11	1.3	1.3		1.3		1.3	1.3	1.3		
CPT-04 (DUP)	10/23/2001	65		1	230	1.2	< 1	10	1	1		1		1	1	1		
CPT-04	10/23/2001	83		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-04	10/23/2001	95		0.5	1.3	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-05	10/24/2001	37		0.5 UJ	0.5 UJ	0.5 UJ	< 0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-05	10/24/2001	44		0.5 UJ	0.5 UJ	0.5 UJ	< 0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-05	10/24/2001	63		0.5 UJ	0.5 UJ	0.5 UJ	< 0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-05	10/24/2001	97		0.5 UJ	0.5 UJ	0.5 UJ	< 0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-06	10/24/2001	18		0.5 UJ	5.6 J	16 J	< 2.3 J	0.5 UJ	1.2 J	0.5 UJ		0.5 J		0.5 J	0.5 UJ	0.5 UJ		
CPT-06	10/24/2001	53		0.5 UJ	150 J	0.8 J	< 0.5 UJ	38 J	0.5 UJ	0.5 UJ		0.7 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-06	10/24/2001	65		46 J	140 J	0.7 J	< 0.5 UJ	21 J	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-06	10/24/2001	85		0.5 UJ	7.7 J	0.5 UJ	< 0.5 UJ	1.7 J	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-07	10/25/2001	53		2.5 UJ	1100 J	6.5 J	< 2.5 UJ	61 J	2.5 UJ	2.5 UJ		2.5 UJ		2.5 UJ	2.5 UJ	2.5 UJ		
CPT-07	10/25/2001	61		2.5 UJ	750 J	4.1 J	< 2.5 UJ	31 J	2.5 UJ	2.5 UJ		2.5 UJ		2.5 UJ	2.5 UJ	2.5 UJ		
CPT-07	10/25/2001	65		NS	NS	NS	NS	NS	NS	NS		NS		NS	NS	NS		
CPT-07	10/25/2001	67		1.5 J	980# J	4.5 J	< 1 UJ	46 J	1 UJ	1 UJ		1.5 J		1 UJ	1 UJ	1 UJ		
CPT-07	10/25/2001	73		2.5 UJ	1000# J	4.3 J	< 2.5 UJ	43 J	2.5 UJ	2.5 UJ		2.5 UJ		2.5 UJ	2.5 UJ	2.5 UJ		
CPT-07	10/25/2001	97		0.5 UJ	0.5 UJ	0.5 UJ	< 0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ		0.5 UJ		0.5 UJ	0.5 UJ	0.5 UJ		
CPT-08	10/29/2001	41		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-08	10/29/2001	50		0.5	2.9	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-08	10/30/2001	66		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-08	10/30/2001	77		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-08	10/30/2001	88		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.6	0.5	0.5		
CPT-09	11/2/2001	34		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-09	11/2/2001	41		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-09	11/2/2001	61		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-10	11/2/2001	39		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-10 (DUP)	11/2/2001	39		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-10	11/2/2001	59		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-10	11/2/2001	75		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-10	11/7/2001	87		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-10	11/7/2001	98		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-11	11/7/2001	43		5	1100	120	6.2	18	5	5		5		5	5	5		
CPT-11	11/7/2001	77		0.5	0.7	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-11	11/7/2001	84		0.5	1.1	0.5	< 0.5	0.5	0.5	0.5		0.5		0.7	0.5	0.5		
CPT-11	11/7/2001	96		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-12	10/29/2001	48		2	460	2.9	< 2	21	2	2		2		2	2	2		
CPT-12	10/29/2001	62		0.5	110	0.5	< 0.5	21	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-12	10/29/2001	77		1.7	390	1.7	< 1.7	45	1.7	1.7		1.7		1.7	1.7	1.7		
CPT-12	10/29/2001	87		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-12 (DUP)	10/29/2001	87		0.5	0.6	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-12	10/29/2001	99		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-13	10/26/2001	52		2	500	2	< 2	41	2	2		2		2	NS	2		
CPT-13	10/26/2001	63		3.6	640	4.1	< 3.6	50	3.6	3.6		3.6		3.6	3.6	3.6		
CPT-13	10/26/2001	86		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-13	10/26/2001	99		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-14	10/30/2001	44		4.2	970	19	< 4.2	24	4.2	4.2		4.2		4.2	4.2	4.2		
CPT-14	10/30/2001	54		2	600	25	< 2	13	2	2		2		2	2	2		
CPT-14 (DUP)	10/30/2001	54		2	600	25	< 2	11	2	2		2		2	2	2		
CPT-14	10/30/2001	86		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-14	10/30/2001	98		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-15	10/31/2001	56		5	1100	32	< 5	14	5	5		5		5	5	5		
CPT-15	10/31/2001	88		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-15	10/31/2001	101		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-16	11/1/2001	52		1	260	1	< 1	19	1	1		1		1	1	1		
CPT-16	11/1/2001	76		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-16	11/1/2001	88		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-16	11/1/2001	100		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-17	11/1/2001	47		2.5	650	3	< 2.5	33	2.5	2.5		2.5		2.5	2.5	2.5		
CPT-17	11/1/2001	57		0.5	320	2.4	< 0.5	31	0.5	0.5		0.8		0.5	0.5	0.5		
CPT-17	11/1/2001	95		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-18	3/29/2002	43		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-18	3/29/2002	59		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-18	3/29/2002	72		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5						

Table 1
 Volatile Organic Compounds Detected in Groundwater Samples
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 Hookston Station Site
 Pleasant Hill, California

Sample Location	Date	Sample Depth (feet)	Sample Type	PCE (µg/L)	TCE (µg/L)	c-1,2-DCE (µg/L)	t-1,2-DCE (µg/L)	1,1-DCE (µg/L)	VINYL CHLORIDE (µg/L)	1,1,1-TCA (µg/L)	1,1-DCA (µg/L)	1,1,2-TCA (µg/L)	1,2-DCA (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYLBENZENE (µg/L)	XYLENES (µg/L)	MTBE (µg/L)
California State MCL:				5	5	6	10	6	0.5	200	5	5	0.5	1	150	700	20	5
Hookston Station Groundwater Cleanup Standard:				n/a	5	6	10	6	0.5	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hookston Station Groundwater Cleanup Standard (for vapor intrusion):				n/a	530	6,200	6,700	6,300	3.8	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CPT-19 (DUP)	3/29/2002	53		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-19	3/29/2002	84.5		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-20	3/28/2002	21		0.5	1.1	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-20	3/28/2002	44		0.5	1.8	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-20	3/28/2002	67		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-20	3/28/2002	85		0.5	0.5	0.5	< 0.5	0.5	0.5	0.5		0.5		0.5	0.5	0.5		
CPT-21	9/25/2002	50		1	1	1	< 1	1	1	1		1		0.28	J	1	1	
CPT-22	9/18/2002	18		940	60	14	JJ	< 20	20	20		20		20	20	20		
CPT-22 (DUP)	9/18/2002	18		1100	69	20	J	< 20	20	20		20		20	20	20		
CPT-22	9/18/2002	64		1	1	1	< 1	1	1	1		1		0.38	J	0.29	J	1
CPT-23	9/18/2002	30		330	J	24	J	< 5	5	5		5		5	5	5		
CPT-23	9/18/2002	50		5	260	J	< 5	71	J	5	q	5		5	5	5		
CPT-23 (DUP)	9/18/2002	50		2	220	J	0.27	J	44	J		2	q	0.97	J	2	2	
CPT-23	9/18/2002	72		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-24	9/18/2002	55		87	11	2	< 2	1.3	J	2		2		0.33	J	2	2	
CPT-25	9/25/2002	16		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-25	9/25/2002	52		460	J	60	J	< 5	5	5		5		0.65	J	5	5	
CPT-26	9/26/2002	20		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-26	9/25/2002	49		1	46	0.46	J	< 1	43	1		1		0.38	J	1	1	
CPT-27	9/26/2002	19		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-27	9/26/2002	49		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-28	9/27/2002	56		1	1	1	< 1	1	1	1		1		0.43	JU	1	1	
CPT-29	9/27/2002	65		1	1	1	< 1	1	1	1		1		1	0.47	J	1	
CPT-31	9/26/2002	37		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-31	9/26/2002	48		1	1	1	< 1	1	1	1		1		0.25	J	1	1	
CPT-32	9/26/2002	49		1	1	1	< 1	1	1	1		1		1	1	1		
CPT-32 (DUP)	9/26/2002	49		1	1	1	< 1	1	1	1		1		1	1	1		
Park Well Samples																		
PARK WELL	10/3/2002	0		2.7	JJ	880		18	J	20		20		20	20	20		
PARK WELL (DUP)	10/3/2002	0		4.1	JJ	930		21	J	20		20		20	20	20		

Notes:
 California State MCL = Maximum Contaminant Level for drinking water from Title 22 of the California Code of Regulations
 Hookston Station Ground Water Cleanup Standard and Ground Water Cleanup Standard for Vapor Intrusion are established in the *Final Site Cleanup Requirements for the Hookston Station Site (California Regional Water Quality Control Board, San Francisco Bay Region, 22 November 2006)*
 Highlighting indicates the detected concentration is greater than the California MCL or Hookston Station Groundwater Cleanup Standard
 µg/L = Micrograms per liter
 Sample Type = 'traditional' indicates samples were collected by traditional purge-and-sample techniques; 'passive' indicates samples were collected with passive diffusion bags. 'Low Flow' indicates samples collected using low-flow purge technique with a peristaltic pump and in-line flow-through cell for water quality parameters.
 < = Not detected
 DUP = Duplicate sample
 *These samples are considered inconsistent with historical data. Wells were resampled after allowing for sufficient re-equilibration of the passive diffusion bags.
 # = Maximum of multiple analytical results
 B = Compound is found in the associated blank as well as in the sample
 D = Result from an analysis at a secondary dilution factor
 Dx = Result from a re-analysis at a secondary dilution factor
 E = Concentrations exceed the calibration range of the instrument
 H2 = Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
 J = The result is an estimated value
 N = Result may have been affected by carryover, which could have given the result a high bias
 NS = Not sampled
 R = Result is qualified as rejected
 U = Compound detected in an associate blank & treated as nondetect
 UJ = Compound not detected at an estimated limit
 V = The sample concentration is too high to evaluate accurate spike recoveries
 J4 = The associated batch QC was outside the established quality control range for accuracy
 J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low
 J- = Detected results are estimated and biased low
 J+ = Detected results are estimated and biased high

Chemicals:
 PCE = Tetrachloroethene
 TCE = Trichloroethene
 c-1,2-DCE = cis-1,2-dichloroethene
 t-1,2-DCE = trans-1,2-dichloroethene
 1,1-DCE = 1,1-dichloroethene
 1,1,1-TCA = 1,1,1-trichloroethane
 1,1-DCA = 1,1-dichloroethane
 1,1,2-TCA = 1,1,2-trichloroethane
 1,2-DCA = 1,2-dichloroethane
 MTBE = Methyl Tert Butyl Ether

Table 2
 Summary of Volatile Organic Compound Detections in Soil Vapor Samples
 2017 Five-Year Remedy Effectiveness Review
 Hookston Station Site
 Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-1	5	4/13/2005	84	2,700	< 7.4	< 7.4	18	< 4.8	15	41	< 8.1	19	< 8.1	7200	E	N/A	N/A	N/A	N/A	N/A
SVP-1	5	5/23/2005	< 110	3,600	< 64	< 64	< 64	< 41	< 51	< 61	< 70	< 70	< 70	9,500	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1 dup	5	5/23/2005	< 220	4,100	< 130	< 130	< 130	< 82	< 100	< 120	< 140	< 140	< 140	11,000	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	6/14/2005	140	5,500	< 13	< 13	17	< 8.6	< 11	< 13	< 14	< 14	< 14	< 33	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	9/13/2005	170	6,100	< 13	< 13	16	< 8.2	< 10	< 12	< 14	< 14	< 14	< 39	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1 dup	5	9/13/2005	170	6,500	< 25	< 25	< 25	< 16	< 20	< 24	< 27	< 27	< 27	< 62	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	11/14/2005	110	4,600	< 9.2	< 9.2	13	< 6.0	< 7.4	< 8.8	< 10	< 10	< 10	< 23	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	1/24/2006	73	2,900	< 6.7	< 6.7	12	< 4.3	< 5.4	< 6.3	< 7.3	< 7.3	< 7.3	< 16	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	4/28/2006	91	2,700	< 5.1	< 5.1	9.2	< 3.3	< 4.1	< 4.9	< 5.6	< 5.6	< 5.6	< 13	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/13/2006	130	3,300	< 9.2	< 9.2	UJ < 9.2	< 6.0	< 7.4	< 8.8	< 10	< 10	< 10	< 23	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	10/19/2006	99	3,300	< 9	< 9.0	< 9	< 5.8	< 7.3	62	21	90	37	< 22	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	2/20/2007	65	1,700	< 3.2	< 3.2	4.1	< 2.0	< 2.6	< 3.0	< 3.5	< 3.5	< 3.5	8.7	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	5/14/2007	130	3,100	< 6.1	< 6.1	< 6.1	< 3.9	< 4.9	< 5.8	< 6.7	< 6.7	< 6.7	< 15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/19/2007	200	3,900	< 10	< 10	< 10	< 6.5	< 8.1	< 9.6	< 11	< 11	< 11	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	10/3/2007	140	3,000	< 6.8	< 6.8	< 6.8	< 4.4	< 5.5	< 6.4	< 7.4	< 7.4	< 7.4	< 17	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	2/7/2008	42	830	< 3.1	< 3.1	4.1	< 2	< 2.5	< 3	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	4/16/2008	< 82	1,400	< 48	< 48	< 48	< 31	< 39	< 46	< 52	< 52	< 52	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/22/2008	220	2,800	< 49	< 49	< 49	< 32	< 39	< 46	< 54	< 54	< 54	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-1 dup	5	7/22/2008	190	2,700	< 48	< 48	< 49	< 31	< 39	< 46	< 52	< 52	< 52	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-1	5	10/14/2008	180	2,700	< 42	< 42	< 42	< 27	< 34	< 40	< 46	< 46	< 46	< 100	< 120	N/A	N/A	N/A	N/A	N/A
SVP-1	5	1/29/2009	< 82	260	< 48	< 48	< 48	< 31	< 38	< 45	< 52	< 52	< 52	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-1	5	4/15/2009	< 78	940	< 45	< 45	< 45	< 29	< 36	< 43	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-1 ^d	5	7/30/2009	< 83	1,600	< 48	< 48	< 48	< 31	< 39	< 46	< 53	< 53	< 53	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-1	5	10/6/2009	110	1,800	< 50	< 50	< 50	< 32	< 40	< 47	< 55	< 55	< 55	< 120	N/A	< 0.13	N/A	N/A	N/A	N/A
SVP-1	5	1/14/2010	< 78	< 62	< 46	< 46	< 46	< 30	< 37	< 44	< 50	< 50	< 50	< 110	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-1 dup	5	1/14/2010	< 76	< 60	< 44	< 44	< 44	< 28	< 36	< 42	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-1	5	5/5/2010	95	640	3	< 1.6	< 1.6	< 1	< 1.3	2.9	< 1.7	< 3.5	< 1.7	240	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	8/4/2010	24	250	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	45	13	23	9.5	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	11/4/2010	75	800	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	3/10/2011	34	240	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	10	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	5/23/2011	81	490	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	2.8	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1 dup	5	5/23/2011	95	540	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 2.4	U < 1.7	4.3	3.9	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	8/4/2011	160	1,000	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	10/31/2011	180	450	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.0	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	2/13/2012	34	190	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	9.8	N/A	N/A	500	N/A	N/A	N/A
SVP-1	5	5/9/2012	95	330	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	620	N/A	N/A	N/A
SVP-1*	5	8/22/2012*	95	330	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	290,000	N/A	N/A	< 4,100	N/A	N/A	N/A
SVP-1 dup*	5	8/22/2012*	81	280	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6.0	< 6.9	< 14	< 6.9	340,000	N/A	N/A	< 1,700	N/A	N/A	N/A
SVP-1	5	9/27/2012	200	490	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6	N/A	N/A	2,100	N/A	N/A	N/A
SVP-1	5	1/2/2013	35	130	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1 dup	5	1/2/2013	24	75	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	4.9	< 1.7	3.8	< 1.7	9.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	3/6/2013	46	120	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	5/8/2013	68	230	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3.0	< 3.5	< 6.9	< 3.5	34	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/30/2013	140	230	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	1.6	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	10/30/2013	75	180	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	1/28/2014	34	86	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/22/2014	180	310	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	1/22/2015	56	70	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	8/5/2015	262	275	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	1/28/2016	41.4	33	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/19/2016	132	79	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-1	5	7/12/2017	132	75.4	0.434	J < 1.59	< 1.59	< 1.02	0.486	J < 8.67	1.27	J < 4.15	1.79	< 6.15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	4/13/2005	190	21,000	< 42	< 42	160	< 27	< 34	100	< 46	< 46	< 46	< 100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2 dup	5	4/13/2005	200	20,000	< 42	< 42	160	< 2												

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-2	5	2/7/2008	84	6,000	< 13	< 13	97	< 8.6	< 11	< 13	< 14	< 14	< 14	< 33	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	4/16/2008	91	5,600	< 41	< 41	42	< 26	< 33	< 73	< 44	< 44	< 44	< 100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	7/22/2008	330	10,000	< 45	< 45	< 45	< 29	< 36	< 42	< 49	< 49	< 49	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-2	5	10/14/2008	190	7,000	< 40	< 40	64	< 26	< 32	< 38	< 44	< 44	< 44	< 100	420	N/A	N/A	N/A	N/A	N/A
SVP-2	5	1/29/2009	88	5,300	< 46	< 46	57	< 29	< 37	< 43	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-2 dup	5	1/29/2009	80	4,800	< 46	< 46	55	< 30	< 37	< 44	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-2	5	4/15/2009	140	6,000	< 48	< 48	< 48	< 31	< 39	< 46	< 53	< 53	< 53	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-2 ^e	5	7/30/2009	370	9,000	< 50	< 50	< 50	< 32	< 40	< 48	< 55	< 55	0	< 120	N/A	< 0.13	N/A	N/A	N/A	N/A
SVP-2	5	10/6/2009	300	9,200	< 48	< 48	59	< 31	< 39	< 46	< 53	< 53	< 53	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-2	5	1/14/2010	77	3,300	< 44	< 44	< 44	< 28	< 36	< 42	< 48	< 48	< 48	< 110	N/A	0.22	N/A	N/A	N/A	N/A
SVP-2	5	5/5/2010	120	3,600	< 2	< 1.6	11	< 1	< 1.3	5.3	1.7	6.5	3.5	< 6.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	7/28/2010	160	3,000	< 2	< 1.6	5.2	< 1	1.4	4.5	4.2	15	5.2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	11/4/2010	< 270	2,000	< 160	< 160	< 160	< 100	< 130	600	< 170	< 350	< 170	7,900	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	3/10/2011	55	800	< 2	< 1.6	4.8	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	27	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	5/23/2011	130	2,100	< 2	< 1.6	2.3	< 1.0	< 1.3	1.6	U	< 1.7	< 3.5	< 1.7	< 6.4	U	N/A	N/A	N/A	N/A
SVP-2	5	8/4/2011	240	3,100	< 32	< 32	< 32	< 20.0	< 26	< 30	< 35	< 69	< 35	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	10/31/2011	170	1,500	< 2	< 1.6	3.8	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2 dup	5	10/31/2011	120	1,400	< 2	< 1.6	3.9	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	10	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	2/13/2012	50	1,100	< 2	< 1.6	4	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	8.8	N/A	N/A	1,000	N/A	N/A	N/A
SVP-2	5	5/9/2012	120	800	< 2	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	2,200	N/A	N/A	N/A
SVP-2	5	8/22/2012	180	1,300	< 2	< 1.6	< 1.6	< 1.0	< 1.7	5.3	< 1.7	5.2	2.6	37	N/A	N/A	2,500	N/A	N/A	N/A
SVP-2	5	1/3/2013	61	540	< 2	< 1.6	< 1.6	< 1.0	< 1.3	1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	3/6/2013	48	340	< 2	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	5/8/2013	120	540	< 2	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	21	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	7/30/2013	180	910	< 2	< 1.6	< 1.6	< 1.0	< 1.3	8.7	< 1.7	< 3.5	5.2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	10/30/2013	100	590	< 2	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	32	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	1/28/2014	54	360	< 2	< 1.6	< 1.6	< 1.0	< 1.3	3.2	< 1.7	< 3.5	< 1.7	< 31	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	7/22/2014	150	230	< 2	< 1.6	< 1.6	< 1.0	< 1.3	9.8	< 1.7	< 3.5	4.8	8.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	1/22/2015	58	210	< 2	< 1.6	< 1.6	< 1.0	< 1.3	1.6	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	8/5/2015	238	740	< 2	< 1.6	< 1.6	< 1.0	< 1.3	4.07	< 1.7	< 3.5	1.88	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	1/28/2016	50.3	133	< 2	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	7/19/2016	126	209	< 2	< 1.6	< 1.6	< 1.0	< 1.3	4.76	< 1.7	< 3.5	1.89	6.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-2	5	3/8/2017	41.6	69.4	< 2	< 1.6	< 1.6	< 1.0	< 1.3	4.51	0.476	J	1.06	J	0.875	J	6.96	N/A	N/A	N/A
SVP-2	5	7/12/2017	166	139	0.333	J	< 1.59	< 1.59	< 1.02	0.434	J	0.541	J	< 1.73	< 3.47	J	2.08	J	N/A	N/A
SVP-2 dup	5	7/12/2017	167	136	< 1.59	< 1.59	< 1.59	< 1.02	1.14	J	0.979	J	0.553	J	1.53	J	0.785	J	4.54	J
SVP-3	5	4/14/2005	< 260	2,600	60,000	2,700	340	12,000	360	160	< 170	< 170	< 170	< 380	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3 dup	5	4/14/2005	< 240	2,200	53,000	2,500	300	10,000	300	140	< 160	< 160	< 160	< 350	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	5/23/2005	< 2100	3,300	84,000	4,900	< 1200	14,000	< 1,000	< 1,200	< 1,400	< 1,400	< 1,400	< 3,100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	6/14/2005	< 1100	2,900	75,000	3,800	< 670	15,000	< 540	< 630	< 730	< 730	< 730	< 1,600	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	9/13/2005	< 1000	4,400	93,000	6,100	< 610	16,000	< 560	< 580	< 670	< 670	< 670	< 1,500	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	11/14/2005	< 570	2,800	68,000	2,800	< 330	10,000	< 320	< 360	< 360	< 360	< 360	< 820	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3 dup	5	11/14/2005	< 440	2,800	68,000	2,800	< 260	10,000	500	250	< 280	< 280	< 280	< 640	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	1/24/2006	< 570	1,300	37,000	1,400	< 330	8,400	< 270	< 320	< 360	< 360	< 360	< 820	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	4/28/2006	< 280	1,700	47,000	2,200	290	14,000	240	< 150	< 180	< 180	< 180	< 400	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/13/2006	< 2300	2,000	50,000	2,900	J	< 1300	11,000	< 1,100	< 1,300	< 1,400	< 1,400	< 1,400	< 3300	N/A	N/A	N/A	N/A	N/A
SVP-3	5	10/19/2006	< 360	2,200	56,000	2,300	< 210	5,300	360	< 200	< 230	< 230	< 230	< 520	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	2/20/2007	< 210	510	15,000	650	< 120	3,400	< 97	< 110	< 130	< 130	< 130	< 300	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	5/14/2007	< 380	1,400	39,000	1,800	< 220	8,900	270	< 210	< 240	< 240	< 240	< 550	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/19/2007	< 300	1,600	44,000	1,800	180	6,100	280	< 170	< 190	< 190	< 190	< 440	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	10/4/2007	< 160	1,300	37,000	1,100	< 93	2,200	240	< 88	< 100	< 100	< 100	< 230	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	2/7/2008	< 130	350	12,000	640	< 78	3,500	96	< 74	< 86	< 86	< 86	< 190	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	4/16/2008	< 75	670	22,000	1,000	130	5,700	130	< 42	< 48	< 48	< 48	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3 dup	5	4/16/2008	< 75	650	23,000	1,000	130	5,600	120	< 42	< 48	< 48	< 48	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/22/2008	< 78	1,300	36,000	2,200	180	3,600	210	< 43	< 50</									

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-3	5	3/31/2011	< 14	< 11	110	< 7.9	< 7.9	17	240	17	16	< 17	11	42	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	5/23/2011	< 11	< 140	120	< 6.3	< 6.3	17	420	32	25	< 14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3*	5	8/5/2011*	270	< 86	300	< 63.0	< 63	41	610	980	87	190	100	440	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	8/18/2011	< 54	< 43	440	< 32.0	< 32	41	890	120	61	< 69	< 35	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	10/31/2011	< 54	< 47	210	< 32.0	< 32	28	930	120	87	< 69	< 35	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	2/6/2012	< 2.7	< 2	79	< 1.6	< 1.6	7.9	540	60	41	18	13	11	N/A	N/A	120,000	5,000,000	13,000	<11,000
SVP-3	5	5/8/2012	< 270	< 210	< 160	< 160	< 160	< 100	230	< 150	< 170	< 350	< 170	< 610	N/A	N/A	45,000	N/A	N/A	N/A
SVP-3*	5	8/21/2012*	160	< 86	99	< 63	< 63	< 41	700	3,100	250	400	130	5,200	N/A	N/A	130,000	N/A	N/A	N/A
SVP-3	5	9/27/2012	< 110	< 86	75	< 63	< 63	< 41	960	3,800	1,300	6,900	2,300	320	N/A	N/A	170,000	N/A	N/A	N/A
SVP-3	5	1/3/2013	600	140	< 63	< 63	< 63	< 41	260	450	< 69	< 140	< 69	440	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	3/5/2013	< 34	< 27	< 20	< 20	< 20	< 13	170	20	31	< 43	< 22	< 77	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	5/8/2013	< 11	< 9	48	< 6.3	< 6.3	< 4	450	60	120	74	43	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/29/2013	< 11	14	38	< 6.3	6.8	< 4.1	380	38	91	61	33	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3 dup	5	7/29/2013	< 11	< 8.6	40	6.7	< 6.3	< 4.1	420	41	100	69	37	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	10/29/2013	< 4.7	< 8.6	44	< 6.3	< 6.3	4.9	230	23	65	65	31	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	1/27/2014	100	64	< 40	< 40	< 40	< 26	180	280	56	120	48	< 310	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3 dup	5	7/22/2014	< 27	< 21	36	< 16	< 16	< 10	450	57	120	91	48	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/22/2014	< 27	< 21	55	< 16	< 16	< 10	610	60	130	100	52	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	1/22/2015	< 34	< 27	< 23	< 23	< 20	< 13	510	45	110	52	35	< 77	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	8/5/2015	< 27	< 21	58	< 16	< 16	< 10	651	51	119	28	58	223	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3 dup	5	8/5/2015	< 4.7	< 8.6	47	< 6.3	< 6.3	4.9	580	49	136	129	63	188	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	9/30/2015	< 27.2	< 21.4	44.1	< 15.9	< 15.9	< 10.2	665	52	152	100	53	< 61.5	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	1/28/2016	< 2.7	< 2.1	19.7	< 1.6	< 1.6	< 1.0	177	30	75.1	49	25	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/18/2016	< 2.7	J+ < 2.1	J+ 21.7	J+ 3.54	J+ < 1.6	J+ < 1.0	J+ 590	J+ 23	J+ 108	J+ 83	J+ 48	J+ < 6.1	J+ N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	3/8/2017	< 2.72	< 2.14	15.3	< 1.6	< 1.6	< 1.0	208	19.1	71.9	35.4	20	< 6.15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-3	5	7/12/2017	2.72	< 2.14	22.8	< 1.59	0.787	J < 1.02	389	31.2	156	87.9	46.8	4.36	J	N/A	N/A	N/A	N/A	N/A
SVP-4	5	4/20/2005	180	14,000	1,300	41	170	340	< 26	35	< 36	< 36	< 36	< 81	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	9/13/2005	< 5.5	< 4	< 3	< 3.2	< 3.2	< 2.0	< 2.6	< 3.0	< 3.5	< 3.5	< 3.5	< 2,100	E	N/A	N/A	N/A	N/A	N/A
SVP-4	5	11/14/2005	80	13,000	3,100	130	580	1,100	< 25	31	< 34	94	37	< 78	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	5/4/2006	85	13,000	2,700	50	200	130	< 28	< 33	< 38	< 38	< 38	< 86	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4 dup	5	5/4/2006	63	11,000	2,200	34	160	100	< 21	< 25	< 29	< 29	< 29	< 66	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	7/13/2006	130	18,000	3,300	140	J- 440	430	< 38	< 45	< 52	< 52	< 52	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	10/19/2006	< 95	18,000	4,100	130	440	210	< 45	< 53	< 61	< 61	< 61	< 140	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	2/21/2007	< 5.5	93	34	< 3.2	< 3.2	< 2.0	< 2.6	< 3.0	< 3.5	< 3.5	< 3.5	< 7.9	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	5/21/2007	130	14,000	2,200	< 42	150	60	< 34	< 40	< 46	< 46	< 46	< 100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4 dup	5	5/21/2007	110	13,000	2,200	44	160	58	< 34	< 40	< 46	< 46	< 46	< 100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	7/19/2007	210	19,000	4,000	< 72	340	54	< 58	< 69	< 79	< 79	< 79	< 180	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4 dup	5	7/19/2007	170	19,000	4,200	< 60	350	48	< 49	< 57	< 66	< 66	< 66	< 150	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	10/4/2007	110	15,000	3,100	< 41	340	< 26	< 33	< 39	< 45	< 45	< 45	< 100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	2/7/2008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	4/15/2008	< 76	6,200	2,300	< 45	180	33	< 36	< 42	< 49	< 49	< 49	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	7/22/2008	250	15,000	3,300	< 46	270	< 30	< 38	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-4	5	10/14/2008	110	12,000	2,800	< 46	300	< 30	< 37	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-4 dup	5	10/14/2008	110	12,000	2,800	< 46	230	< 30	< 37	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-4	5	1/29/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	4/15/2009	< 79	4,600	1,400	< 46	99	< 30	< 37	< 44	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-4 ⁱ	5	7/31/2009	< 68	5,700	1,700	< 40	220	< 26	< 32	< 38	< 44	< 44	< 44	< 99	N/A	0.15	N/A	N/A	N/A	N/A
SVP-4	5	10/7/2009	91	8,300	2,400	< 51	220	< 33	< 41	< 48	< 56	< 56	< 56	< 120	N/A	< 0.13	N/A	N/A	N/A	N/A
SVP-4	5	1/13/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	5/3/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	7/30/2010	75	3,700	870	7.1	130	7.7	1.7	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	11/15/2010	< 54	1,700	480	< 32	91	< 20	< 26	< 30	< 35	< 69	< 35	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	3/9/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	5/27/2011	39	1,300	310	4.8	18	< 1	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	44	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	8/5/2011	140	2,300	480	23.0	100	17	2.4	< 1.5	< 1.7	< 3.5	< 1.7	44	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	11/3/2011	200	1,100	320	11.0	55	7.4	< 5.1	6.0	< 6.9	14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	2/13/2012	< 2.7	16	4	< 1.6	< 1.6	< 1.0	< 1.3	1.7	3.8	< 3.5</								

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-4	5	1/23/2015	18	470	63	< 1.6	30	< 1.0	< 1.3	2.6	4.1	11	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	8/6/2015	154	1,340	195	6.4	95.4	2.9	1.4	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	1/28/2016	61.9	749	53	1.6	18.1	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	7/19/2016	78.8	2,440	196	4.7	32.4	2.1	1.46	5.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-4	5	7/13/2017	13.4	9.96	< 1.59	< 1.59	< 1.59	< 1.02	< 1.28	1.01	J < 1.73	< 3.47	< 1.73	0.956	J	N/A	N/A	N/A	N/A	N/A
SVP-5	5	4/14/2005	< 210	36,000	1,800	< 120	1100	< 81	< 100	< 120	< 140	< 140	< 140	< 310	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	6/15/2005	< 200	29,000	3,000	340	1700	< 67	< 93	< 110	< 130	< 130	< 130	930	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	9/13/2005	< 180	29,000	2,200	240	590	< 41	< 51	< 61	< 70	< 70	< 70	< 260	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	11/14/2005	< 110	24,000	1,500	120	490	< 66	< 82	< 97	< 110	< 110	< 110	< 250	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	2/14/2006	180	41,000	1,900	< 100	1300	< 79	< 99	< 120	< 140	< 140	< 140	< 300	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5 dup	5	2/14/2006	210	49,000	2,300	< 120	1500	< 130	< 93	< 110	< 130	< 130	< 130	< 290	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	4/28/2006	< 200	45,000	2,500	200	1600	130	< 93	< 110	< 130	< 130	< 130	< 290	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	7/13/2006	< 200	37,000	2,700	420	J- 1100	290	< 93	< 110	< 130	< 130	< 130	< 290	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	10/20/2006	< 110	29,000	1,900	200	700	< 41	< 51	< 61	< 70	< 70	< 70	< 160	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	2/20/2007	190	35,000	1,600	< 95	1100	< 61	< 77	< 90	< 100	< 100	< 100	< 240	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5 dup	5	2/20/2007	170	34,000	1,500	< 93	1100	< 60	< 75	< 88	< 100	< 100	< 100	< 230	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	5/21/2007	160	25,000	2,100	250	620	78	< 77	< 90	< 100	< 100	< 100	< 240	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	7/19/2007	< 130	25,000	1,600	180	300	< 48	< 60	< 70	< 81	< 81	< 81	< 180	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	10/4/2007	< 120	32,000	1,400	220	590	< 47	< 58	< 69	< 79	< 79	< 79	< 180	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5 dup	5	10/4/2007	< 120	32,000	1,500	220	600	< 47	< 58	< 69	< 79	< 79	< 79	< 180	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	2/7/2008	< 130	24,000	900	81	740	< 50	< 63	< 74	< 86	< 86	< 86	< 190	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	4/15/2008	77	21,000	1,400	210	410	63	< 35	< 42	< 48	< 48	< 48	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	7/21/2008	200	39,000	1,700	220	620	< 30	< 37	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-5	5	10/16/2008	300	53,000	1,600	130	940	< 32	< 40	< 47	< 54	< 54	< 54	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-5	5	1/29/2009	< 76	12,000	130	< 45	130	< 29	< 36	< 42	< 49	< 49	< 49	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-5 dup	5	1/29/2009	< 78	13,000	150	< 46	140	< 29	< 37	< 43	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-5	5	4/15/2009	140	22,000	480	84	440	42	< 35	< 42	< 48	< 48	< 48	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-5 dup	5	4/15/2009	130	21,000	480	84	440	36	< 35	< 41	< 48	< 48	< 48	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-5	5	7/27/2009	430	64,000	1,700	180	1200	< 42	< 53	< 63	< 72	< 72	< 72	< 160	< 120	N/A	N/A	N/A	N/A	N/A
SVP-5	5	10/6/2009	310	46,000	650	< 180	650	< 120	< 140	< 170	< 200	< 200	< 200	< 440	< 130	N/A	N/A	N/A	N/A	N/A
SVP-5	5	1/12/2010	77	11,000	100	< 42	75	< 27	< 34	< 40	< 46	< 46	< 46	< 100	< 110	N/A	N/A	N/A	N/A	N/A
SVP-5*	5	5/3/2010*	18	2,600	55	< 6.3	19	< 4.1	< 5.1	6.8	< 6.9	< 14	< 6.9	9,300	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	6/8/2010	< 270	5,900	160	< 160	< 160	< 100	< 130	< 150	< 170	< 350	< 170	< 610	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	8/6/2010	350	19,000	1,100	260	250	< 4.1	< 5.1	15	< 6.9	< 14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	11/5/2010	230	14,000	220	63	160	< 1	3.2	2.8	U < 1.7	4.2	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	3/9/2011	150	7,000	99	7.1	150	< 1.0	< 1.3	< 1.5	U < 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	5/23/2011	160	5,100	150	13	150	6.9	< 1.3	< 5.3	U < 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	8/5/2011	450	12,000	1,900	120	190	< 20.0	< 26	< 20	< 35	< 69	< 35	< 120	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	10/31/2011	280	14,000	330	67	240	< 10.0	< 13	< 15	< 17	< 35	< 17	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	2/6/2012	110	7,000	91	19	83	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	8.4	N/A	N/A	5,800	28,000	<12,000	<11,000
SVP-5	5	5/8/2012	130	7,500	130	9.5	79	< 2.0	< 2.6	18	11	24	5.6	< 12	N/A	N/A	9,100	N/A	N/A	N/A
SVP-5	5	8/21/2012	270	18,000	440	100	140	< 4.1	< 5.1	8.7	< 6.9	< 14	< 6.9	59	N/A	N/A	7,800	N/A	N/A	N/A
SVP-5	5	1/2/2013	75	3,500	36	5.2	52	< 1.0	< 1.3	1.8	7.4	82	2.8	13	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	3/6/2013	150	9,600	75	< 6.3	95	< 4.1	< 5.1	6	< 6.9	< 14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5 dup	5	3/6/2013	200	9,600	100	2	110	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	5/8/2013	41	4,600	87	< 16	38	13.0	< 13	< 15	< 17	< 35	< 17	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5	5	7/30/2013	200	1,000	370	120	130	< 2.0	< 2.6	< 3	< 3.5	< 6.9	< 3.5	< 12	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5R	5	2/13/2012	62	4,000	22	8.3	67	< 1.0	8.0	14	9.5	34	10	< 6.1	N/A	N/A	2,300	7,200	<12,000	<11,000
SVP-5R*	5	5/8/2012*	< 140	9,100	< 79	< 79	79	< 51.0	< 64.0	< 75	< 87	< 170	< 87	< 340	N/A	N/A	<21,000	N/A	N/A	N/A
SVP-5R	5	6/1/2012	180	9,100	26	18	87	< 4.1	< 999.0	< 6.0	< 6.9	< 14	< 6.9	< 25	N/A	N/A	13,000	N/A	N/A	N/A
SVP-5R	5	8/21/2012	200	9,100	87	44	40	< 2.0	< 2.6	< 3.0	< 3.5	< 6.9	< 3.5	34	N/A	N/A	4,000	N/A	N/A	N/A
SVP-5R	5	1/2/2013	180	8,000	17	< 1.6	< 1.6	< 1.0	1.4	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5R	5	3/6/2013	170	9,100	9	< 1.6	110	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5R	5	5/8/2013	53	3,600	< 16	< 16	52	< 10.0	< 13.0	< 15.0	< 17	< 35	< 17	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-5R	5	7/30/2013	190	5,900	< 320															

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-6	5	4/13/2005	36	38	< 3	< 3.0	< 3	< 1.9	< 2.4	< 2.8	< 3.2	< 3.2	< 3.2	< 7.3	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	6/14/2005	44	64	< 3	< 3.3	< 3.3	< 2.1	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	46	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	9/13/2005	36	47	< 3	< 3.2	< 3.2	< 2.1	< 2.6	3.8	< 3.6	3.9	< 3.6	89	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	11/14/2005	17	28	< 3	< 2.7	< 2.7	< 1.7	< 2.2	8.8	3.7	9.0	3.3	< 6.7	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	1/24/2006	14	41	< 3.5	< 3.5	< 3.5	< 2.2	< 2.8	< 3.3	< 3.8	< 3.8	< 3.8	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	4/28/2006	17	74	< 3.5	< 3.5	< 3.5	< 2.3	< 2.8	< 3.4	< 3.9	< 3.9	< 3.9	< 8.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	7/13/2006	36	110	< 3.3	< 3.3	UJ < 3.3	< 2.1	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	10/20/2006	25	140	< 3.2	< 3.2	< 3.2	< 2.1	< 2.6	33	12	55	23	< 8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	2/20/2007	13	92	< 2.8	< 2.8	< 2.8	< 1.8	5.4	5.0	< 3.1	10	3.8	< 7.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	5/14/2007	29	180	< 3	< 3.0	< 3	< 1.9	< 2.4	< 2.8	< 3.2	< 3.2	< 3.2	< 7.3	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	7/20/2007	47	200	< 3.4	< 3.4	< 3.4	< 2.2	< 2.7	< 3.2	< 3.7	< 3.7	< 3.7	< 8.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	10/3/2007	33	110	< 3.4	< 3.4	< 3.4	< 2.2	< 2.7	< 3.2	< 3.7	4.3	< 3.7	< 8.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	2/7/2008	< 5.9	28	< 3.5	< 3.5	< 3.5	< 2.2	< 2.8	< 3.3	< 3.8	< 3.8	< 3.8	16	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6 dup	5	2/7/2008	11	55	< 3.5	< 3.5	< 3.5	< 2.3	< 2.8	< 3.3	< 3.8	< 3.8	< 3.8	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	4/16/2008	< 79	100	< 46	< 46	< 46	< 30	< 37	< 44	< 50	< 50	< 50	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	7/21/2008	< 86	180	< 50	< 50	< 50	< 32	57	78	< 55	< 55	71	< 120	< 140	N/A	N/A	N/A	N/A	N/A
SVP-6	5	10/14/2008	< 74	190	< 43	< 43	< 43	< 28	< 35	< 41	< 47	< 47	< 47	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-6	5	1/28/2009	< 78	120	< 45	< 45	< 45	< 29	< 36	< 43	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-6	5	4/15/2009	< 79	180	< 46	< 46	< 46	< 30	< 37	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-6 ^k	5	7/30/2009	< 96	250	< 56	< 56	< 56	< 36	< 45	< 54	< 62	< 62	< 62	200	N/A	0.2	N/A	N/A	N/A	N/A
SVP-6	5	10/6/2009	< 86	240	< 50	< 50	< 50	< 32	< 40	< 48	< 55	< 55	< 55	< 120	N/A	< 0.13	N/A	N/A	N/A	N/A
SVP-6 dup	5	10/6/2009	< 86	240	< 50	< 50	< 50	< 32	< 41	< 48	< 55	< 55	< 55	< 120	N/A	< 0.13	N/A	N/A	N/A	N/A
SVP-6	5	1/13/2010	< 75	120	< 44	< 44	< 44	< 28	< 35	< 41	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-6	5	5/4/2010	14	86	< 1.6	< 1.6	< 1.6	< 1	2.6	53	9.5	20	6.9	57	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	7/28/2010	33	150	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	7.5	< 6.9	< 14	8.2	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	11/4/2010	34	210	< 3.2	< 3.2	< 3.2	< 2	< 2.6	3.5	U < 3.5	8.2	< 3.5	13	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	3/10/2011	18	120	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	11	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	5/23/2011	34	190	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 4.9	U 2.4	10	4.8	< 7.6	U	N/A	N/A	N/A	N/A	N/A
SVP-6	5	8/4/2011	64	230	< 1.6	< 1.6	< 1.6	< 1.0	12	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6 dup	5	8/4/2011	51	160	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3	< 3.5	< 6.9	< 3.5	< 12	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	10/31/2011	46	58	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	74	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	2/13/2012	9.5	64	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.1	< 1.7	3.6	2.1	12	N/A	N/A	410	N/A	N/A	N/A
SVP-6 dup	5	2/13/2012	11	75	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.3	< 1.7	4.3	2.4	17	N/A	N/A	450	N/A	N/A	N/A
SVP-6	5	5/9/2012	15	59	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	1.7	< 1.7	< 3.5	2.0	6.9	N/A	N/A	500	N/A	N/A	N/A
SVP-6	5	8/22/2012	95	160	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6.0	< 6.9	15	< 6.9	< 25	N/A	N/A	2,100	N/A	N/A	N/A
SVP-6	5	1/3/2013	18	59	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	3/6/2013	9.5	31	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	13	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	5/8/2013	34	75	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	14	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6*	5	7/30/2013*	59	70	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3.0	< 3.5	< 6.9	< 3.5	100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	8/22/2013	48	53	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6.0	< 6.9	< 14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	10/30/2013	24	50	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	1/28/2014	16	44	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	8/29/2014	120	96	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	1/22/2015	31	100	2.9	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	8/5/2015	140	66	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	2/23/2016	24.8	19.6	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	7/18/2016	87.3	32.5	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.4	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6	5	3/8/2017	23.1	10.6	< 1.59	< 1.59	< 1.59	< 1.0	3.76	166	2.28	6.16	1.81	7.34	N/A	N/A	N/A	N/A	N/A	N/A
SVP-6 dup	5	3/8/2017	20.2	17.2	2.94	< 1.59	< 1.59	< 1.0	0.431	J 200	< 1.73	0.878	J < 1.73	3.92	J	N/A	N/A	N/A	N/A	N/A
SVP-6	5	7/13/2017	86.2	214	2.85	< 1.59	< 1.59	< 1.02	0.327	J 0.699	J < 1.73	1.06	J < 1.73	1.48	J	N/A	N/A	N/A	N/A	N/A
SVP-7	5	4/14/2005	16	< 4.2	15	< 3.1	< 3.1	2.8	< 2.5	3.8	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	9/13/2005	5.8	< 4.5	< 3.3	< 3.3	< 3.3	< 2.1	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	55	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	11/14/2005	< 6.1	< 4.8	< 3.5	< 3.5	< 3.5	< 2.3	< 2.8	< 3.4	< 3.9	< 3.9	< 3.9	< 8.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	1/24/2006	< 5	< 4	< 3	< 3.0	< 3	< 1.9	< 2.4	23	4.6	6.8	< 3.2	8.3	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	4/28/2006	< 5.9	< 4.7	< 3.5	< 2.5	< 3.5	< 2.2	< 2.8	< 3.3	< 3.8	< 3.8	< 3.8	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	7/14/2006	5.8	< 4.5	< 3.3	< 3.3	UJ < 3.3	< 2.1	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	10/20/2006	6	< 4.5	< 3.3	< 3.3	< 3.3	< 2.1	< 2.7	25	9.0	39	15	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	2/19/2007	30	< 4.7	< 3.5	< 3.5	< 3.5	< 2.2	< 2.8	< 3.3	< 3.8	< 3.8	< 3.8	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	2/7/2008	< 5.5	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3	< 2.5	< 3.5	< 3.5	< 7.9	N/A	N/A	N/A	N/A	N/A	N/A
SVP-7	5	1/29/2009	< 79	< 63	< 46	< 46	< 46	< 30	< 37	< 44	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-7	5	1/13/2010	< 75																	

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-8	5	7/13/2006	< 5.8	< 4.6	< 3.4	< 3.4	UJ < 3.4	< 2.2	< 2.7	< 3.2	< 3.7	< 3.7	< 3.7	< 8.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-8	5	10/20/2006	< 5.7	< 4.5	< 3.3	< 3.3	< 3.3	< 2.1	< 2.7	< 6.4	< 4.4	< 18	< 9.4	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-8 dup	5	10/20/2006	< 5.5	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 6.6	< 4.3	< 19	< 9.1	< 7.9	N/A	N/A	N/A	N/A	N/A	N/A
SVP-8	5	2/20/2007	130	< 3.8	< 2.8	< 2.8	< 2.8	< 1.8	< 2.2	< 2.6	< 3.1	< 3.1	< 3.1	< 6.9	N/A	N/A	N/A	N/A	N/A	N/A
SVP-8	5	2/7/2008	< 4.9	< 3.9	< 2.8	< 2.8	< 2.8	< 1.8	< 2.3	< 2.7	< 3.1	< 3.1	< 3.1	< 7.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-8	5	1/29/2009	< 76	< 60	< 44	< 44	< 44	< 29	< 36	< 42	< 49	< 49	< 49	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-8	5	1/14/2010	< 75	< 60	< 44	< 44	< 44	< 28	< 35	< 42	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-9	5	4/13/2005	38	< 4.2	< 3.1	< 3.1	< 3.1	< 2	22	18	3.4	17	4.5	< 7.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	9/13/2005	< 5.9	< 4.7	< 3.5	< 3.5	< 3.5	< 2.2	< 2.8	5.3	< 3.8	6.7	< 3.8	160	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	11/14/2005	< 6.1	< 4.8	< 3.5	< 3.5	< 3.5	< 2.3	< 2.8	< 3.4	< 3.9	< 3.9	< 3.9	< 8.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	1/24/2006	< 5.4	< 4.2	< 3.1	< 3.1	< 3.1	< 2.0	< 2.5	< 3.0	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	4/28/2006	< 5.9	< 4.7	< 3.5	< 3.5	< 2.5	< 2.2	< 2.8	3.8	< 3.8	< 3.8	< 3.8	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	7/13/2006	< 5.6	< 4.4	< 3.2	< 3.2	UJ < 3.2	< 2.1	< 2.6	< 3.1	< 3.6	< 3.6	< 3.6	< 8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	10/20/2006	< 5.6	< 4.4	< 3.2	< 3.2	< 3.2	< 2.1	< 2.6	27	12	57	25	23	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	2/20/2007	< 4.7	< 3.7	< 2.8	< 2.8	< 2.8	< 1.8	< 2.2	< 2.6	< 3.0	< 3.0	< 3.0	< 6.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	2/7/2008	< 5.4	< 4.2	< 3.1	< 3.1	< 3.1	< 2	< 2.5	< 3	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-9	5	1/29/2009	< 70	< 55	< 41	< 41	< 41	< 26	< 33	< 39	< 44	< 44	< 44	< 100	< 110	N/A	N/A	N/A	N/A	N/A
SVP-9	5	1/14/2010	< 82	< 65	< 48	< 48	< 48	< 31	< 38	< 45	< 52	< 52	< 52	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-10	5	4/14/2005	63	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	4.0	< 3.5	6.3	< 3.5	3,600	E	N/A	N/A	N/A	N/A	N/A
SVP-10	5	5/23/2005	130	< 36	< 26	< 26	< 26	< 17	< 21	< 25	< 29	30	< 29	4,700	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	9/13/2005	< 6.1	< 4.8	< 3.5	< 3.5	< 3.5	< 2.3	< 2.8	< 4.4	< 3.9	6.5	< 3.9	250	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	11/14/2005	< 6.1	< 4.8	< 3.5	< 3.5	< 3.5	< 2.3	< 2.8	< 3.4	< 3.9	< 3.9	< 3.9	< 8.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	1/24/2006	< 5.7	< 4.5	< 3.3	< 3.3	< 3.3	< 2.1	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	4/28/2006	< 5.8	< 4.6	< 3.4	< 3.4	< 3.4	< 2.2	< 2.7	< 3.2	< 3.7	< 3.7	< 3.7	< 8.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	7/14/2006	< 5.2	< 4.2	< 3.1	< 3.1	UJ < 3.1	< 2.0	< 2.5	< 2.9	< 3.4	< 3.4	< 3.4	< 7.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	10/20/2006	< 5.9	< 4.7	< 3.5	< 3.5	< 3.5	< 2.2	< 2.8	18	10	45	21	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	3/6/2007	< 4.8	< 3.8	< 2.8	< 2.8	< 2.8	< 1.8	< 2.2	< 2.6	< 3.1	< 3.1	< 3.1	< 7	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	2/13/2008	21	< 4.2	< 3.1	< 3.1	< 3.1	< 2.0	< 2.5	4	< 3.4	3.5	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-10	5	1/29/2009	< 78	< 62	< 46	< 46	< 46	< 29	< 37	< 43	< 50	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-10	5	1/14/2010	< 73	< 58	< 43	< 43	< 43	< 28	< 34	< 41	< 47	< 47	< 47	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-11	5	1/26/2007	< 920	< 730	< 540	< 540	< 540	< 350	650	< 510	1200	3800	1100	< 1300	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	5/14/2007	< 1000	< 800	< 590	< 590	< 590	< 380	20,000	13,000	< 650	880	< 650	< 1500	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	7/19/2007	< 2600	< 2000	< 1500	< 1500	< 1500	< 970	2,400	2,500	< 1600	< 1600	< 1600	< 3700	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	10/3/2007	< 2600	< 2000	< 1500	< 1500	< 1500	< 980	3,100	< 1,400	< 1600	< 1600	< 1600	< 3800	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	2/13/2008	< 920	< 730	< 540	< 540	< 540	< 350.0	980	< 510	< 590	< 590	< 590	< 1300	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	4/16/2008	< 140	< 110	< 80	< 80	< 80	< 52	1,600	< 76	< 88	< 88	< 88	< 200	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	7/22/2008	< 150	< 120	< 89	< 89	< 89	< 57	2,600	< 84	< 97	< 97	< 97	< 220	< 240	N/A	N/A	N/A	N/A	N/A
SVP-11	5	10/14/2008	< 74	< 58	< 43	< 43	< 43	< 28	1,200	< 41	< 47	< 47	< 47	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-11	5	1/29/2009	< 76	< 60	< 44	< 44	< 44	< 29	650	< 42	< 49	< 49	< 49	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-11	5	4/14/2009	< 77	< 61	< 45	< 45	< 45	< 29	1,800	< 43	< 49	< 49	< 49	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-11 ¹	5	7/31/2009	< 82	< 65	< 48	< 48	< 48	< 31	240	< 46	< 52	< 52	< 52	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-11	5	10/9/2009	< 230	< 180	< 130	< 130	< 130	< 86	300	< 130	< 150	< 150	< 150	< 330	N/A	< 0.10	N/A	N/A	N/A	N/A
SVP-11	5	1/12/2010	< 75	< 59	< 44	< 44	< 44	< 28	65	< 41	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-11*	5	5/3/2010*	< 2.7	< 2.1	5.2	< 2	< 1.6	< 1.0	1.7	41	5.6	12	3.6	1,300	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	6/7/2010	< 54	< 43	< 32	< 32	< 32	< 20	450	34	< 35	< 69	< 35	1,500	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	11/15/2010	< 110	< 86	< 63	< 63	< 63	< 41	200	750	< 69	160	< 69	4,900	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	3/10/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	120	45	18	170	91	32	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	5/24/2011	29	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	28	< 2.9	U 5.6	11	9.5	< 15	U	N/A	N/A	N/A	N/A	N/A
SVP-11	5	8/5/2011	12	2.4	2.3	< 1.6	< 1.6	< 1.0	64	4.5	3.5	< 3.5	7.4	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11 dup	5	8/5/2011	< 5.4	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	83	5.3	4.2	< 6.9	8.7	200	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	10/31/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	22	2.6	2.3	5.2	8.2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	2/6/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	26	< 1.5	< 1.7	4.1	2.9	< 6.1	N/A	N/A	83,000	N/A	N/A	N/A
SVP-11 dup	5	2/6/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0												

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-11 dup	5	1/22/2015	< 27	< 21	< 16	< 16	< 16	< 10	110	22.0	< 17	< 35	< 17	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11 dup	5	8/6/2015	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	86.2	2.0	< 1.7	< 9.41	< 11.5	< 3160	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	9/30/2015	< 2.72	< 2.14	< 1.59	< 1.6	< 1.59	< 1.0	51.4	1.7	< 3.4	< 5.46	< 5.63	< 6.15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-11	5	1/28/2016	< 2.72	< 2.14	< 1.59	< 1.6	< 1.59	< 1.0	120	1.9	< 1.7	< 3.5	< 2	< 6.15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	1/26/2007	< 6.6	< 5.3	< 3.9	< 3.9	< 3.9	< 2.5	15	390	73	270	95	< 9.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12 dup	5	1/26/2007	< 6.6	< 5.3	< 3.9	< 3.9	< 3.9	< 2.5	15	410	77	280	95	< 9.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	5/21/2007	< 9.4	< 9.6	< 3.4	< 3.4	< 3.4	< 2.2	< 2.7	< 3.2	< 3.7	< 3.7	< 3.7	< 8.4	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	8/9/2007	< 9.1	< 7.2	< 5.3	< 5.3	< 5.3	< 3.4	< 4.3	< 5.0	< 5.8	< 5.8	< 5.8	< 13	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	10/4/2007	< 12	< 5.5	< 3.1	< 3.1	< 3.1	< 2.0	< 2.5	< 3.0	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	2/8/2008	< 5.4	< 4.2	< 3.1	< 3.1	< 3.1	< 2.0	< 2.5	< 3	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	4/16/2008	< 76	< 60	< 44	< 44	< 44	< 29	< 36	< 42	< 49	< 49	< 49	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	7/22/2008	< 73	< 56	< 41	< 41	< 41	< 27	< 33	< 39	< 45	< 45	< 45	< 210	< 110	N/A	N/A	N/A	N/A	N/A
SVP-12	5	10/14/2008	< 70	< 55	< 41	< 41	< 41	< 26	< 33	< 39	< 45	< 45	< 45	< 100	< 110	N/A	N/A	N/A	N/A	N/A
SVP-12	5	1/29/2009	< 79	< 63	< 46	< 46	< 46	< 30	< 37	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-12	5	4/15/2009	< 81	< 64	< 47	< 47	< 47	< 30	< 38	< 45	< 52	< 52	< 52	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-12 ^m	5	7/30/2009	< 84	< 67	< 49	< 49	< 49	< 32	< 40	< 47	< 54	< 54	< 54	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-12	5	10/7/2009	< 75	< 59	< 44	< 44	< 44	< 28	< 35	< 42	< 48	< 48	< 48	< 110	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-12	5	1/13/2010	< 77	< 61	< 45	< 45	< 45	< 29	< 36	< 42	< 49	< 49	< 49	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-12*	5	5/4/2010*	< 11	< 8.6	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6	< 6.9	< 14	< 6.9	180,000	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	6/7/2010	< 9.5	< 2.1	< 1.6	< 1.6	< 1.6	< 1	< 1.3	16	5.6	16	7.8	840	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	7/28/2010	< 11	< 8.6	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	6.0	< 6.9	< 14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	11/4/2010	< 5.4	< 4.3	< 3.2	< 3.2	< 3.2	< 2	< 2.6	8.3	U < 3.5	8.2	< 3.5	18	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	3/10/2011	< 2.8	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.7	< 1.7	< 3.5	< 1.7	54	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	5/23/2011	< 9.5	< 38	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	8/4/2011	< 22	< 2.3	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	11/18/2011	< 11	< 2.3	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	45	6.5	33	11	20	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	2/13/2012	< 5.3	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	11	N/A	N/A	< 410	N/A	N/A	N/A
SVP-12	5	5/8/2012	< 9.5	< 2.5	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.3	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	910	N/A	N/A	N/A
SVP-12	5	8/22/2012	< 14	< 3.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.2	< 1.7	< 3.5	< 1.7	< 9.3	N/A	N/A	< 410	N/A	N/A	N/A
SVP-12	5	1/3/2013	< 5	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	1.7	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	3/6/2013	< 5.5	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	5/8/2013	< 13	< 2.5	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	7/30/2013	< 18	< 3.5	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	10/30/2013	< 14	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	18	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	1/28/2014	< 4.6	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	7/22/2014	< 15	< 11	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.6	2.3	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	1/22/2015	< 5.5	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	8/5/2015	< 23.7	< 3.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	1/28/2016	< 10.9	< 8.6	< 6.3	< 6.3	< 6.3	< 4.1	420	40.9	654	2940	647	< 24.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	7/18/2016	< 16.6	< 2.1	< 1.8	< 1.8	< 1.8	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-12	5	3/8/2017	< 2.72	< 2.14	< 1.59	< 1.59	< 1.59	< 1.0	< 1.3	0.441	J < 1.73	< 3.47	< 1.73	< 1.24	J	N/A	N/A	N/A	N/A	N/A
SVP-13	5	1/26/2007	< 5.5	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	4.3	140	71	220	69	18	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	5/14/2007	< 8.1	< 4.2	< 3.1	< 3.1	< 3.1	< 2.0	< 2.5	< 2.9	< 3.4	< 3.4	< 3.4	< 7.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	7/20/2007	< 12	< 0.16	< 0.12	< 0.60	< 0.06	< 0.039	0.30	0.34	5.9	9.7	0.76	na	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	10/3/2007	< 7.8	< 4.5	< 3.3	< 3.3	< 3.3	< 2.1	< 2.7	< 3.2	< 3.6	4.8	< 3.6	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	2/8/2008	< 5.4	< 4.2	< 3.1	< 3.1	< 3.1	< 2.0	< 2.5	< 3	< 3.4	< 3.4	< 3.4	< 7.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	4/16/2008	< 69	< 54	< 40	< 40	< 40	< 26	< 32	< 38	< 44	< 44	< 44	< 100	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	7/22/2008	< 81	< 64	< 48	< 48	< 48	< 31	< 38	< 45	< 52	< 52	< 52	< 120	1,800	N/A	N/A	N/A	N/A	N/A
SVP-13	5	10/14/2008	< 73	< 58	< 43	< 43	< 43	< 27	< 34	< 40	< 47	< 47	< 47	< 100	< 120	N/A	N/A	N/A	N/A	N/A
SVP-13	5	1/29/2009	< 81	< 64	< 48	< 48	< 48	< 31	< 38	< 45	< 52	< 52	< 52	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-13	5	4/15/2009	< 82	< 65	< 48	< 48	< 48	< 31	< 38	< 45	< 52	< 52	< 52	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-13	5	7/30/2009	< 88	< 70	< 51	< 51	< 51	< 33	< 41	< 49	< 56	< 56	< 56	< 130	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13 dup	5	7/30/2009</																		

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-13*	5	8/21/2012*	< 27	< 21	< 16	< 16	< 16	< 10.0	< 13	< 15	< 17	< 35	< 17	340,000	N/A	N/A	8,300	N/A	N/A	N/A
SVP-13	5	9/27/2012	< 6.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 53	< 1.7	< 3.5	< 1.7	12,000	N/A	N/A	2,000	N/A	N/A	N/A
SVP-13	5	1/3/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	3/6/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	5/8/2013	< 4.4	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 13.0	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	7/30/2013	< 6.8	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	10/30/2013	< 2.8	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	1/28/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13 dup	5	1/28/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	7/22/2014	< 11	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.6	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13 dup	5	7/22/2014	< 13	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	8.7	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	1/22/2015	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	8/5/2015	< 8.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	2.9	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	1/28/2016	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	25.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	2/23/2016	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	5.78	28	3.98	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	7/18/2016	< 8.9	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-13	5	3/8/2017	1.23	J < 2.14	< 1.59	< 1.59	< 1.59	< 1.0	< 1.3	< 1.51	< 1.73	< 3.47	< 1.73	1.23	J	N/A	N/A	N/A	N/A	N/A
SVP-14	5	9/12/2007	< 6.1	< 4.8	45	< 3.5	< 3.5	< 2.3	22	13	25	60	22	< 8.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	10/4/2007	< 9.9	< 7.8	28	< 5.8	< 5.8	< 4.7	18	6.3	9.7	16	6.7	< 14	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	2/8/2008	< 5.2	< 4.1	9	< 3	< 3	< 1.9	5.9	< 2.9	4.2	6.1	< 3.3	< 7.5	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	4/16/2008	< 79	< 62	< 46	< 46	< 46	< 30	< 37	< 44	< 50	< 50	< 50	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	7/22/2008	< 77	< 61	< 45	< 45	< 45	< 29	< 36	< 43	< 49	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-14	5	10/14/2008	< 77	< 61	< 45	< 45	< 45	< 29	< 36	< 43	< 49	< 49	< 49	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-14	5	1/28/2009	< 75	< 59	< 44	< 44	< 44	< 28	< 35	< 42	< 48	< 48	< 48	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-14	5	4/15/2009	< 81	< 64	< 47	< 47	< 47	< 30	< 38	< 45	< 52	< 52	< 52	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-14 ^o	5	7/27/2009	< 99	< 79	< 58	< 58	< 58	< 37	< 47	< 55	< 64	< 64	< 64	< 140	N/A	< 0.15	N/A	N/A	N/A	N/A
SVP-14	5	10/6/2009	< 75	< 60	< 44	< 44	< 44	< 28	36	< 42	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-14	5	1/12/2010	< 67	< 53	< 39	< 39	< 39	< 25	< 32	< 37	< 43	< 43	< 43	< 97	N/A	< 0.099	N/A	N/A	N/A	N/A
SVP-14	5	5/4/2010	< 2.7	< 2.1	13	< 1.6	< 1.6	< 1	8.0	18	14	38	15	17	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	8/6/2010	< 11	< 8.6	37	< 6.3	< 6.3	< 4.1	19.0	8.3	< 6.9	17	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	11/4/2010	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1	6.7	4.5	U 2.9	11	4.2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	3/10/2011	< 2.7	< 2.1	4.4	< 1.6	< 1.6	< 1.0	2.2	< 1.5	< 1.7	< 3.5	2.4	8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	5/23/2011	< 2.7	< 8.6	U 14	< 1.6	< 1.6	< 1.0	8.3	< 2.1	U 6.9	6.5	2.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	8/4/2011	8.8	2.4	22	< 1.6	< 1.6	< 1.0	12.0	6.8	11	11	4.8	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	10/31/2011	5	< 2.1	13	< 1.6	< 1.6	1.5	6.7	4.9	7.8	10	3.9	71	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	11/18/2011*	< 2.7	< 2.1	11	< 1.6	< 1.6	< 1.0	5.1	7.9	< 1.7	4.8	2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	2/6/2012	< 2.7	< 2.1	4	< 1.6	< 1.6	< 1.0	2.4	3.8	2.7	6.1	< 1.7	12	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	5/8/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14*	5	8/22/2012*	16	130	52	< 7.9	< 7.9	< 5.1	15	9.4	15	< 17	< 8.7	< 31	N/A	N/A	7,800	N/A	N/A	N/A
SVP-14	5	9/27/2012	< 27	< 21	19	< 1.6	< 1.6	< 1.0	13	< 15	< 17	< 35	< 17	< 61	N/A	N/A	7,400	N/A	N/A	N/A
SVP-14	5	1/3/2013	< 2.7	< 2.9	9.9	< 1.6	< 1.6	< 1.0	10	< 1.5	3.7	5.6	2.7	15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	3/6/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	2.5	< 1.5	< 1.7	< 3.5	< 1.7	8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	5/8/2013	< 2.7	< 2.1	23	< 1.6	< 1.6	1.9	13	3.5	< 1.7	10	4.3	18	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	7/30/2013	< 6.8	< 5.4	25	< 4.0	< 4	< 2.6	11	9.0	< 4.3	11	4.8	< 15	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	10/31/2013	< 2.7	< 2.1	13	< 1.6	< 1.6	2.0	5.1	3.1	< 1.7	4.2	2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	1/28/2014	< 2.7	< 2.1	6.3	< 1.6	< 1.6	< 1.0	3.8	1.8	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	7/22/2014	< 2.7	< 170	13	< 1.6	< 1.6	< 1.0	14	12	3.6	13	5.6	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	8/29/2014	< 2.7	< 2.1	40	< 1.6	< 1.6	< 1.0	19	23	6.5	21	8.2	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	1/22/2015	< 2.7	< 2.1	7.5	< 1.6	< 1.6	< 1.0	3.1	2	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	8/5/2015	< 2.7	< 2.1	33.3	< 1.6	< 1.6	4.3	15	10.6	5.4	17.8	7.8	< 7.5	U	N/A	N/A	N/A	N/A	N/A
SVP-14	5	1/28/2016	< 2.7	< 2.1	40.3	< 1.6	< 1.6	51.4	77.5	18.2	92	130	9.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	7/18/2016	< 2.7	< 2.1	17.1	< 1.6	< 1.6	2.8	9.46	9.7	9.67	11	4.95	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-14	5	3/8/2017	< 2.72	< 2.14	7.94	< 1.59	< 1.59	0.991	4.03	0.990	0.725	2.93	1.57	J 2.73	J	N/A	N/A	N/A	N/A	N/A
SVP-14	5	7/13/2017	< 1.51	41.1	22.1	< 1.59	< 1.59	3.44	9.19	8.23	8.17	11.1	5.08	1						

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-15-5'	5	3/9/2011	6.8	230	750	67	30	330	16	26	6.1	18	10	180	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	5/24/2011	15	320	2,200	130	67	510	38	28	3.3	7.8	3.9	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	8/4/2011	26	640	4,400	210	130	2,800	73	87	8.2	17	9.1	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	11/1/2011	< 27	910	4,400	440	99	13,000	73	98	< 17	< 35	< 17	< 61	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	2/13/2012	6	200	1,500	79	31	1,600	16	17	< 1.7	< 3.5	< 1.7	52	N/A	N/A	1,600	110,000	<12,000	<11,000
SVP-15-5**	5	5/8/2012*	< 2.7	20	87	4.0	< 1.6	51	2.3	6.8	< 1.7	< 3.5	< 1.7	16,000	N/A	N/A	<410	N/A	N/A	N/A
SVP-15-5' dup*	5	5/8/2012*	< 2.7	14	63	3.1	< 1.6	38	1.5	4.9	< 1.7	< 3.5	< 1.7	20,000	N/A	N/A	<410	N/A	N/A	N/A
SVP-15-5'	5	6/1/2012	15	510	240	170	63	260	42	72	9.5	61	8.2	< 6.1	N/A	N/A	4,500	N/A	N/A	N/A
SVP-15-5**	5	8/21/2012*	< 27	< 21	< 16	< 16	< 16	< 10	< 13	< 15	< 17	< 35	< 17	390,000	N/A	N/A	18,000	N/A	N/A	N/A
SVP-15-5'	5	9/27/2012	7.5	200	1,600	270	40	6,600	38	90	4.8	8.2	3.6	< 6.1	N/A	N/A	2,200	N/A	N/A	N/A
SVP-15-5'	5	1/2/2013	8.1	170	1,200	150	55	3,600	35	68	3.2	5.2	2.6	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	3/5/2013	< 2.7	< 2.1	8.7	< 1.6	< 1.6	2.8	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	9.3	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	5/8/2013	6.8	140	590	83.0	18	1,100	18	41	3.1	4.8	2.2	27	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5'	5	7/29/2013	< 5.4	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	3.8	< 3.0	< 3.5	< 6.9	< 3.5	< 1,200,000	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	2/13/2012	9.5	440	630	40	9.5	560	11	38	18	69	29	< 6.1	N/A	N/A	1,900	55,000	<12,000	<11,000
SVP-15-5R	5	5/8/2012	49	390	1.7	< 1.6	4	1.4	< 1.3	5.7	10	24	5.2	12	N/A	N/A	1,100	N/A	N/A	N/A
SVP-15-5R	5	8/21/2012	120	480	1.9	< 1.6	< 1.6	< 1.0	< 1.3	3.8	< 1.7	6.1	2.4	< 6.1	N/A	N/A	3,600	N/A	N/A	N/A
SVP-15-5R dup	5	8/21/2012	58	1,100	< 16	< 16	< 16	< 10	< 13	< 15	< 17	< 35	< 17	< 61	N/A	N/A	< 4,100	N/A	N/A	N/A
SVP-15-5R	5	1/2/2013	65	360	< 1.6	< 1.6	5.5	< 1.0	< 1.3	1.8	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	3/5/2013	43	400	< 1.6	< 1.6	3	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	5/8/2013	58	420	< 1.6	< 1.6	3.1	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	20	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R*	5	7/29/2013*	110	860	< 1.6	< 1.6	2.4	< 1.0	1.5	3.8	< 1.7	< 3.5	< 1.7	420	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	8/22/2013	52	400	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	10/29/2013	75	480	< 1.6	< 1.6	5.5	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	1/27/2014	41	400	< 1.6	< 1.6	6.7	< 1.0	< 1.3	< 1.5	< 1.7	9.5	13	17	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	7/21/2014	52	430	79	12	1.9	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	1/22/2015	8.8	390	91	6	< 1.6	2.6	< 1.3	4.9	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	8/5/2015	49.2	1,120	158	11.7	1.8	2.7	< 1.3	4.9	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	1/28/2016	16.6	270	33.5	2.8	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	7/18/2016	45.4	691	44	7.0	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-5R	5	3/8/2017	17	262	17.2	2.84	< 1.59	0.381	J	0.324	J	0.759	J	< 1.73	< 3.47	< 1.73	1.33	J	N/A	N/A
SVP-15-10'	10	8/4/2008	710	1100	540	120	260	560	66	870	190	810	210	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	10/14/2008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	1/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	4/15/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	8/3/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	10/7/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	1/13/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	5/3/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	7/30/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10'	10	11/4/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	2/13/2012	29	700	6.7	7.1	13	19	35	49	21	56	16	< 6.1	N/A	N/A	1,600	13,000	<12,000	<11,000
SVP-15-10R	10	5/8/2012	18	700	550	13	2.3	18	< 1.3	1.8	< 1.7	< 3.5	< 1.7	34	N/A	N/A	1,500	N/A	N/A	N/A
SVP-15-10R	10	8/21/2012	21	800	480	11	< 1.6	11	< 1.3	4.1	< 1.7	< 3.5	< 1.7	18	N/A	N/A	2,200	N/A	N/A	N/A
SVP-15-10R	10	1/2/2013	21	280	75	4.0	3.6	< 1.0	< 1.3	2.3	< 1.7	< 3.5	< 1.7	9.8	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	3/5/2013	11	280	150	5.9	1.7	3.1	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	5/8/2013	23	590	280	9.1	1.7	6.4	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	7/29/2013	34	860	310	12	1.7	7.9	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	10/29/2013	24	700	290	8.3	< 1.6	5.9	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	1/27/2014	14	350	150	4.0	1.6	2.2	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	52	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	7/21/2014	< 2.7	700	< 1.6	< 1.6	2.8	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	1/22/2015	29	390	< 1.6	< 1.6	1.8	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	8/5/2015	133	1000	< 1.6	< 1.6	5.2	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	1/28/2016	52.4	357	< 1.6	< 1.6	5.2	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	205	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	2/23/2016	58.8	402	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.33	< 1.7	< 3.5	< 1.7	6.32	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	7/18/2016	87.7	495	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-15-10R	10	3/9/2017	67.9																	

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-17-5'	5	1/15/2010	< 81	100	< 47	< 47	< 47	< 30	< 38	< 45	< 52	< 52	< 52	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-17-5'	5	4/26/2010	< 2.7	180	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 6.8	< 1.7	< 3.5	< 1.7	< 21	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	7/28/2010	< 2.7	120	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 2.4	< 2.3	< 7.8	< 1.9	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5' dup	5	7/28/2010	< 2.7	140	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	11/5/2010	< 2.7	96	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 16	< 3.6	< 12	< 5.2	< 150	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5' dup	5	11/5/2010	< 5.4	91	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	9	U < 3.5	< 8.2	< 3.5	< 110	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	3/9/2011	< 2.7	96	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 27	< 3.3	< 10	< 3.3	< 6.9	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	5/24/2011	< 11	< 8.6	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6.0	< 6.9	< 14	< 6.9	< 44	U	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	8/5/2011	6.7	170	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3	< 3.5	< 6.9	< 3.5	< 12	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	11/1/2011	3	120	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 23	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5' dup	5	11/1/2011	5	140	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 19	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	2/6/2012	< 2.7	91	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	< 410	N/A	N/A	N/A
SVP-17-5'	5	5/8/2012	2.9	110	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 2.3	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	< 410	N/A	N/A	N/A
SVP-17-5'	5	8/22/2012	< 11	110	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6.0	< 6.9	< 14	< 6.9	< 25	N/A	N/A	< 1,700	N/A	N/A	N/A
SVP-17-5'	5	1/3/2013	< 2.7	150	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	3/5/2013	4.3	110	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	5/8/2013	2.9	120	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 27	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	7/29/2013	3.6	130	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	10/29/2013	< 2.7	64	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.7	< 1.7	< 3.5	< 1.7	< 20	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	1/27/2014	< 2.7	64	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	7/21/2014	8.8	130	< 1.6	< 1.6	< 1.6	< 1.0	< 1.7	17.0	2.5	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	1/23/2015	< 2.7	80	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5' dup	5	1/23/2015	2.7	96	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	8/6/2015	5.1	83.2	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	1/28/2016	< 2.7	36.3	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	7/19/2016	4.08	57.7	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-5'	5	3/9/2017	2.43	J 24.6	< 1.59	< 1.59	< 1.59	< 1.0	< 1.3	< 1.51	< 1.73	< 3.47	< 1.73	1.13	J	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	8/4/2008	500	2,800	< 52	< 52	< 52	< 33	< 42	380	99	400	100	< 130	< 140	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	10/13/2008	98	5,300	< 44	< 44	< 44	< 28	< 35	< 41	< 48	< 48	< 48	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	1/28/2009	< 75	3,400	< 44	< 44	< 44	< 28	< 35	< 41	< 48	< 48	< 48	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	4/14/2009	< 74	3,700	< 43	< 43	< 43	< 28	< 35	< 41	< 48	< 48	< 48	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-17-10' ^f	10	8/3/2009	< 83	3,100	< 49	< 49	< 49	< 31	< 39	< 46	< 53	< 53	< 53	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-17-10'	10	10/8/2009	< 79	3,000	< 46	< 46	< 46	< 30	< 37	< 44	< 51	< 51	< 51	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-17-10'	10	1/15/2010	< 75	2,400	< 44	< 44	< 44	< 28	< 35	< 41	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-17-10' dup	10	1/15/2010	< 74	3,000	< 43	< 43	< 43	< 28	< 35	< 41	< 47	< 47	< 47	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-17-10'	10	4/26/2010	38	2,400	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 12	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	7/30/2010	35	1,500	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	11/5/2010	18	860	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 14	2.4	7.8	3.1	< 20	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	3/9/2011	29	1,100	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 42	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	5/24/2011	27	1,100	< 1.6	< 1.6	< 1.6	< 10.0	< 13	< 15	< 17	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10' dup	10	5/24/2011	36	460	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	8/5/2011	43	1,600	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3.0	< 3.5	< 6.9	< 3.5	< 54	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	11/1/2011	40	1,100	< 1.6	< 1.6	< 1.9	< 1.0	< 1.3	2.8	< 1.7	< 3.5	< 1.7	11	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	2/6/2012	26	1,100	< 1.6	< 1.6	< 2.9	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	910	N/A	N/A	N/A
SVP-17-10'	10	5/8/2012	33	700	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	1,100	N/A	N/A	N/A
SVP-17-10*	10	8/22/2012*	34	750	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	1.7	< 1.7	< 3.5	< 1.7	< 66	N/A	N/A	1,400	N/A	N/A	N/A
SVP-17-10'	10	9/27/2012	31	1,500	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	830	N/A	N/A	N/A
SVP-17-10'	10	1/3/2013	35	590	< 1.6	< 1.6	< 2.4	< 1.0	< 1.3	7.9	< 1.7	< 4.3	< 1.7	< 6.6	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10 dup	10	1/3/2013	33	540	< 1.8	< 1.8	< 1.8	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	3/5/2013	29	270	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10'	10	5/8/2013	25	800	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.8	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-17-10 dup	10	5/8/2013	26	590	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5										

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
<i>Hookston Station Soil Vapor Cleanup Standard:</i>			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>RWQCB Soil Vapor ESL for Residential Land Use:</i>			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
SVP-18-10R	10	1/23/2015	8.1	35	2.7	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-18-10R	10	8/6/2015	10	5.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-18-10R	10	1/28/2016	14.7	29.3	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-18-10R	10	7/19/2016	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-18-10R	10	3/9/2017	4.62	8.59	5.47	0.769	J < 1.59	7.08	0.815	J	< 1.73	< 3.47	< 1.73	3.75	J	N/A	N/A	N/A	N/A	N/A
SVP-18-10R	10	7/12/2017	61.6	9.01	150	J	0.774	J	11.7	< 1.02	0.730	J	< 1.73	< 3.47	< 1.73	2.06	J	N/A	N/A	N/A
SVP-19-5'	5	8/4/2008	180	< 67	< 49	< 49	< 49	< 32	< 40	99	< 54	110	< 54	< 120	< 130	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	10/13/2008	< 77	< 61	< 45	< 45	< 45	< 29	< 36	< 43	< 49	< 50	< 50	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	1/28/2009	< 73	< 58	< 43	< 43	< 43	< 28	< 34	< 41	< 47	< 47	< 47	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	4/14/2009	< 73	< 58	< 43	< 43	< 43	< 28	< 34	< 41	< 47	< 47	< 47	< 110	< 120	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	7/31/2009	< 84	< 67	< 49	< 49	< 49	< 32	< 40	< 47	< 54	< 54	< 54	< 120	N/A	< 0.12	N/A	N/A	N/A	N/A
SVP-19-5'	5	10/7/2009	< 76	< 60	< 44	< 44	< 44	< 29	< 36	< 42	< 49	< 49	< 49	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-19-5'	5	1/15/2010	< 75	< 59	< 44	< 44	< 44	< 28	< 35	< 41	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
SVP-19-5'	5	4/26/2010	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.6	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	7/30/2010	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	4.9	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	11/4/2010	< 11	< 8.6	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6	< 6.9	< 14	< 6.9	< 25	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	3/10/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.8	< 1.7	3.6	< 1.7	340	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	5/24/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 37	U	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	8/5/2011	2.9	32	5.9	< 1.6	4	< 1.0	< 1.3	57	5.2	7.4	4.2	29	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	11/1/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	13	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	2/6/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.6	< 1.7	3.7	< 1.7	27	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	5/8/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.1	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	8/22/2012	< 11	< 8.6	< 6.3	< 6.3	< 6.3	< 4.1	< 5.1	< 6.0	< 6.9	< 14	< 6.9	< 25	N/A	N/A	< 1,700	N/A	N/A	N/A
SVP-19-5'	5	1/3/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	3/5/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	5/8/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5' dup	5	5/8/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	12	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	7/29/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	19	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	10/29/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	1/27/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	8.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	7/21/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	1/23/2015	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	8/5/2015	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.12	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	1/28/2016	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	7/19/2016	< 2.7	2.82	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	3/9/2017	2.44	J < 2.14	< 1.59	< 1.59	< 1.59	< 1.0	0.414	J	21.3	2.06	4.45	1.93	9.83	N/A	N/A	N/A	N/A	N/A
SVP-19-5'	5	7/13/2017	21.3	149	0.715	J < 1.59	0.510	J < 1.02	2.04	0.574	J	0.618	J < 3.47	< 1.73	2.50	J	N/A	N/A	N/A	N/A
SVP-19-5 dup	5	7/13/2017	88.5	6.87	1.94	< 1.59	< 1.59	< 1.02	1.28	1.13	J < 1.73	1.66	J	0.830	J	16.6	N/A	N/A	N/A	N/A
SVP-19-10'	10	8/4/2008	460	< 120	< 86	< 86	< 86	< 55	< 69	430	220	880	240	< 210	< 230	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	1/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	4/14/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	8/3/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	10/7/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	1/15/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	5/3/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	7/30/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SVP-19-10'	10	11/4/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Ambient Air Samples</i>																				
Ambient Air	N/A	4/14/2005	< 5.5	< 4.3	< 3.2	< 3.2	< 3.2	< 2.0	< 2.6	< 3.0	< 3.5	< 3.5	< 3.5	9.2	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	6/14/2005	< 5.6	< 4.4	< 3.2	< 3.2	< 3.2	< 2.1	< 2.6	3.3	< 3.6	< 3.6	< 3.6	< 8.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	9/13/2005	< 5.6	< 4.4	< 3.2	< 3.2	< 3.2	< 2.1	< 2.6	< 3.1	< 3.6	< 3.6	< 3.6	< 8.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	11/14/2005	< 5.7	< 4.5	< 3.3	< 3.3	< 3.3	< 2.1	< 2.7	< 3.2	< 3.6	< 3.6	< 3.6	< 8.2	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	1/24/2006	< 5.9	< 4.7	< 3.5	< 3.5	< 3.5	< 2.2	< 2.8	< 3.3	< 3.8	< 3.8	< 3.8	< 8.6	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	4/28/2006	< 5.6	< 4.4	< 3.2	< 3.2	< 3.2	< 2.1	< 2.6	< 3.3	< 3.6	< 3.6	< 3.6	< 8.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	7/14/2006	< 5.2	< 4.1	< 3	< 3	UJ < 3													

Table 2
Summary of Volatile Organic Compound Detections in Soil Vapor Samples
2017 Five-Year Remedy Effectiveness Review
Hookston Station Site
Pleasant Hill, California

Sample Location	Depth (ft bgs)	Date	PCE (µg/m ³)	TCE (µg/m ³)	cis-1,2-DCE (µg/m ³)	trans-1,2-DCE (µg/m ³)	1,1-DCE (µg/m ³)	Vinyl Chloride (µg/m ³)	Benzene (µg/m ³)	Toluene (µg/m ³)	Ethylbenzene (µg/m ³)	m,p-Xylene (µg/m ³)	o-Xylene (µg/m ³)	2-Propanol (µg/m ³)	1,1-DFA ^(a) (µg/m ³)	Helium ^(c) (%)	TPH Low Fraction (µg/m ³)	Methane (µg/m ³)	Ethane (µg/m ³)	Ethene (µg/m ³)
Hookston Station Soil Vapor Cleanup Standard:			N/A	1,200	7,300	15,000	42,000	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RWQCB Soil Vapor ESL for Residential Land Use:			240	240	4,200	31,000	37,000	4.7	48	160,000	560	52,000 ^b	52,000 ^b	N/A	N/A	N/A	300,000	N/A	N/A	N/A
Ambient Air	N/A	1/29/2009	< 80	< 63	< 47	< 47	< 47	< 30	< 38	< 44	< 51	< 51	< 51	< 120	< 130	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	4/15/2009	< 79	< 62	< 46	< 46	< 46	< 30	< 37	260	< 50	< 50	< 50	< 110	560	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	8/3/2009	< 81	< 64	< 47	< 47	< 47	< 30	< 38	< 45	< 52	< 52	< 52	< 120	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	10/9/2009	< 78	< 62	< 45	< 45	< 45	< 29	< 36	< 43	< 50	< 50	< 50	< 110	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	1/15/2010	< 75	< 59	< 44	< 44	< 44	< 28	< 35	< 41	< 48	< 48	< 48	< 110	N/A	< 0.11	N/A	N/A	N/A	N/A
Ambient Air	N/A	7/30/2010	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1	< 1.3	1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	11/5/2010	< 5.4	< 4.3	< 3.2	< 3.2	< 3.2	< 2	< 2.6	4.1	U < 3.5	< 6.9	< 3.5	25	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	3/9/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	15	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	5/23/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 96	U	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	8/5/2011	< 2.7	2.9	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	110	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	8/18/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	9.4	4.0	22	5.6	17	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	10/31/2011	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	2.0	< 1.7	< 3.5	< 1.7	17	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	2/13/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	20	N/A	N/A	< 410	N/A	N/A	N/A
Ambient Air	N/A	5/9/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	6.4	N/A	N/A	< 410	N/A	N/A	N/A
Ambient Air	N/A	8/22/2012	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	52	N/A	N/A	< 410	N/A	N/A	N/A
Ambient Air	N/A	1/3/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	19	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	3/5/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	19.0	< 1.7	< 3.5	< 1.7	6.9	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	5/8/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	7.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	7/29/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	1.5	< 1.7	< 3.5	< 1.7	150	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	10/29/2013	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	20	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	1/28/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	4.1	< 3.5	< 1.7	79	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	7/22/2014	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	1/22/2015	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	< 1.5	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	8/5/2015	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	3.7	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	1/28/2016	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	2.7	2.8	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	7/18/2016	< 2.7	< 2.1	< 1.6	< 1.6	< 1.6	< 1.0	< 1.3	1.8	< 1.7	< 3.5	< 1.7	< 6.1	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	3/9/2017	1.04	J < 2.14	< 1.59	< 1.59	< 1.59	< 1.0	1.43	16.3	0.994	J < 2.73	J < 1.29	J < 1.12	J	N/A	N/A	N/A	N/A	N/A
Ambient Air	N/A	7/12/2017	< 2.72	1.08	J < 1.59	< 1.59	< 1.59	< 1.02	< 1.28	0.658	J < 1.73	< 3.47	< 1.73	2.09	J	N/A	N/A	N/A	N/A	N/A

Notes:

Results reported in micrograms per cubic meter (µg/m³). Results for selected VOCs are summarized.
Hookston Station Soil Vapor Cleanup Standards are established in the *Final Site Cleanup Requirements for the Hookston Station Site (California Regional Water Quality Control Board, San Francisco Bay Region, 22 November 2006)*
RWQCB ESL = Environmental Screening Level, from California Regional Water Quality Control Board - San Francisco Bay Region, Table SG-1, 22 February 2016.
Highlighting indicates concentrations greater than the Hookston Station Soil Vapor Cleanup Standard or RWQCB ESL (for chemicals without a Hookston Station Soil Vapor Cleanup Goal)
^a 1,1-DFA is used as a leak-detection compound (until July 2009).
^b ESL for total xylenes.
^c Helium used as a leak-detection compound (beginning July 2009).
^d Soil vapor probe was resampled due to the high concentration of leak-detection compound (2-propanol) detected during the sampling event.
^e Soil vapor probe was resampled due to the low volume of sample collected during the quarterly sampling event.
N/A = Not available or not applicable
U = Result is qualified as nondetect because the detected compound is a common laboratory contaminant or was detected in the trip blank
UJ = The nondetect results are qualified as estimated at the reporting limit
J = Detected results are qualified as estimated, biased low
E = Result exceeds instrument calibration range.
V = The sample concentration is too high to evaluate accurate spike recoveries.

Chemicals:

PCE = Tetrachloroethene
TCE = Trichloroethene
cis-1,2-DCE = cis-1,2-dichloroethene
trans-1,2-DCE = trans-1,2-dichloroethene
1,1-DCE = 1,1-dichloroethene
1,1-DFA = 1,1-difluoroethane

Additional VOCs detected:

¹270 µg/m³ of Acetone detected in SVP-1
²81 µg/m³ of Chloroform and 650 µg/m³ of Acetone detected in SVP-2
³120 µg/m³ of Chloroform, 1,400 µg/m³ of Hexane, 230 µg/m³ of Heptane, and 510 µg/m³ of Cyclohexane detected in SVP-3
⁴180 µg/m³ of Chloroform, 1,400 µg/m³ of Hexane, 230 µg/m³ of Heptane, 490 µg/m³ of Cyclohexane, 1,300 µg/m³ of Chloromethane, and 61 µg/m³ of 1,3-Butadiene detected in SVP-3-dup
⁵49 µg/m³ of Carbon Disulfide and 78 µg/m³ of 1,2,4-Trimethylbenzene detected in SVP-4
⁶580 µg/m³ of Chloroform detected in SVP-5
⁷440 µg/m³ of Chloroform, 1,000 µg/m³ of Acetone and 43 µg/m³ of Tetrahydrofuran detected in SVP-6
⁸17,000 µg/m³ of Hexane, 4,700 µg/m³ of Heptane, 30,000 µg/m³ of Cyclohexane and 18,000 µg/m³ of Chloromethane detected in SVP-11
⁹160 µg/m³ of Acetone detected in SVP-12
¹⁰230 µg/m³ of Chloroform, 120 µg/m³ of Hexane and 76 µg/m³ of Heptane detected in SVP-14
¹¹60 µg/m³ of Hexane, 70 µg/m³ of Heptane and 81 µg/m³ of Cyclohexane detected in SVP-15-5'
¹²470 µg/m³ of Chloroform and 250 µg/m³ of Acetone detected in SVP-16-10'
¹³340 µg/m³ of Acetone and 130 µg/m³ of 2-Butanone detected in SVP-17-10'

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)				
					Residential Indoor Air ESL (beginning 2016):					0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
					Previous Residential Indoor Air ESL (through 2015):					0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
Indoor Air Quality Samples:																								
989 Stimel Dr - 1st Floor	989 Stimel Dr	11/22/2005	Living Room		6.5	<0.18	<0.14	ND	<0.068	<0.044	1.1	0.46	<0.14	<0.14	2.2	20	2.0	6.7	2.2	<0.62				
989 Stimel Dr - 2nd Floor	989 Stimel Dr	11/22/2005	Bedroom		7.0	<0.19	<0.14	ND	<0.069	<0.045	1.3	0.26	<0.14	<0.14	2.0	16	1.7	5.5	1.9	<0.63				
992 Bermuda Dr - 1st Floor	992 Bermuda Dr	9/22/2005	Master Bedroom		2.5	<0.16	<0.12	ND	<0.058	<0.037	1.6	<0.16	<0.12	0.12	1.3	5.7	0.83	2.3	0.76	<0.53				
1000 Hampton	1000 Hampton Dr	1/21/2004	Living Room		6.0	1.2	<0.14	ND	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	8/29/2005	Master Bedroom		0.0	<0.14 UJ	<0.11 UJ	ND	<0.053 UJ	<0.034 UJ	0.34 J	0.25 J	<0.11	<0.11 UJ	0.70 J	2.1 J	0.54 J	1.1 J	0.26 J	<0.48 UJ				
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	10/5/2005	Master Bedroom		4.0	1.4	<0.12	ND	<0.061	<0.040	0.45	1.2	<0.12	<0.12	0.90	5.2	1.1	3.8	0.91	<0.56				
1000 Hampton Dr - 1st Floor Duplicate	1000 Hampton Dr	10/5/2005	Master Bedroom		4.0	1.4	<0.12	ND	<0.061	<0.040	0.46	1.3	<0.12	<0.12	0.92	5.4	1.1	3.8	0.95	<0.56				
1000 Hampton Dr - 1st Fl.	1000 Hampton Dr	10/4-5/2006	Master Bedroom		1.5	0.21	<0.095	ND	<0.048	0.028 J	0.23	0.97	<0.097	<0.097	0.68	4.8	0.82	2.6	0.62	<0.43				
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	7/30-31/2009	Master Bedroom		7.5	<0.16	<0.12	ND	<0.060	<0.039	0.24	<0.16	<0.12	0.14	0.40	2.0	0.22	0.51	0.16	<0.55				
1000 Stimel	1000 Stimel Dr	4/12/2004	Master Bedroom		6.0	<0.19	<0.14	ND	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1001 Stimel - 1st Floor	1001 Stimel Dr	9/20-21/2006	Master Bedroom		5.0	<0.15	<0.11	ND	<0.054	<0.035	3.6	<0.15	<0.11	0.12	1.4	7.3	0.94	3.3	1.1	<0.49				
1001 Stimel Dr - 1st Floor	1001 Stimel Dr	8/21-22/2007	Master Bedroom		4.0	<0.14	<0.10	ND	0.092	<0.033	2.4	<0.14	<0.11	0.46	0.70	4.9	0.53	1.5	0.54	<0.47				
1001 Stimel Dr - 1st Floor (DUP)	1001 Stimel Dr	8/21-22/2007	Master Bedroom		3.5	0.17	<0.10	ND	0.098	<0.033	6.8	<0.14	<0.10	0.45	1.1	4.7	0.58	1.5	0.48	<0.46				
1001 Stimel Dr - 1st Floor	1001 Stimel Dr	8/27-28/2008	Master Bedroom		0.0	NA*	NA*	ND	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*				
1001 Stimel Dr - 1st Floor (DUP)	1001 Stimel Dr	8/27-28/2008	Master Bedroom		9.0	<0.35	<0.26	ND	<0.13	<0.083	3.9	<0.35	<0.26	1.4	0.97	8.6	0.98	3.1	1	<1.2				
1001 Stimel Dr - 1st Floor	1001 Stimel Dr	7/20-21/2011	Master Bedroom		5.0	<0.11	0.75	ND	<0.079	<0.030	0.41	<0.11	<0.080	NA	0.80	NA	0.56	NA	NA	NA				
1002 Hampton	1002 Hampton Dr	2/19/2004	Master Bed		6.5	5.0	<0.14	ND	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	8/30/2005	South Bedroom	YES	7.0	0.25	<0.14	ND	<0.069	0.11	0.36	<0.19	<0.14	<0.14	0.65	4.2	0.46	1.1	0.36	<0.63 UJ				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	8/30/2005	Living Room	YES	7.0	<0.19	<0.14	ND	<0.069	<0.045	0.36	<0.19	<0.14	<0.14	0.63	4.0	0.38	1.0	0.29	<0.63 UJ				
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	10/5/2005	South Bedroom	YES	8.5	0.24	<0.15	ND	<0.074	0.072	0.36	<0.20	<0.15	<0.15	1.0	4.2	0.77	2.4	0.84	<0.67				
1002 Hampton Dr - 2nd Floor Duplicate	1002 Hampton Dr	10/5/2005	South Bedroom	YES	8.5	0.25	<0.15	ND	<0.074	0.068	0.37	<0.20	<0.15	<0.15	1.0	4.2	0.76	2.3	0.80	<0.67				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	10/5/2005	Living Room	YES	7.5	0.21	<0.14	ND	<0.071	<0.046	0.38	<0.20	<0.14	<0.14	0.95	4.4	0.70	2.4	0.78	<0.64				
1002 Hampton Ct - 2nd Floor	1002 Hampton Dr	9/13-14/2006	South Bedroom	YES	9.0	0.22	<0.13	ND	<0.064	0.12	<0.22	<0.18	<0.13	<0.13	0.64 U	3.0 U	0.5 U	1.3 U	0.47 U	<0.58				
1002 Hampton Ct - 2nd Fl. Dup	1002 Hampton Dr	9/13-14/2006	South Bedroom	YES	6.0	0.20	<0.11	ND	<0.056	0.13	<0.19	<0.15	<0.11	<0.11	0.51 U	2.9 U	0.46 U	1.2 U	0.4 U	<0.51				
1002 Hampton Ct - 1st Floor	1002 Hampton Dr	9/13-14/2006	Living Room	YES	1.5	0.13	<0.095	ND	<0.048	<0.031	<0.16	<0.13	<0.097	<0.097	0.54 U	3.0 U	0.41 U	1.2 U	0.44 U	<0.43				
1002 Hampton Dr - 2nd Floor Bedroom #2	1002 Hampton Dr	8/29-30/2007	North Bedroom	YES	5.5	7.4	<0.11	ND	<0.055	0.076	0.20	<0.15	<0.11	<0.11	0.68	8.7	1.6	2.7	1.1	<0.50				
1002 Hampton Dr - 2nd Floor Bedroom #2 (DUP)	1002 Hampton Dr	8/29-30/2007	North Bedroom	YES	10.0	7.1	<0.13	ND	<0.067	0.076	<0.23	<0.18	<0.14	<0.14	0.71	9.6	1.6	2.7	1.1	<0.61				
1002 Hampton Dr - 2nd Floor Bedroom #1	1002 Hampton Dr	8/29-30/2007	South Bedroom	YES	3.5	5.0	<0.10	ND	<0.051	0.11	0.20	<0.14	<0.10	<0.10	0.68	7.6	1.3	2.8	1.1	<0.46				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	8/29-30/2007	Living Room	YES	3.0	2.3	<0.10	ND	<0.050	0.041	0.21	<0.14	<0.10	<0.10	1.0	5.4	0.79	2.0	0.74	<0.45				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	10/16-17/2007	North Bedroom	YES	5.5	1.0	<0.11	ND	<0.055	0.044	<0.19	<0.15	<0.11	<0.11	0.80	5.4	0.72	1.6	0.67	<0.50				
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	10/16-17/2007	South Bedroom	YES	2.5	0.75	<0.098	ND	<0.049	0.079	<0.17	<0.14	<0.10	<0.10	0.85	0.53	0.71	1.7	0.67	<0.45				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	10/16-17/2007	Living Room	YES	6.5	0.45	<0.11	ND	<0.057	0.020 J	<0.20	<0.16	<0.12	<0.12	0.76	5.4	0.52	1.3	0.51	<0.52				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	12/27-28/2007	North Bedroom	YES	7.0	5.0	0.18	ND	0.15	0.018 J	<0.20	0.27	0.12	<0.12	1.3	8.0	0.82	3.2	0.98	<0.53				
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	12/27-28/2007	South Bedroom	YES	7.5	0.51	<0.12	ND	<0.060	0.14	<0.20	<0.16	<0.12	<0.12	1.0	4.2	0.54	1.4	0.50	<0.54				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	12/27-28/2007	Living Room	YES	7.0	0.28	<0.12	ND	<0.059	0.012 J	<0.20	<0.16	<0.12	<0.12	1.0	3.6	0.45	1.4	0.50	<0.53				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	5/27-28/2008	North Bedroom	YES	2.5	0.81	<0.098	ND	<0.049	0.036	<0.17	<0.14	<0.10	<0.10	0.5	2.9	0.32	0.8	0.26	<0.45				
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	5/28-29/2008	South Bedroom	YES	5.0	0.65	<0.11	ND	<0.054	0.072	<0.18	<0.15	<0.11	0.11	0.38	2.7	0.28	0.65	0.20	<0.49				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	5/27-28/2008	Living Room	YES	3.0	0.68	<0.10	ND	<0.050	0.022 J	<0.17	<0.14	<0.10	<0.10	0.71	3.3	0.32	0.93	0.28	<0.45				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	7/15-16/2008	North Bedroom	YES	5.0	0.43	<0.11	ND	<0.054	0.039	0.22	<0.15	<0.11	<0.11	0.53	2.3	0.28	0.67	0.27	<0.49				
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	7/15-16/2008	South Bedroom	YES	3.0	0.37	<0.10	ND	<0.050	0.095	<0.17	<0.14	<0.10	0.10	0.49	2.7	0.40	0.89	0.37	<0.45				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	7/15-16/2008	Living Room	YES	1.5	0.29	<0.095	ND	<0.048	0.013 J	<0.16	<0.13	<0.097	<0.097	0.47	1.5	0.18	0.5	0.20	<0.43				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	7/20-21/2009	North Bedroom	YES	6.4	0.16	<0.11	ND	<0.057 UJ	0.027 J	<0.20	<0.16	<0.12	<0.12	0.29	2.3	0.29	0.57	0.20	<0.52				
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	7/20-21/2009	South Bedroom	YES	7.6	<0.16	<0.12	ND	<0.060 UJ	0.067	<0.21	<0.16	<0.12	<0.12	0.25	2.1	0.25	0.51	0.18	<0.55				
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	7/20-21/2009	Living Room	YES	7.2	<0.16	<0.12	ND	<0.059 UJ	<0.038	<0.20	<0.16	<0.12	<0.12	<0.24	1.5	0.21	0.43	0.16	<0.54				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	12/9-10/2009	North Bedroom	YES	5.0	<0.15	<0.11	ND	<0.054	<0.035	0.22	<0.15	<0.11	<0.11	1.8	3.9	0.40	1.0	0.38	<0.49				
1002 Hampton Dr - 2nd Floor Bathroom	1002 Hampton Dr	12/9-10/2009	Bathroom	YES	6.0	<0.15	<0.11	ND	<0.056	<0.036	0.24	<0.15	<0.11	<0.11	2.0	3.9	0.41	1.0	0.36	<0.51				
1002 Hampton Dr - 2nd Floor Attic	1002 Hampton Dr	12/9-10/2009	Attic	YES	4.0	<0.14	<0.10	ND	<0.052	<0.033	0.23	<0.14	<0.11	<0.11	1.4	6.2	0.34	1.0	0.37	<0.47				
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	12/9-10/2009	South Bedroom	YES	5.0	<0.15	<0.11	ND	<0.054	<0.035	0.25	<0.15	<0.11	<0.11	1.8	4.1	0.41	1.1	0.38	<0.49				
1002 Hampton Dr - Living Room	1002 Hampton Dr	12/10-11/2009	Living Room	YES	6.0	<0.15	<0.11	ND	<0.056	<0.036	0.20	<0.15	<0.11	<0.11	2.4	5.2	0.30	0.71	0.26	<0.51				
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	9/20-21/2010	North Bedroom	YES	6.5	0.16	0.55	ND	<0.079	0.039	0.21													

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1002 Hampton Dr - 2nd Floor NBR	1002 Hampton Dr	7/25-26/2016	North Bedroom	YES	-6.0	0.0743 J	<0.0793	<0.0793	<0.0793	0.0325 J	3.11	<0.109	<0.0802	NA	0.419	NA	0.435	NA	NA	NA
1002 Hampton Dr - 2nd Floor SBR	1002 Hampton Dr	7/25-26/2016	South Bedroom	YES	-6.0	0.0481 J	<0.0793	<0.0793	<0.0793	<0.0299	1.81	<0.109	<0.0802	NA	0.436	NA	0.424	NA	NA	NA
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	7/25-26/2016	Living Room	YES	-6.0	<0.107	<0.0793	0.0217 J	<0.0793	<0.0299	1.39	<0.109	<0.0802	NA	0.402	NA	0.39	NA	NA	NA
1002 Hampton Dr - 2nd Floor NBR	1002 Hampton Dr	8/22-23/2016	North Bedroom	YES	-2.0	0.0828 J	<0.0793	0.0692 J	<0.0793	0.0411 J	0.775	<0.109	<0.0802	NA	0.298 J+	NA	0.338	NA	NA	NA
1002 Hampton Dr - 2nd Floor SBR	1002 Hampton Dr	8/22-23/2016	South Bedroom	YES	-16.0	0.175	<0.0793	0.0599 J	<0.0793	0.0840	1.36	<0.109	<0.0802	NA	0.305 J+	NA	0.309	NA	NA	NA
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	8/22-23/2016	Living Room	YES	-6.0	<0.107	<0.0793	0.0624 J	<0.0793	<0.0511	0.609	<0.109	<0.0802	NA	0.296 J+	NA	0.324	NA	NA	NA
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	7/31-8/01/2017	Living Room	YES	-3.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.395	NA	0.334	NA	NA	NA
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	7/31-8/01/2017	Bedroom	YES	0.0	0.0943 J	<0.0793	<0.0793	<0.0793	0.0400 J	0.363	<0.109	<0.0802	NA	0.774	NA	6.27	NA	NA	NA
1002 Hampton Dr - 2nd Floor (dup)	1002 Hampton Dr	7/31-8/01/2017	Bedroom	YES	-5.0	0.0891 J	<0.0793	<0.0793	<0.0793	0.0321 J	0.218	<0.109	<0.0802	NA	0.360	NA	0.662	NA	NA	NA
1002 Hampton Dr - 1st Floor	1002 Hampton Dr.	9/12-13-2017	Living Room	YES	-1.5	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.329	NA	0.308	NA	NA	NA
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr.	9/12-13-2017	Bedroom (North side)	YES	0.0	0.0865 J	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.354	NA	0.366	NA	NA	NA
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr.	9/12-13-2017	Bedroom (Middle)	YES	-7.5	0.0576 J	<0.0793	<0.0793	<0.0793	<0.0511	0.399	<0.109	<0.0802	NA	0.322	NA	0.337	NA	NA	NA
1003 Stimel Dr - 1st Floor	1003 Stimel Dr	7/30-31/2013	Master Bedroom		6.0	0.14	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.54	NA	0.18	NA	NA	NA
1003 Stimel Dr - 1st Floor	1003 Stimel Dr	7/28-29/2014	Master Bedroom		12.0	<0.039	<0.031	ND	<0.021	<0.030	0.28	<0.030	<0.020	NA	0.57	NA	2.10	NA	NA	NA
1003 Stimel Dr - 1st Floor - Dup	1003 Stimel Dr	7/28-29/2014	Master Bedroom		7	<0.039	<0.031	ND	<0.021	<0.030	0.34	<0.030	<0.020	NA	11	NA	3.9	NA	NA	NA
1003 Stimel Dr - 1st Floor	1003 Stimel Dr	9/2-3/2015	Master Bedroom		2.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.32	NA	0.556	NA	NA	NA
1003 Stimel Dr - 1st Floor (dup)	1003 Stimel Dr	9/2-3/2015	Master Bedroom		5.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	0.175	<0.109	<0.0802	NA	0.422	NA	0.706	NA	NA	NA
1003 Stimel Dr - 1st Floor	1003 Stimel Dr	8/22-23/2016	Master Bedroom		-9.0	0.0804 J	<0.0793	0.19	<0.0793	<0.0511	0.0777 J	<0.109	<0.0802	NA	0.336	NA	0.249	NA	NA	NA
1003 Stimel Dr - 1st Floor	1003 Stimel Dr	07/26-27/2017	Master Bedroom		-4.0	0.176	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.400	NA	0.245	NA	NA	NA
1004 Hampton Dr - 1st Floor	1004 Hampton Dr	8/15-16/2007	Bedroom		0.2	2.8	0.090	ND	<0.044	<0.029	0.22	0.22	<0.091	0.32	1.3	14	2.5	8.7	3.1	<0.40
1004 Hampton Dr - 1st Floor (DUP)	1004 Hampton Dr	8/15-16/2007	Bedroom		3.0	1.2	<0.10	ND	<0.050	<0.032	0.19	<0.14	<0.10	0.23	1.1	14	2.3	7.7	2.7	<0.45
1004 Hampton Dr - 1st Floor	1004 Hampton Dr	8/16-17/2012	Bedroom		6.5	0.14	<0.079	ND	<0.079	<0.030	0.88	<0.11	<0.080	NA	0.83	NA	0.74	NA	NA	NA
1004 Hampton Dr - 1st Floor	1004 Hampton Dr	8/20-21/2014	Bedroom		4.0	0.46	<0.031	ND	<0.021	<0.030	11	<0.030	<0.020	NA	0.8	NA	1.70	NA	NA	NA
1004 Hampton Dr - 1st Floor - Dup	1004 Hampton Dr	8/20-21/2014	Bedroom (Dup)		10.0	0.34	<0.031	ND	<0.021	<0.030	8.1	<0.030	<0.020	NA	0.57	NA	1.50	NA	NA	NA
1005 Stimel	1005 Stimel Dr	2/17/2004	Master Bedroom		4.5	0.38	<0.13	ND	<0.064	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	9/6/2005	Family Room		6.5	1.4	<0.14	ND	<0.068	<0.044	0.43	0.47	<0.14	<0.14	1.1	7.6	0.89	2.3	0.54	<0.62 UJ
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	9/6/2005	Bedroom		7.5	1.4	<0.14	ND	<0.071	<0.046	0.45	0.45	<0.14	<0.14	1.1	7.1	0.85	2.2	0.55	<0.64 UJ
1005 Stimel - 2nd Floor	1005 Stimel Dr	9/26-27/2006	Bedroom	YES	0.0	0.17 J	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	0.51 J	0.48 J	<0.092	0.11 J	1.1 J	9.1 J	2.0 J	6.6 J	1.9 J	<0.41 UJ
1005 Stimel - 2nd Floor Dup	1005 Stimel Dr	9/26-27/2006	Bedroom	YES	0.0	0.17 J	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	0.62 J	0.56 J	<0.092	0.11 J	1.6 J	11 J	2.3 J	7.9 J	2.3 J	<0.41 UJ
1005 Stimel - 1st Floor	1005 Stimel Dr	9/26-27/2006	Family Room	YES	2.5	0.19	<0.098	ND	<0.049	<0.032	0.49	0.43	<0.10	0.11	1.1	9.5	2.0	6.2	1.8	<0.45
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	8/29-30/2007	Bedroom	YES	4.5	<0.14	<0.11	ND	<0.053	<0.034	0.22	0.18	<0.11	0.19	0.51	3.4	0.61	2.0	0.66	<0.48
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	8/29-30/2007	Family Room	YES	4.5	<0.14	<0.11	ND	<0.053	<0.034	0.26	0.18	<0.11	<0.11	0.53	4.0	0.61	1.9	0.61	<0.48
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	10/16-17/2008	Family Room	YES	6.0	<0.15	<0.11	ND	<0.056	<0.036	0.26	0.22	<0.11	0.2	1.2	7.3	1.1	3.6	1.0	<0.51 UJ
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	10/16-17/2008	Bedroom	YES	5.0	2.1	<0.11	ND	0.22	<0.035	1.6	1.9	0.11	1.5	1.1	6.8	1.2	3.8	1.1	<0.49 UJ
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	3/24-25/2015	Kitchen		9.0	<0.039	<0.031	ND	<0.021	<0.030	0.27	<0.030	<0.020	NA	0.67	NA	0.87	NA	NA	NA
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	3/24-25/2015	Bedroom		6.0	<0.039	<0.031	ND	<0.021	<0.030	1.5	<0.030	<0.020	NA	0.93	NA	1.3	NA	NA	NA
1005 Stimel Dr - 2nd Floor-Dup	1005 Stimel Dr	3/24-25/2015	Bedroom		6.0	<0.039	<0.031	ND	<0.021	<0.030	1.6	<0.030	<0.020	NA	1.0	NA	1.4	NA	NA	NA
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	3/31-4/1/2015	Kitchen		15.0	<0.039	<0.031	ND	<0.021	<0.030	0.22	<0.030	<0.020	NA	0.64	NA	0.61	NA	NA	NA
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	3/31-4/1/2015	Bedroom		9.0	<0.039	<0.031	ND	<0.021	<0.030	0.31	<0.030	<0.020	NA	1.1	NA	0.78	NA	NA	NA
1006 Hampton	1006 Hampton Dr	2/19/2004	Master Bedroom		6.5	4.3	<0.14	ND	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1006 Hampton Dr - 1st Floor	1006 Hampton Dr	8/23/2005	Living Room		7.0	2.4	<0.14	ND	<0.069	<0.045	0.24	<0.19	<0.14	<0.14	0.96	4.5	0.75	1.9	0.62	<0.63
1006 Hampton Dr - 2nd Floor	1006 Hampton Dr	8/23/2005	Bedroom		8.0	2.6	<0.14	ND	<0.072	<0.047	0.25	<0.20	<0.15	<0.15	0.99	4.3	0.69	1.6	0.55	<0.66
1006 Hampton - 1st Floor	1006 Hampton Dr	9/20-21/2006	Living Room	YES	4.5	0.26	<0.11	ND	<0.053	<0.034	<0.18	<0.15	<0.11	<0.11	0.84	5.5	0.67	2.1	0.76	<0.48
1006 Hampton - 2nd Floor	1006 Hampton Dr	9/20-21/2006	Bedroom	YES	7.0	0.36	<0.12	ND	<0.059	<0.038	<0.20	<0.16	<0.12	<0.12	0.81	5.6	0.86	2.2	0.86	<0.53
1006 Hampton Dr - 1st Fl.	1006 Hampton Dr	8/8-9/2007	Living Room	YES	5.5	0.38	<0.11	ND	<0.055	<0.036	2.6	<0.15	<0.11	0.12	0.52	2.1	0.38	1.2	0.55	<0.50
1006 Hampton Dr - 2nd Fl.	1006 Hampton Dr	8/8-9/2007	Bedroom	YES	3.0	0.31	<0.088	ND	<0.044	<0.028	2.6	<0.12	<0.090	0.12	0.55	2.1	0.63	1.5	0.76	<0.40
1006 Hampton - 1st Floor	1006 Hampton Dr	7/14-15/2008	Living Room	YES	7.0	0.38	<0.12	ND	<0.059	<0.038	0.40	<0.16	<0.12	0.2	0.38	1.6 U	0.29	0.78	0.28	<0.53
1006 Hampton - 2nd Floor	1006 Hampton Dr	7/14-15/2008	Bedroom	YES	7.5	0.25	<0.12	ND	<0.060	<0.039	0.41	<0.16	<0.12	0.23	0.43	1.8 U	0.41	0.95	0.39	<0.55
1006 Hampton Dr - 1st Floor	1006 Hampton Dr	7/29-30/2009	Living Room	YES	8.5	0.58	<0.13	ND	<0.063	<0.041	0.23	<0.17	<0.13	0.16	0.40	1.7	0.23	0.59	0.19	<0.57
1006 Hampton Dr - 2nd Floor	1006 Hampton Dr	7/29-30/2009	Bedroom	YES	9.0	0.85	<0.13	ND	<0.064	<0.041	0.31	<0.18	<0.13	0.30						

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1007 Bermuda Dr - 1st Floor Duplicate	1007 Bermuda Dr	8/23/2005	Living Room		8.5	<0.20	<0.15	ND	<0.074	<0.048	<0.25	<0.20	<0.15	<0.15	3.1	17	1.6	5.8	1.5	1.1 J
1007 Stimel	1007 Stimel Dr	2/26/2004	Master Bed		6.5	2.0	<0.14	ND	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	9/6/2005	Family Room		7.0	0.99	<0.14	ND	<0.069	<0.045	5.2	0.36	<0.14	<0.14	0.95	7.7	0.80	2.2	0.71	<0.63 UJ
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	9/6/2005	Bedroom		8.0	0.62	<0.14	ND	<0.072	<0.047	2.4	0.22	<0.15	<0.15	0.83	6.1	0.61	1.6	0.55	<0.66 UJ
1007 Stimel Dr - 1st Floor Family Room	1007 Stimel Dr	9/18-19/2006	Living Room	YES	4.0	0.68	<0.10	ND	<0.052	<0.033	0.30	0.24	<0.11	<0.11	1.1	5.4	0.86	2.6	0.93	<0.47
1007 Stimel Dr - 2nd Floor Bedroom	1007 Stimel Dr	9/18-19/2006	Bedroom	YES	4.0	0.43	<0.10	ND	<0.052	<0.033	0.23	0.19	<0.11	<0.11	0.93	4.3	0.67	2.1	0.76	<0.47
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	8/23-24/2007	Living Room	YES	3.0	0.31	<0.10	ND	<0.050	0.012 J	0.20	<0.14	<0.10	0.10	2.9	13	1.7	5.7	1.8	<0.45
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	8/23-24/2007	Bedroom	YES	3.0	0.47	<0.10	ND	<0.050	0.014 J	0.19	<0.14	<0.10	<0.10	1.8	12	1.6	5.4	1.7	<0.45
1007 Stimel Dr - Second Floor	1007 Stimel Dr	10/13-14/2008	Bedroom	YES	5.0	0.24	<0.11	ND	<0.056	<0.036	0.19	<0.15	<0.11	<0.11	0.98	6.1	0.73	2.2	0.72	<0.51
1007 Stimel Dr - First Floor	1007 Stimel Dr	10/13-14/2008	Living Room	YES	7.0	0.22	<0.12	ND	<0.059	<0.038	0.21	<0.16	<0.12	<0.12	1.0	5.9	0.77	2.3	0.78	<0.53
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	7/22-23/2009	Living Room	YES	7.4	<0.16	<0.12	ND	<0.060 UJ	<0.038	0.43	<0.16	<0.12	<0.12	0.58	14	0.80	2	0.37	<0.54
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	7/21-22/2009	Bedroom	YES	9.6	<0.18	<0.13	ND	<0.066 UJ	<0.043	<0.23	<0.18	<0.14	<0.14	<0.27	1.3	<0.14	0.34	<0.14	<0.60
1007 Stimel Dr - 1st Floor Dup	1007 Stimel Dr	7/22-23/2009	Living Room	YES	7.0	<0.16	<0.12	ND	<0.059 UJ	<0.038	<0.20	<0.16	<0.12	<0.12	0.34	1.2	0.16	0.4	0.13 J	<0.53
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	8/2-3/2010	Bedroom	YES	7.0	<0.11	0.39	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	0.87	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	8/2-3/2010	Living Room	YES	2.0	<0.11	0.59	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.35	NA	0.61	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	7/26-27/2011	Bedroom	YES	17.0	<0.11	0.67	ND	<0.079	<0.030	0.29	<0.11	<0.080	NA	0.35	NA	1.1	NA	NA	NA
1007 Stimel Dr - 2nd Floor (dup)	1007 Stimel Dr	7/26-27/2011	Bedroom	YES	17.0	<0.11	0.63	ND	<0.079	<0.030	0.24	<0.11	<0.080	NA	0.32	NA	1.0	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	7/26-27/2011	Living Room	YES	15.0	<0.11	0.71	ND	<0.079	0.033	<0.14	<0.11	<0.080	NA	0.35	NA	0.39	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	8/12-13/2013	Bedroom	YES	5.5	<0.11	<0.079	ND	<0.079	<0.030	0.18	<0.11	<0.080	NA	0.35	NA	0.36	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	8/12-13/2013	Family Room	YES	6.0	0.13	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	0.35	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	8/25-26/2014	2nd Floor Bedroom	YES	6.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.23	NA	0.24	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	8/25-26/2014	1st Floor Family Room	YES	7.0	0.2	<0.031	ND	<0.021	<0.030	0.65	<0.030	<0.020	NA	0.28	NA	1.60	NA	NA	NA
1007 Stimel Dr - 1st Floor (Dup)	1007 Stimel Dr	8/25-26/2014	1st Floor Family Room (Dup)	YES	5.0	0.14	<0.031	ND	<0.021	<0.030	0.49	<0.030	<0.020	NA	0.29	NA	1.50	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	8/4-5/2016	Living Room	YES	-6.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.0629 J	<0.109	<0.0802	NA	0.232 J+	NA	0.183	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	8/4-5/2016	Bedroom	YES	-17.0	0.0832 J	<0.0793	<0.0793	<0.0793	<0.0511	0.0560 J	<0.109	<0.0802	NA	0.228 J+	NA	0.205	NA	NA	NA
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	9/14-15/2017	Living Room	YES	-11.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.0808 J	<0.109	<0.0802	NA	0.299	NA	0.229	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	9/14-15/2017	Bedroom	YES	-15.0	0.0643 J	<0.0793	<0.0793	<0.0793	<0.0511	0.228	<0.109	<0.0802	NA	0.320	NA	2.670	NA	NA	NA
1008 Hampton	1008 Hampton Dr	2/25/2004	Master Bedroom		2.5	0.43	<0.12	ND	<0.059	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	9/7/2005	Master Bedroom		3.0	0.57	<0.12	ND	<0.059	<0.038	<0.20	<0.16	<0.12	<0.12	0.86	7.2	0.52	1.4	0.53	<0.54 UJ
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	8/15-16/2007	Master Bedroom		2.0	0.30	<0.97	ND	<0.048	<0.031	<0.16	<0.13	<0.099	0.40	0.90	9.9	0.65	1.6	0.65	<0.44
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	7/20-21/2009	Master Bedroom		0.0	NA**	NA**	ND	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**
1008 Hampton Dr - 1st Floor (resample)	1008 Hampton Dr	8/17-18/2009	Master Bedroom		7.0	0.52	<0.12	ND	<0.059	0.014 J	<0.20	<0.16	<0.12	0.93 J	1.40	5.2	0.51	1.1	0.50	<0.53
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	7/26-27/2011	Master Bedroom		-	<0.11	0.15	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.48	NA	0.33	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	7/23-24/2012	Master Bedroom		10.5	0.12	0.55	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.8	NA	0.78	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	7/31-8/1/2013	Master Bedroom		6.0	0.11	<0.079	ND	<0.079	<0.030	0.16	<0.11	<0.080	NA	0.57	NA	0.78	NA	NA	NA
1008 Hampton Dr - 1st Floor (Dup)	1008 Hampton Dr	7/31-8/1/2013	Master Bedroom		9.0	0.24	<0.079	ND	<0.079	0.041	0.26	<0.11	<0.080	NA	0.54	NA	0.91	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	7/22-23/2014	Master Bedroom		11.0	0.28	<0.031	ND	<0.021	<0.030	1.3	<0.030	<0.020	NA	4.8	NA	26	NA	NA	NA
1008 Hampton Dr - 1st Floor (Dup)	1008 Hampton Dr	7/22-23/2014	Master Bedroom (dup)		11.0	0.24	<0.031	ND	<0.021	<0.030	1.3	<0.030	<0.020	NA	4.2	NA	32	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	8/12-13/2015	Master Bedroom		4.5	0.344 J	<0.0793	<0.0793	<0.0299	0.132 J	0.0407 J	<0.0802	NA	0.516	NA	0.605	NA	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	8/22-23/2016	Master Bedroom	YES	-16.0	0.254	<0.0793	0.0948	<0.0793	<0.0511	0.124 J	<0.109	<0.0802	NA	0.333	NA	0.544	NA	NA	NA
1008 Hampton Drive - 1st Floor	1008 Hampton Drive	8/24-8/25/2017	Master Bedroom		-2.0	0.121	<0.0793	<0.0793	<0.0793	<0.0511	0.100 J	<0.109	<0.0802	NA	0.307	NA	0.851	NA	NA	NA
1008 Hampton Drive - 1st Floor (Dup)	1008 Hampton Drive	8/24-8/25/2017	Master Bedroom		-7.0	0.104 J	<0.0793	<0.0793	<0.0793	<0.0511	0.106 J	<0.109	<0.0802	NA	0.3	NA	1.07	NA	NA	NA
1008 Stimel Dr - 1st Floor	1008 Stimel Dr	11/25-26/2013	Master Bedroom		8.0	<0.11	<0.079	ND	<0.079	<0.051	<0.14	<0.11	<0.080	NA	0.96	NA	0.52	NA	NA	NA
1008 Stimel Dr - 1st Floor (Dup)	1008 Stimel Dr	11/25-26/2013	Master Bedroom		4.5	<0.11	<0.079	ND	<0.079	<0.051	0.68	<0.11	<0.080	NA	1.4	NA	0.82	NA	NA	NA
1008 Stimel Dr - 1st Floor	1008 Stimel Dr	8/22-23/2016	Master Bedroom		-2.5	<0.107	<0.0793	0.0670 J	<0.0793	<0.0511	0.0635 J	<0.109	<0.0802	NA	0.291 J+	NA	0.166	NA	NA	NA
1009 Stimel	1009 Stimel Dr	1/20/2004	Kitchen		5.0	3.5	<0.13	ND	0.067	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1009 Stimel DUP	1009 Stimel Dr	1/20/2004	Kitchen		5.5	3.8	<0.13	ND	0.075	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/8/2005	Master Bedroom	YES	7.5	0.36	<0.14	ND	<0.071	<0.046	0.68	1.3	<0.14	0.29	1.9	8.5	0.66	1.5	0.56	<0.64 UJ
1009 Stimel Dr - 1st Floor Duplicate	1009 Stimel Dr	9/8/2005	Master Bedroom	YES	0.0	0.19 J	<0.11 UJ	ND	<0.053 UJ	<0.034 UJ	0.56 J	1.1 J	<0.11	0.21 J	1.9 J	7.3 J	0.54 J	1.2 J	0.42 J	<0.48 UJ
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/13-14/2006	Master Bedroom	YES	3.0	0.19	<0.10	ND	<0.050	<0.032	0.53	1.8	<0.10	0.24	1.1	22	1.2	3.7	1.3	<0.45
1009 Stimel Drive - 1st Floor	1009 Stimel Dr	8/6-7/2007	Bedroom	YES	3.0	0.15	<0.10	ND	<0.050	<0.032	0.28	0.74	0.							

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1012 Stimel Dr - 1st Floor	1012 Stimel Dr	7/29-30/2009	Bedroom		8.0	<0.17	<0.12	ND	<0.061	<0.040	0.34	<0.17	<0.12	0.85	0.42	2.4	0.28	0.49	0.18	<0.56
1012 Stimel Dr - 1st Floor	1012 Stimel Dr	8/2-3/2010	Bedroom		1.0	<0.11	1.2	ND	<0.079	<0.030	0.22	<0.11	<0.080	NA	0.32	NA	0.24	NA	NA	NA
1012 Stimel Dr - 1st Floor	1012 Stimel Dr	7/20-21/2011	Bedroom		5.0	<0.11	0.48	ND	<0.079	<0.030	2.6	<0.11	<0.080	NA	0.32	NA	0.35	NA	NA	NA
1013 Bermuda	1013 Bermuda Dr	3/16/2004	Living Room		7.0	<0.19	<0.14	ND	<0.070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1013 Bermuda Dr - 2nd Floor	1013 Bermuda Dr	9/7/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.53	3.2	0.52	1.4	0.38	<0.64 UJ
1013 Bermuda Dr - 1st Floor	1013 Bermuda Dr	9/7/2005	Living Room		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.60	5.6	0.40	1.0	0.28	<0.63 UJ
1013 Stimel Dr - 1st Floor	1013 Stimel Dr	8/15-16/2007	Bedroom		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.37	2.6	0.26	0.66	0.24	<0.47
1014 Stimel Dr - 2nd Floor	1014 Stimel Dr	9/7-8/2006	Bedroom		3.5	<0.14	<0.10	ND	<0.051	<0.033	<0.18	1.1	<0.10	<0.10	0.90	4.3	0.72	2.3	0.97	<0.46
1014 Stimel Dr - 1st Floor	1014 Stimel Dr	9/7-8/2006	Living Room		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	0.22	<0.11	<0.11	1.0	5.2	0.85	2.4	0.94	<0.50
1015 Bermuda Dr - 2nd Floor	1015 Bermuda Dr	8/20-21/2009	Bedroom		6.0	<0.15	<0.11	ND	<0.056	0.012 J	<0.19	<0.15	<0.11	<0.11	0.35	1.2	0.16	0.41	0.16	<0.51
1015 Bermuda Dr - 1st Floor	1015 Bermuda Dr	8/20-21/2009	Living Room		5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	0.11 J	0.33	1.4	0.16	0.40	0.14	<0.49
1015 Bermuda Dr - 2nd Floor	1015 Bermuda Dr	7/27-28/2010	Bedroom		-	<0.11	0.52	ND	<0.079	<0.030	0.29	<0.11	<0.080	NA	0.27	NA	0.43	NA	NA	NA
1015 Bermuda Dr - 1st Floor	1015 Bermuda Dr	7/27-28/2010	Living Room		-	<0.11	0.48	ND	<0.079	<0.030	0.31	<0.11	<0.080	NA	0.22	NA	1.2	NA	NA	NA
1015 Bermuda Dr - 1st Floor (dup)	1015 Bermuda Dr	7/27-28/2010	Living Room		-	<0.11	0.55	ND	<0.079	<0.030	0.29	<0.11	<0.080	NA	0.26	NA	1.3	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/22/2005	Master Bedroom		7.0	<0.19	<0.14	ND	0.12	<0.045	<0.24	8.1	<0.14	<0.14	0.48	4.3	0.35	0.84	0.29	<0.63 UJ
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	9/5-6/2006	Master Bedroom		3.0	<0.14	<0.11	ND	<0.053	<0.034	1.2	10	<0.11	<0.11	1.1	5.6	1.0	3.1	1.0	<0.48
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/14-15/2007	Master Bedroom		3.5	<0.14	<0.10	ND	<0.051	<0.033	1.5	7.9	<0.10	<0.10	0.42	2.8	0.42	1.2	0.4	<0.46
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	7/24-25/2008	Master Bedroom		9.5	<0.18	<0.13	ND	0.28	<0.042	<0.22	7.8	<0.13	<0.13	0.46	2.6	0.44	0.96	0.30	<0.60 UJ
1015 Stimel Dr - 1st Floor (duplicate)	1015 Stimel Dr	7/24-25/2008	Master Bedroom		4.5	<0.14	<0.11	ND	0.12	<0.034	0.18 J	6.5	<0.11	<0.11	0.45	2.5	0.44	1.6	0.85	<0.48 UJ
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/17-18/2009	Master Bedroom		7.0	0.25	<0.12	ND	<0.059	<0.038	1.0	3.6	<0.12	<0.12	0.43	1.8	0.42	1.3	0.38	<0.53
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/17-18/2010	Master Bedroom		7.0	<0.11	1.3	ND	<0.079	<0.030	0.15	7.1	<0.080	NA	0.35	NA	0.48	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	7/19-20/2011	Master Bedroom		10.0	<0.11	0.091	ND	<0.079	<0.030	<0.14	0.82	<0.080	NA	0.35	NA	0.36	NA	NA	NA
1015 Stimel Dr - 1st Floor (dup)	1015 Stimel Dr	7/19-20/2011	Master Bedroom		10.0	<0.11	0.40	ND	<0.079	<0.030	1.1	13	<0.080	NA	0.32	NA	0.87	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/16-17/2012	Master Bedroom		6.0	<0.11	<0.079	ND	<0.079	<0.030	0.16	6.0	<0.080	NA	0.38	NA	0.43	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	7/23-24/2013	Master Bedroom		10.0	<0.11	0.27	ND	<0.079	<0.030	0.17	4.5	<0.080	NA	0.32	NA	0.48	NA	NA	NA
1015 Stimel Dr - 1st Floor (dup)	1015 Stimel Dr	7/23-24/2013	Master Bedroom		0.0	<0.11	0.39	ND	<0.079	<0.030	0.16	7.1	<0.080	NA	0.28	NA	0.52	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	7/28-29/2014	Master Bedroom		0.0	<0.039	<0.031	ND	<0.021	<0.030	0.25	6.5	<0.020	NA	0.32	NA	0.56	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/19-20/2015	Master Bedroom		18.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	0.118 J	5.69	<0.0802	NA	0.192	NA	0.278	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/22-23/2016	Master Bedroom		-3.0	<0.107	<0.0793	0.369	<0.0793	<0.0511	0.240	6.4	<0.0802	NA	0.322	NA	0.334	NA	NA	NA
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	07/26-27/2017	Master Bedroom		0.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.102 J	5.59	<0.0802	NA	0.456	NA	1.22	NA	NA	NA
1016 Hampton Dr - 1st Floor	1016 Hampton Dr	8/25/2005	Living Room		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	0.30	<0.14	<0.14	1.1	4.7	0.78	2.6	0.86	<0.64 UJ
1016 Hampton Dr - 2nd Floor	1016 Hampton Dr	8/25/2005	Bedroom/Family Room		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	0.23	<0.15	<0.15	0.93	3.5	0.64	1.9	0.55	<0.66 UJ
1016 Stimel Dr - 1st Floor	1016 Stimel Dr	9/14/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	0.40	<0.14	<0.14	0.46	3.4	0.37	0.83	0.27	<0.64 UJ
1016 Stimel Dr - 1st Floor Duplicate	1016 Stimel Dr	9/14/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	0.39	<0.14	<0.14	0.44	3.3	0.36	0.80	0.26	<0.64 UJ
1016 Stimel Dr - 1st Floor	1016 Stimel Dr	7/30-31/2012	Bedroom		6.0	0.16	<0.079	ND	<0.079	<0.030	0.18	<0.11	<0.080	NA	0.96	NA	2.0	NA	NA	NA
1016 Stimel Dr - 1st Floor (dup)	1016 Stimel Dr	7/30-31/2012	Bedroom		6.0	<0.11	<0.079	ND	<0.079	<0.030	0.29	<0.11	<0.080	NA	0.93	NA	1.3	NA	NA	NA
1016 Stimel Dr - 1st Floor	1016 Stimel Dr	8/12-13/2015	1st Floor		18.0	0.892 J	<0.0793	ND	<0.0793	<0.0299	0.0601 J	0.0320 J	<0.0802	NA	0.367	NA	0.287	NA	NA	NA
1017 Bermuda Dr - 1st Floor	1017 Bermuda Dr	8/30-31/2006	Living Room		0.5	<0.12	<0.092	ND	<0.046	<0.030	16	0.19	<0.094	0.092 J	1.2	16	6.6	13	2.8	<0.42
1017 Bermuda Dr - 2nd Floor	1017 Bermuda Dr	8/30-31/2006	Bedroom		4.5	<0.14	<0.11	ND	<0.053	<0.034	0.21	0.16	<0.11	<0.11	1.3	5.0	2.6	7.7	1.6	<0.48
1017 Bermuda Dr - 1st Fl	1017 Bermuda Dr	8/8-9/2007	Living Room		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.51	2.3	0.39	1.2	0.37	<0.47
1017 Bermuda Dr - 2nd Fl	1017 Bermuda Dr	8/8-9/2007	Bedroom		2.5	<0.13	<0.098	ND	<0.049	<0.032	<0.17	<0.14	<0.10	<0.10	0.66	3.4	0.72	2.0	0.67	<0.45
1017 Bermuda Dr - 1st Fl Dup	1017 Bermuda Dr	8/8-9/2007	Living Room		1.0	<0.13	<0.094	ND	<0.047	<0.030	<0.16	<0.13	<0.096	<0.096	0.47	2.2	0.38	1.2	0.38	<0.42
1017 Bermuda Dr - 2nd Floor	1017 Bermuda Dr	7/15-16/2008	Bedroom		2.5	<0.13	<0.098	ND	<0.049	<0.032	<0.17	<0.14	<0.10	0.26	0.61	1.9	0.28	0.77	0.26	<0.45
1017 Bermuda Dr - 2nd Floor (duplicate)	1017 Bermuda Dr	7/15-16/2008	Bedroom		0.0	<0.12	<0.089	ND	<0.044	<0.029	<0.15	<0.12	<0.091	0.32	0.73	1.9	0.34	0.87	0.3	<0.40
1017 Bermuda Dr - 1st Floor	1017 Bermuda Dr	7/15-16/2008	Living Room		4.0	0.61	<0.21	ND	<0.10	<0.067	<0.36	<0.28	<0.21	<0.21	0.74	2.2	0.33	0.93	0.33	<0.94
1017 Bermuda Dr - 2nd Floor	1017 Bermuda Dr	8/11-12/2010	Bedroom		13	<0.11	0.33	ND	<0.079	<0.030	<0.14	0.11	<0.080	NA	0.54	NA	0.91	NA	NA	NA
1017 Bermuda Dr - 1st Floor	1017 Bermuda Dr	8/11-12/2010	Living Room		6.0	<0.11	0.40	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.57	NA	0.69	NA	NA	NA
1018 Bermuda Dr - 1st Floor	1018 Bermuda Dr	8/31/2005	Family Room		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.69	3.0	0.43	1.2	0.37	<0.63 UJ
1018 Bermuda Dr - 2nd Floor	1018 Bermuda Dr	8/31/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.72	2.8	0.40	1.1	0.35	<0.64 UJ
1020 Bermuda Dr - 1st Floor	1020 Bermuda Dr	9/11-12/2006	Bedroom		1.5	1.2	<0.095	ND	<0.048	<0.031	2.1	1.5	<0.097	<0.097	1.7	31	1.1	3.4	1.3	<0.43
1020 Bermuda Dr - 1st Floor	1020 Bermuda Dr	8/15-1																		

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1024 Bermuda - 1st Floor Bedroom Duplicate	1024 Bermuda Dr	7/12-13/2007	Master Bedroom		4.0	0.33	<0.10	ND	<0.052	<0.033	0.63	0.27	<0.11	0.94	0.36	4.5	0.29	0.63	0.20	<0.47
1024 Bermuda - Garage	1024 Bermuda Dr	7/12-13/2007	Garage		1.5	0.46	<0.095	ND	<0.048	<0.031	<0.16	0.38	<0.097	<0.097	0.26	9.8	1.4	6.1	1.6	<0.43
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/16-17/2008	Master Bedroom		3.0	<1.4	<1.0	ND	<0.50	<0.32	1.8	<1.4	<1.0	48	<2.0	11	<1.1	<2.2	<1.1	<4.5
1024 Bermuda Dr - 1st Floor (duplicate)	1024 Bermuda Dr	7/16-17/2008	Master Bedroom		5.0	<0.97	<0.72	ND	<0.36	<0.23	1.5	<0.99	<0.73	41	<1.4	10	<0.79	1.7	<0.79	<3.3
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/27-28/2009	Master Bedroom		5.0	<0.29	<0.22	ND	<0.11	<0.070	0.62	<0.30	<0.22	0.40	1.2	4.4	0.59	1.4	0.69	<0.98
1024 Bermuda Dr - 1st Floor (dup)	1024 Bermuda Dr	7/27-28/2009	Master Bedroom		4.5	<0.48	<0.35	ND	<0.18	<0.11	0.62	<0.49	<0.36	0.39	1.0	4.0	0.55	1.5	0.51	<1.6
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	9/20-21/2010	Master Bedroom		5.0	0.14	0.75	ND	<0.079	<0.030	0.29	0.13	<0.080	NA	0.38	NA	0.38	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	8/15-16/2011	Master Bedroom		11	<0.11	0.14	ND	0.099	<0.030	16.0	<0.11	<0.080	NA	0.38	NA	11.0	NA	NA	NA
1024 Bermuda Dr - 1st Floor (dup)	1024 Bermuda Dr	8/15-16/2011	Master Bedroom		11	<0.11	0.19	ND	<0.079	<0.030	15.0	<0.11	<0.080	NA	0.45	NA	10.0	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/12-13/2012	Master Bedroom		6.0	0.34	0.71	ND	<0.079	<0.030	1.1	<0.11	<0.080	NA	0.64	NA	0.61	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/22-23/2013	Master Bedroom		3.0	<0.11	<0.079	ND	<0.079	<0.030	7.14	<0.109	<0.0802	NA	0.22	NA	7.80	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/22-23/2014	Master Bedroom		3.0	0.16	1.0	ND	<0.021	<0.030	0.61	<0.030	<0.020	NA	0.61	NA	2.1	NA	NA	NA
1024 Bermuda Dr - 1st Floor (Dup)	1024 Bermuda Dr	7/22-23/2014	Master Bedroom		5.0	0.29	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.63	NA	0.43	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	8/12-13/2015	Master Bedroom		6.5	0.331	<0.0793	<0.0793	<0.0793	<0.0299	7.14	<0.109	<0.0802	NA	0.198	NA	1.68	NA	NA	NA
1024 Bermuda Dr - 1st Floor (dup)	1024 Bermuda Dr	8/12-13/2015	Master Bedroom		6.5	0.377	<0.0793	<0.0793	<0.0793	<0.0299	3.7	0.0556 J	<0.0802	NA	0.388	NA	2.19	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/26-27/2016	Master Bedroom		-6.0	0.215	<0.0793	0.11	<0.0793	<0.0299	0.199	0.0530 J	<0.0802	NA	0.906	NA	0.903	NA	NA	NA
1024 Bermuda Dr - 1st Floor (dup)	1024 Bermuda Dr	7/26-27/2016	Master Bedroom		-6.0	0.196	<0.0793	0.09	<0.0793	<0.0299	0.2	0.0503 J	<0.0802	NA	1.13	NA	2.09	NA	NA	NA
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/26-27/2017	Master Bedroom		-8.0	0.158	<0.0793	<0.0793	<0.0793	<0.0511	0.101 J	<0.109	<0.0802	NA	0.527	NA	1.57	NA	NA	NA
1024 Stimel Dr - 1st Floor	1024 Stimel Dr	9/7-8/2006	Master Bedroom		2.5	<0.13	<0.098	ND	<0.049	<0.032	<0.17	<0.14	<0.10	<0.10	0.22	<0.093	<0.11	0.22	<0.11	<0.45
1024 Stimel Dr - 2nd Fl.	1024 Stimel Dr	9/7-8/2006	Bedroom		2.5	<0.13	<0.098	ND	<0.049	<0.032	0.81	0.14	<0.10	0.33	1.2	8.4	1.2	4.7	1.6	<0.45
1025 Bermuda Dr - 1st Floor	1025 Bermuda Dr	8/30/2005	Master Bedroom		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	2.1	20	2.2	9.2	2.3	<0.63
1027 Bermuda Dr - 2nd Floor	1027 Bermuda Dr	9/6/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	0.33	0.39	<0.14	0.16	1.40	11	0.89	2.3	0.67	<0.64 UJ
1027 Bermuda Dr - 1st Floor	1027 Bermuda Dr	9/6/2005	Living Room		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	0.48	<0.14	0.21	1.3	13	0.85	2.1	0.62	<0.64 UJ
1029 Stimel Dr - 1st Floor	1029 Stimel Dr	7/19/2006	Master Bedroom		3.5	<0.16	<0.12	ND	<0.060	<0.39	2.4	<0.16	<0.12	0.15	0.61	4.0	0.90	2.5	1.0	<0.55
1029 Stimel Dr - 1st Floor Dup	1029 Stimel Dr	7/19/2006	Master Bedroom		3.0	0.35	<0.12	ND	0.078	<0.038	2.4	<0.16	<0.12	0.17	0.64	4.2	0.96	2.6	1.1	<0.54
1033 Bermuda Dr - 2nd Floor	1033 Bermuda Dr	9/7/2005	Bedroom		8.0	<0.20	<0.14	ND	<0.072	<0.047	1.1	<0.20	<0.15	<0.15	0.54	9.0	0.56	1.1	0.32	<0.66 UJ
1033 Bermuda Dr - 1st Floor	1033 Bermuda Dr	9/7/2005	Living Room		7.0	<0.19	<0.14	ND	<0.069	<0.045	1.1	0.20	<0.14	<0.14	0.62	3.3	0.39	1.0	0.31	<0.63 UJ
1039 Stimel Dr - 2nd Floor	1039 Stimel Dr	1/11/2006	Bedroom		6.5	<0.18	<0.14	ND	<0.068	<0.044	0.26	0.20	<0.14	0.60	1.0	8.8	1.2	2.9	1.2	<0.62
1039 Stimel Dr - 1st Floor	1039 Stimel Dr	1/11/2006	Living Room		5.0	<0.17	<0.13	ND	<0.064	<0.041	0.25	0.24	<0.13	0.25	1.0	6.4	0.80	2.1	0.80	<0.58
1040 Stimel Dr - 1st Floor	1040 Stimel Dr	9/6/2005	Master Bedroom		6.5	<0.18	<0.14	ND	<0.068	<0.044	0.37	<0.19	<0.14	<0.14	0.57	6.3	0.32	0.77	0.24	<0.62 UJ
1040 Stimel Dr - 1st Floor Duplicate	1040 Stimel Dr	9/6/2005	Master Bedroom		6.5	<0.18	<0.14	ND	<0.068	<0.044	0.40	<0.19	<0.14	<0.14	0.56	6.2	0.33	0.76	0.23	<0.62 UJ
1043 Stimel Dr - 1st Floor	1043 Stimel Dr	9/8/2005	Master Bedroom		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.34	1.1	<0.15	0.32	<0.15	<0.63 UJ
1058 Bancroft Rd - 2nd Floor	1058 Bancroft Rd	9/8/2005	Master Bedroom		8.5	<0.20	<0.15	ND	<0.074	<0.048	<0.25	0.22	<0.15	0.27	0.45	9.2	0.69	2.0	0.51	<0.67 UJ
1058 Bancroft Rd - 2nd Floor Duplicate	1058 Bancroft Rd	9/8/2005	Master Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	0.22	<0.14	0.24	0.48	9.7	0.69	2.0	0.51	<0.64 UJ
1058 Bancroft Rd - 1st Floor	1058 Bancroft Rd	9/8/2005	Living Room		3.0	<0.16	<0.12	ND	<0.059	<0.038	<0.20	0.17	<0.12	0.21	0.45	8.9	0.71	2.1	0.54	<0.54 UJ
1200 Thames Dr - 2nd Floor	1200 Thames Dr	8/24/2005	Master Bedroom		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.52	3.9	0.38	0.98	0.29	<0.63 UJ
1200 Thames Dr - 1st Floor Duplicate	1200 Thames Dr	8/24/2005	Master Bedroom		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.58	3.9	0.39	0.99	0.31	<0.63 UJ
1200 Thames - 1st Floor	1200 Thames Dr	9/28-29/2006	Master Bedroom		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	1.3	6.7	0.95	3.2	1.1	<0.47	
1201 Thames Dr - 1st Floor	1201 Thames Dr	8/21-22/2007	Bedroom		3.5	<0.14	<0.10	ND	<0.051	<0.033	4.7	0.52	<0.10	<0.10	0.88	4.1	0.58	1.8	0.62	<0.46
1204 Hookston	1204 Hookston Rd	2/19/2004	Living Room		6.0	<0.18	<0.14	ND	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1208 Hookston	1208 Hookston Rd	1/20/2004	Living Room		4.5	0.19	<0.13	ND	0.064	NA	0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
1208 Hookston DUP	1208 Hookston Rd	1/20/2004	Living Room		4.5	0.18	<0.13	ND	0.062 J	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA
1210 Thames Dr - 1st Floor	1210 Thames Drive	8/22/2005	Nursery		7.5	0.40	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.87	8.4	0.89	2.2	0.82	<0.64 UJ
1210 Thames Dr - 1st Floor Duplicate	1210 Thames Drive	8/22/2005	Nursery		8.0	0.40	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	0.86	7.9	0.87	2.2	0.88	<0.66 UJ
1210 Thames Dr - 1st Floor	1210 Thames Drive	10/10-11/2007	Master Bedroom		4.0	0.32	<0.10	ND	<0.052	<0.033	<0.18	0.16	<0.11	0.25	0.58	2.7	0.34	0.98	0.48	<0.47
1210 Thames Dr - 1st Floor	1210 Thames Dr	8/14-15/2008	Master Bedroom		7.0	<0.26	<0.20	ND	<0.098	<0.063	<0.34	<0.27	<0.20	0.84	0.90	5.7	0.50	1.3	0.61	<0.89
1210 Thames Dr - 1st Floor	1210 Thames Dr	8/15-16/2013	Dining Room		6.0	<0.11	<0.079	ND	<0.079	<0.030	2.6	<0.11	<0.080	NA	0.77	NA	0.48	NA	NA	NA
1211 Thames Dr - 1st Floor Bedroom	1211 Thames Dr	9/18-19/2006	Bedroom		2.0	<0.13	<0.097	ND	<0.048	<0.031	0.52	0.39	<0.099	3.0	1.0	8.1	0.63	1.7	0.73	<0.44
1211 Thames Dr - 1st Floor Bedroom DUP	1211 Thames Dr	9/18-19/2006	Bedroom		6.5	<0.16	<0.11	ND	<0.057	<0.037	0.56	0.41	<0.12	3.4	1.1	8.3	0.65	1.7	0.73	<0.52
1211 Thames Dr - 1st Floor	1211 Thames Dr	12/6-7/2007	Master Bedroom		9.0	<0.17	<0.13	ND	<0.064	<0.041	0.32	0.32	<0.13	5.4	1.2	8.9	0.63	1.8	0.68	<0.58
1211 Thames Dr - 1st Floor	1211 Thames Dr	8/17-18/2009	Master Bedroom		8.5	<0.17	<0.13													

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1220 Stimmel Ct - 1st Floor (Dup)	1220 Stimmel Ct	8/14-15/2013	Dining Room		7.0	0.14	<0.079	ND	<0.079	<0.030	0.37	0.71	<0.080	NA	0.38	NA	2.3	NA	NA	NA
1220 Stimmel Ct - 1st Floor	1220 Stimmel Ct	8/17-18/2015	Dining Room		4.5	0.0941 J	<0.0793	<0.0793	<0.0793	<0.0299	0.193	0.141	<0.0802	NA	0.873	NA	0.864	NA	NA	NA
1220 Stimmel Ct - 2nd Floor	1220 Stimmel Ct	8/17-18/2015	Bedroom		8.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	0.118 J	0.189	<0.0802	NA	0.501	NA	1.64	NA	NA	NA
1220 Stimmel Ct - 1st Floor	1220 Stimmel Ct	8/4-5/2016	Dining Room		-6.0	0.0734 J	<0.0793	<0.0793	<0.0793	<0.0511	0.148	0.0761 J	<0.0802	NA	0.218 J+	NA	0.57	NA	NA	NA
1220 Stimmel Ct - 2nd Floor	1220 Stimmel Ct	8/4-5/2016	Bedroom		-8.0	0.151	<0.0793	<0.0793	<0.0793	<0.0511	0.151	0.26	<0.0802	NA	0.220 J+	NA	0.485	NA	NA	NA
1220 Stimmel Ct - 1st Floor	1220 Stimmel Ct	07/26-27/2017	Bedroom		-6.0	0.541	<0.0793	<0.0793	<0.0793	<0.0511	0.128 J	0.0733 J	<0.0802	NA	0.441	NA	1.53	NA	NA	NA
1220 Stimmel Ct - 2nd Floor	1220 Stimmel Ct	07/26-27/2017	Bedroom		-8.0	0.102 J	<0.0793	<0.0793	<0.0793	<0.0511	0.139	0.303	<0.0802	NA	0.587	NA	0.980	NA	NA	NA
1220 Stimmel Ct - 2nd Floor (Dup)	1220 Stimmel Ct	07/26-27/2017	Bedroom		-11.0	0.110	<0.0793	<0.0793	<0.0793	<0.0511	0.250	0.314	<0.0802	NA	0.416	NA	1.05	NA	NA	NA
1220 Stimmel Ct - 1st Floor	1220 Stimmel Ct	8/24-8/25/2017	Kitchen		-7.0	0.0834 J	<0.0793	<0.0793	<0.0793	<0.0511	0.494	<0.109	<0.0802	NA	0.35	NA	0.702	NA	NA	NA
1220 Stimmel Ct - 2nd Floor	1220 Stimmel Ct	8/24-8/25/2017	Office		0.0	0.155	<0.0793	<0.0793	<0.0793	<0.0511	0.158	0.133	<0.0802	NA	0.352	NA	0.547	NA	NA	NA
1220 Thames	1220 Thames Dr	2/19/2004	Master Bedroom		2.5	3.1	<0.12	ND	<0.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/30/2005	Family Room	YES	7.5	<0.19	<0.14	ND	<0.071	<0.046	0.45	0.84	<0.14	<0.14	1.6	19	1.8	6.8	2.0	<0.64 UJ
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/30/2005	Bedroom	YES	0.0	<0.14 UJ	<0.11 UJ	ND	<0.053 UJ	<0.034 UJ	0.37 J	0.82 J	<0.11	<0.11 UJ	1.3 J	9.9 J	1.2 J	4.8 J	1.3 J	<0.48 UJ
1220 Thames Dr - 2nd Floor Duplicate	1220 Thames Dr	8/30/2005	Bedroom	YES	7.5	<0.19	<0.14	ND	<0.071	<0.046	0.42	1.3	<0.14	<0.14	1.3	11	1.3	4.9	1.4	<0.64 UJ
1220 Thames - 1st Floor	1220 Thames Dr	9/20-21/2006	Family Room	YES	3.5	<0.14	<0.10	ND	<0.051	<0.033	0.48	0.51	<0.10	0.17	1.4	18	1.4	5.2	1.8	<0.46
1220 Thames - 2nd Floor	1220 Thames Dr	9/20-21/2006	Bedroom	YES	6.0	<0.15	<0.11	ND	<0.056	<0.036	0.45	0.47	<0.11	<0.11	1.5	14	1.4	5.0	1.7	<0.51
1220 Thames Dr First FL	1220 Thames Dr	8/8-9/2007	Family Room	YES	3.5	<0.14	<0.10	ND	<0.051	<0.033	<0.18	0.24	<0.10	0.14	1.1	8.1	1.3	4.6	1.6	<0.46
1220 Thames Dr 2nd FL	1220 Thames Dr	8/8-9/2007	Bedroom	YES	3.5	<0.14	<0.10	ND	<0.051	<0.033	0.53	0.31	<0.10	0.12	0.97	8.4	1.6	5.4	2.0	<0.46
1220 Thames Dr - 1st Floor	1220 Thames Dr	7/14-15/2008	Family Room	YES	5.5	<0.15	<0.11	ND	<0.055	<0.036	0.25	0.2	<0.11	0.12	0.80	4.0	0.43	1.4	0.48	<0.50
1220 Thames Dr - 2nd Floor	1220 Thames Dr	7/14-15/2008	Bedroom	YES	0.5	<0.12	<0.092	ND	<0.046	<0.030	0.43	0.24	<0.094	0.16	0.89	7.0	0.71	2.2	0.86	<0.42
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/5-6/2009	Family Room	YES	6.5	<0.16	<0.11	ND	<0.057	<0.037	<0.20	0.24	<0.12	0.23 J+	0.85	4.50	0.40	1.2	0.38	<0.52
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/5-6/2009	Bedroom	YES	0.0	NA**	NA**	ND	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**
1220 Thames Dr - 2nd Floor (Dup)	1220 Thames Dr	8/5-6/2009	Bedroom	YES	9.0	<0.17	<0.13	ND	<0.064	<0.041	<0.22	0.32	<0.13	0.14	1.1	6.9	0.50	1.5	0.46	<0.58
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/5-6/2010	Family Room	YES	NA*	NA*	NA*	ND	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/5-6/2010	Bedroom	YES	0.0	<0.11	<0.079	ND	<0.079	<0.030	0.20	<0.11	<0.080	NA	0.28	NA	0.21	NA	NA	NA
1220 Thames Dr - 1st Floor (resample)	1220 Thames Dr	8/25-26/2010	Family Room	YES	6.0	<0.11	0.21	ND	<0.079	<0.030	0.38	0.24	<0.080	NA	0.89	NA	0.78	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	7/12-13/2011	Family Room	YES	1.0	<0.11	0.55	ND	<0.079	<0.030	0.67	0.12	<0.080	NA	1.20	NA	2.0	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	7/12-13/2011	Bedroom	YES	3.0	<0.11	0.16	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.54	NA	0.61	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	7/30-31/2012	Family Room	YES	9.0	0.31	<0.079	ND	<0.079	<0.030	0.22	0.16	<0.080	NA	1.9	NA	3.0	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	7/30-31/2012	Bedroom	YES	6.0	0.44	<0.079	ND	<0.079	<0.030	0.18	0.19	<0.080	NA	2.3	NA	4.8	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	7/22-23/2013	Family Room	YES	7.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	0.21	<0.080	NA	0.70	NA	0.82	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	7/22-23/2013	Bedroom	YES	8.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	0.14	<0.080	NA	0.51	NA	0.48	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	7/21-22/2014	Family Room	YES	7.5	<0.039	<0.031	ND	<0.021	<0.030	<0.031	0.17	<0.020	NA	0.48	NA	0.43	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	7/21-22/2014	Bedroom	YES	0.0	<0.039	<0.031	ND	<0.021	<0.030	0.16	0.18	<0.020	NA	0.23	NA	0.35	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/13-14/2015	1st Floor	YES	4.5	0.115	<0.0793	<0.0793	<0.0793	<0.0299	0.347	0.192	<0.0802	NA	0.506	NA	0.565	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/13-14/2015	2nd Floor	YES	8.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	0.313	0.165	<0.0802	NA	0.467	NA	0.481	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/23-24/2016	Living Room	YES	-6.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.121 J	0.184	<0.0802	NA	0.661	NA	0.860	NA	NA	NA
1220 Thames Dr - 1st Floor (dup)	1220 Thames Dr	8/23-24/2016	Living Room	YES	-8.5	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.280	0.172	<0.0802	NA	0.735	NA	0.858	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/23-24/2016	Bedroom	YES	-7.5	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.134 J	0.184	<0.0802	NA	0.758	NA	0.955	NA	NA	NA
1220 Thames Dr - 1st Floor	1220 Thames Dr	9/12-13/2017	Living Room	YES	0.0	0.0885 J	<0.0793	<0.0793	<0.0793	<0.0511	<0.161 U	0.212	<0.0802	NA	<0.359 U	NA	0.491	NA	NA	NA
1220 Thames Dr - 1st Floor (Dup)	1220 Thames Dr	9/12-13/2017	Living Room	YES	-6.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.0997 U	0.146	<0.0802	NA	<0.356 U	NA	0.388	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	9/12-13/2017	Bedroom	YES	-2.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.0683 U	0.0752 J	<0.0802	NA	<0.292 U	NA	0.299	NA	NA	NA
1221 Hookston Road	1221 Hookston Rd	9/10/2004	Master Bedroom		7.0	0.54	<0.14	ND	<0.070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1221 Hookston Road (duplicate)	1221 Hookston Rd	9/10/2004	Master Bedroom		7.0	0.52	<0.14	ND	<0.070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1221 Hookston Rd - 1st Floor Bedroom	1221 Hookston Rd	11/29/2005	Bedroom		7.5	0.83	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	0.50	1.4	11	0.69	2.0	0.66	<0.64
1221 Hookston Rd - 1st Floor Living Room	1221 Hookston Rd	11/29/2005	Living Room		7.5	1.1	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	0.56	1.5	9.6	0.68	2.0	0.73	<0.64
1221 Hookston - 1st Floor BR	1221 Hookston Rd	9/28-29/2006	Bedroom		3.0	0.37	<0.10	ND	<0.050	<0.032	0.28	<0.14	<0.10	0.36	1.0	18	1.8	5.2	1.6	<0.45
1221 Hookston - 1st Floor LR	1221 Hookston Rd	9/28-29/2006	Living Room		4.5	0.46	<0.11	ND	<0.053	<0.034	0.19	<0.15	<0.11	0.53	1.1	30	1.4	4.1	1.2	<0.48
1221 Hookston Rd - 1st Floor BR	1221 Hookston Rd	8/23-24/2007	Bedroom		3.5	0.36	<0.10	ND	<0.051	<0.033	<0.18	<0.14	<0.10	0.92	0.94	9.8	0.76	2.0	0.82	<0.46
1221 Hookston Rd - 1st Floor LR	1221 Hookston Rd	8/23-24/2007	Living Room		5.0	0.36	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	0.77	0.90	8.9	0.76	2.0	0.81	<0.49
1221 Hookston Rd - 1st Floor LR	1221 Hookston Rd	8/24-25/2009	Living Room		7.0	0.22	<0.12	ND	<0.059	<0										

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
					Residential Indoor Air ESL (beginning 2016):	0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
					Previous Residential Indoor Air ESL (through 2015):	0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1221 Thames Dr - 2nd Floor Central Bedroom/Office - Closet	1221 Thames Dr	9/27-28/2010	2nd Floor Central Bedroom/Office - Closet	YES	8.5	1.5	1.4	ND	<0.079	<0.030	1.8	0.98	<0.080	NA	1.3	NA	2.5	NA	NA	NA
1221 Thames Dr - 2nd Floor West Bedroom	1221 Thames Dr	9/27-28/2010	2nd Floor West Bedroom	YES	6.0	3.3	0.67	ND	<0.079	0.035	2.4	3.0	<0.080	NA	2.5	NA	5.2	NA	NA	NA
1221 Thames Dr - 2nd Floor Attic	1221 Thames Dr	9/27-28/2010	2nd Floor Attic	YES	6.5	0.43	0.23	ND	<0.079	<0.030	1.4	0.65	<0.080	NA	1.1	NA	1.5	NA	NA	NA
1221 Thames Dr - 2nd Floor Craft Room	1221 Thames Dr	9/27-28/2010	2nd Floor Craft Room	YES	6.5	6.4	0.67	ND	<0.079	0.061	3.5	4.8	<0.080	NA	4.2	NA	10	NA	NA	NA
1221 Thames Dr - Garage	1221 Thames Dr	9/27-28/2010	Garage	YES	9.0	3.8	0.71	ND	<0.079	0.084	3.6	7.6	<0.080	NA	5.7	NA	13	NA	NA	NA
1221 Thames Dr- 1st Floor Master BR	1221 Thames Dr	8/2-3/2011	Master Bedroom	YES	6.0	0.75	0.28	ND	<0.079	<0.030	0.54	0.48	<0.080	NA	0.35	NA	0.95	NA	NA	NA
1221 Thames Dr- 2nd Floor Bathroom	1221 Thames Dr	8/2-3/2011	2nd Floor Bathroom	YES	6.0	1.7	0.32	ND	<0.079	<0.030	0.63	1.1	<0.080	NA	0.42	NA	1.8	NA	NA	NA
1221 Thames Dr- 2nd Floor East BR	1221 Thames Dr	8/2-3/2011	2nd Floor East Bedroom	YES	6.0	2.0	0.39	ND	<0.079	<0.030	0.75	1.5	<0.080	NA	0.48	NA	1.7	NA	NA	NA
1221 Thames Dr- 2nd Floor Central BR/Office	1221 Thames Dr	8/2-3/2011	2nd Floor Central Bedroom/Office	YES	8.0	2.6	0.48	ND	<0.079	<0.030	0.88	1.7	<0.080	NA	0.51	NA	1.8	NA	NA	NA
1221 Thames Dr- 2nd Floor Central BR/Office - Closet	1221 Thames Dr	8/2-3/2011	2nd Floor Central Bedroom/Office - Closet	YES	6.5	2.1	0.35	ND	<0.079	<0.030	0.88	1.6	<0.080	NA	0.48	NA	1.6	NA	NA	NA
1221 Thames Dr- 2nd Floor West BR	1221 Thames Dr	8/2-3/2011	2nd Floor West Bedroom	YES	6.0	2.1	0.44	ND	<0.079	<0.030	0.88	1.7	<0.080	NA	0.51	NA	1.7	NA	NA	NA
1221 Thames Dr- 2nd Floor Attic	1221 Thames Dr	8/2-3/2011	2nd Floor Attic	YES	6.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	0.13	<0.080	NA	0.24	NA	0.27	NA	NA	NA
1221 Thames Dr- 2nd Floor Craft Room	1221 Thames Dr	8/2-3/2011	2nd Floor Craft/Storage Room	YES	5.0	2.8	0.35	ND	<0.079	<0.030	1.2	2.2	<0.080	NA	0.54	NA	4.2	NA	NA	NA
1221 Thames Dr- Garage	1221 Thames Dr	8/2-3/2011	Garage	YES	10.0	0.96	0.30	ND	<0.079	<0.030	1.0	5.4	<0.080	NA	0.57	NA	2.6	NA	NA	NA
1221 Thames Dr- 2nd Floor Master BR	1221 Thames Dr	8/14-15/2012	Master Bedroom	YES	6.5	0.17	0.12	ND	<0.079	<0.030	0.22	<0.11	<0.080	NA	0.45	NA	0.65	NA	NA	NA
1221 Thames Dr- 2nd Floor Bathroom	1221 Thames Dr	8/14-15/2012	2nd Floor Bathroom	YES	9.0	0.28	<0.079	ND	<0.079	<0.030	0.95	<0.11	<0.080	NA	0.67	NA	1.5	NA	NA	NA
1221 Thames Dr- 2nd Floor East BR	1221 Thames Dr	8/14-15/2012	2nd Floor East Bedroom	YES	10.0	0.54	0.16	ND	<0.079	<0.030	1.4	<0.11	<0.080	NA	1.4	NA	4.2	NA	NA	NA
1221 Thames Dr- 2nd Floor Central BR/Office	1221 Thames Dr	8/14-15/2012	2nd Floor Central Bedroom/ Office	YES	4.0	0.91	0.23	ND	<0.079	<0.030	1.8	<0.11	<0.080	NA	1.6	NA	5.2	NA	NA	NA
1221 Thames Dr- 2nd Floor Central BR/Office (dup)	1221 Thames Dr	8/14-15/2012	2nd Floor Central Bedroom/ Office	YES	9.0	0.70	0.17	ND	<0.079	<0.030	1.4	<0.11	<0.080	NA	1.3	NA	4.3	NA	NA	NA
1221 Thames Dr- 2nd Floor Central BR/Office Closet	1221 Thames Dr	8/14-15/2012	2nd Floor Central Bedroom/ Office Closet	YES	6.0	0.80	<0.079	ND	<0.079	<0.030	1.6	<0.11	<0.080	NA	1.4	NA	4.8	NA	NA	NA
1221 Thames Dr- 2nd Floor West BR	1221 Thames Dr	8/14-15/2012	2nd Floor West Bedroom	YES	16.0	1.6	0.14	ND	<0.079	<0.030	3.3	<0.11	<0.080	NA	2.5	NA	8.2	NA	NA	NA
1221 Thames Dr- 2nd Floor Attic	1221 Thames Dr	8/14-15/2012	2nd Floor Attic	YES	22.0	0.21	<0.079	ND	<0.079	<0.030	0.41	<0.11	<0.080	NA	0.57	NA	1.1	NA	NA	NA
1221 Thames Dr- 2nd Floor Craft Room	1221 Thames Dr	8/14-15/2012	2nd Floor Craft/Storage Room	YES	8.0	2.1	0.16	ND	<0.079	<0.030	4.3	<0.11	<0.080	NA	3.0	NA	10	NA	NA	NA
1221 Thames Dr- Garage	1221 Thames Dr	8/14-15/2012	Garage	YES	8.5	1.1	0.23	ND	<0.079	<0.030	8.8	<0.11	<0.080	NA	3.8	NA	13	NA	NA	NA
1250 Hookston Rd - 1st Floor	1250 Hookston Rd	8/24/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	1.5	2.4	<0.14	<0.14	0.59	13	0.82	2.3	0.66	0.75 J
1260 Waterloo	1260 Waterloo Ct	2/26/2004	Kid's Bedroom		6.5	0.42	<0.14	ND	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1261 Hookston Rd - 2nd Floor	1261 Hookston Rd	8/23/2005	Bedroom		8.0	<0.20	<0.14	ND	<0.072	<0.047	0.34	1.8	<0.15	<0.15	3.6	24	3.5	15	3.6	<0.66
1261 Hookston Rd - 1st Floor	1261 Hookston Rd	8/23/2005	Dining Room		8.0	<0.20	<0.14	ND	0.086	<0.047	0.37	2.8	<0.15	<0.15	5.3	36	4.8	22	5.2	<0.66
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	7/23-24/2008	Master Bedroom		7.0	0.23	<0.12	ND	<0.059	<0.038	<0.20	<0.16	<0.12	<0.14	0.61	5.3	0.43	0.76	0.31	<0.53
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	7/23-24/2008	Bedroom		4.5	0.15	<0.11	ND	<0.053	<0.034	<0.18	<0.15	<0.11	0.14	0.71	1.9	0.21	0.48	0.22	<0.48
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	8/31-9/1/2009	Master Bedroom		5.5	0.31	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	0.36	3.6	0.26	0.68	0.27	<0.50
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	8/31-9/1/2009	Bedroom		8.0	0.36	<0.12	ND	<0.061	<0.040	<0.21	<0.17	<0.12	0.56	0.42	3.8	0.28	0.72	0.30	<0.56
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	8/22-23/2011	Master Bedroom		5.0	<0.11	0.40	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.38	NA	0.30	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	8/22-23/2011	Bedroom		5.0	<0.11	1.50	ND	<0.079	<0.030	<0.14	0.14	<0.080	NA	0.42	NA	0.35	NA	NA	NA
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	7/19-20/2012	Master Bedroom		4.5	<0.11	0.36	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	0.40	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	7/19-20/2012	Bedroom		4.5	<0.11	1.4	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.42	NA	0.48	NA	NA	NA
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	7/29-30/2013	Master Bedroom		0.0	0.14	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.45	NA	0.25	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	7/29-30/2013	Bedroom		6.0	0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.64	NA	0.26	NA	NA	NA
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	7/30-31/2014	Master Bedroom		-8.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	1.1 U	NA	0.48	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	7/30-31/2014	Bedroom		7.0	1.1	<0.031	ND	<0.021	<0.030	0.66	<0.030	<0.020	NA	1.1 U	NA	2.2	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor - Dup	1261 Trafalgar Ct	7/30-31/2014	Bedroom		17.0	1.1	<0.031	ND	<0.021	<0.030	0.58	<0.030	<0.020	NA	0.38 U	NA	4.10	NA	NA	NA
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	8/14-15/2014	Master Bedroom		4.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.21	NA	0.26	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	8/14-15/2014	Bedroom		4.0	<0.039	<0.031	ND	<0.021	<0.030	0.18	<0.030	<0.020	NA	0.26	NA	0.29	NA	NA	NA
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	8/4-5/2016	Master Bedroom		-6.0	0.112 J	<0.159	<0.159	<0.159	<0.0598	0.111 J	<0.218	<0.160	NA	0.362	NA	0.352	NA	NA	NA
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	8/4-5/2016	Bedroom		-13.0	0.0710 J	<0.0793	<0.0793	<0.0793	<0.0299	0.0399 J	<0.109	<0.0802	NA	0.251	NA	0.123 J	NA	NA	NA
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	9/11-12/2006	Living Room		2.0	<0.15	<0.11	ND	<0.057	<0.037	0.22	<0.16	<0.12	<0.12	0.97	4.5	0.68	2.3	0.83	<0.52
1261 Waterloo Ct - 1st Floor (dup)	1261 Waterloo Ct	9/11-12/2006	Living Room		6.0	0.29	<0.11	ND	<0.056	<0.036	0.23	<0.15	<0.11	<0.11	1.0	6.8	0.97	2.7	0.92	<0.051
1261 Waterloo Ct - 2nd Floor	1261 Waterloo Ct	9/11-12/2006	Bedroom		7.0	<0.16	<0.12	ND	<0.059	<0.038	0.20	<0.16	<0.12	<0.12	0.98	4.2	0.76	2.7	0.89	<0.53
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	10/15-16/2007	Living Room		6.5	<0.16	<0.11	ND	<0.057	<0.037	<0.20	<0.16	<0.12	<0.12	0.49	4.8	0.19	0.59	0.28	<0.52
1261 Waterloo Ct - 2nd Floor	1261 Waterloo Ct	10/15-16/2007	Bedroom		4.5	<0.14	<0.11	ND	<0.053	<0.034	<0.18	<0.15	<0.11	0.11	0.81	11	0.47	1.1	0.48	<0.48
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	7/29-30/2008	Living Room		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	<0.22	1.4	0.15	0.34	0.12	<0.50 UJ
1261 Waterloo Ct - 2nd Floor	1																			

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)	
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1.000	1.8	0.11	0.097	310	1.1	100	100	11	
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4	
1270 Waterloo Ct. - 1st Floor	1270 Waterloo Ct	8/14-15/2007	Living Room		4.5	4.1	<0.11	ND	0.15	<0.034	0.48	1.1	<0.11	0.69	0.40	3.4	0.35	1.0	0.37	<0.48	
1270 Waterloo Ct. - 2nd Floor	1270 Waterloo Ct	8/14-15/2007	Bedroom		4.0	<0.14	<0.10	ND	<0.052	0.031 J	<0.18	0.34	<0.11	<0.11	0.43	3.6	0.51	0.94	0.34	<0.47	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	12/27-28/2007	Living Room		5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	0.73	<0.11	<0.11	5.6	24	4.7	23	8.5	<0.49	
1270 Waterloo Ct - 1st Floor Dup	1270 Waterloo Ct	12/27-28/2007	Living Room		0.0	5.4 J	0.27 J	ND	0.079 J	<0.029 UJ	0.22 J	1.2 J	0.19 J	<0.092 UJ	6.1 J	27 J	5.0 J	25 J	9.2 J	<0.41 UJ	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	12/27-28/2007	Bedroom		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	0.70	<0.11	<0.11	4.1	16	2.8	13	4.6	<0.47	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	8/14-15/2008	Living Room		10.5	<0.19	<0.14	ND	<0.069	<0.045	0.27	0.68	<0.14	<0.14	0.73	9.8	0.93	1.8	0.67	<0.63	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	8/14-15/2008	Bedroom		10.0	<0.18	<0.13	ND	<0.067	0.013 J	<0.23	0.48	<0.14	<0.14	0.78	14	0.58	1.5	0.60	<0.61	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	7/26-27/2010	Living Room		2.5	0.43	3.2	ND	<0.079	<0.030	8.8	<0.11	<0.08	NA	1.20	NA	2.6	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	7/26-27/2010	Bedroom		7.5	0.17	0.27	ND	<0.079	<0.030	6.2	0.21	<0.08	NA	0.45	NA	3.7	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	7/19-20/2012	Living Room		6.0	1.4	<0.079	ND	<0.079	<0.030	0.16	<0.11	<0.080	NA	0.26	NA	0.16	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	7/19-20/2012	Bedroom		5.0	<0.11	0.26	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.24	NA	0.24	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	9/25-26/2012	Living Room		7.0	0.18	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	1.10	NA	0.61	NA	NA	NA	
1270 Waterloo Ct - 1st Floor Dup	1270 Waterloo Ct	9/25-26/2012	Living Room		7.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.70	NA	0.32	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	9/25-26/2012	Bedroom		9.0	<0.11	<0.079	ND	<0.079	<0.030	0.67	<0.11	<0.080	NA	2.90	NA	2.90	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	7/22-23/2013	Living Room		7.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	1.0	NA	0.74	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	7/22-23/2013	Bedroom		6.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.67	NA	0.48	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	7/21-22/2014	Living Room		7.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	1.1	NA	0.87	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	7/21-22/2014	Bedroom		6.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.64	NA	0.87	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	8/12-13/2015	Living Room		0.0	0.0995 J	<0.0793	<0.0793	<0.0793	<0.0299	0.171	0.0529 J	<0.0802	NA	0.857	NA	0.54	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	8/12-13/2015	Bedroom		5.0	0.0632 J	<0.0793	0.0315 J	<0.0793	<0.0299	0.211	0.0328 J	<0.0802	NA	0.433	NA	2.27	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor (dup)	1270 Waterloo Ct	8/12-13/2015	Bedroom		6.0	0.0524 J	<0.0793	<0.0793	<0.0793	<0.0299	0.176	0.0303 J	<0.0802	NA	0.367	NA	2.37	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	7/25-26/2016	Living Room		-6.0	0.0718 J	<0.0793	0.0469 J	<0.0793	<0.0299	0.243	0.0344 J	<0.0802	NA	0.745	NA	0.862	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	7/25-26/2016	Bedroom		-6.0	0.0636 J	<0.0793	0.0316 J	<0.0793	<0.0299	0.227	0.0337 J	<0.0802	NA	0.63	NA	0.862	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor (dup)	1270 Waterloo Ct	7/25-26/2016	Bedroom		-6.0	0.194	<0.0793	<0.0793	<0.0793	<0.0299	0.162	<0.109	<0.0802	NA	0.345	NA	0.311	NA	NA	NA	
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	7/31-8/01/2017	Living Room		-7.0	0.0569 J	<0.0793	<0.0793	<0.0793	<0.0511	0.0574 J	<0.109	<0.0802	NA	0.536	NA	0.878	NA	NA	NA	
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	10/17-10/18/2017	Bedroom		-5.0	0.0782 J	<0.0793	<0.0793	<0.0793	<0.0511	0.133 J	<0.109	<0.0802	NA	1.34	NA	1.24	NA	NA	NA	
1271 Hookston	1271 Hookston Rd	3/3/2004	Master Bedroom		6.0	<0.18	<0.14	ND	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1271 Hookston Rd - 1st Floor	1271 Hookston Rd	8/22/2005	Living Room/Dining Room		2.0	<0.15	<0.11	ND	<0.057	<0.037	<0.20	<0.16	<0.12	<0.12	1.3	10	1.2	4.6	1.5	<0.52 UJ	
1271 Hookston Rd - 2nd Floor	1271 Hookston Rd	8/22/2005	Bedroom		8.5	<0.20	<0.15	ND	<0.074	<0.048	<0.25	<0.20	<0.15	<0.15	0.96	7.6	1.2	4.2	1.1	<0.67 UJ	
1310 Gragg Ln - 1st Floor	1310 Gragg Ln	9/5-6/2006	Bedroom		3.0	<0.14	<0.10	ND	<0.050	<0.032	0.26 U	0.14	<0.10	<0.10	0.95	14	1.3	3.8	1.4	<0.45	
1310 Gragg Ln - 1st Floor (dup)	1310 Gragg Ln	9/5-6/2006	Bedroom		2.0	<0.13	<0.097	ND	<0.048	<0.031	0.24 U	<0.13	<0.099	0.12	0.89	14	1.4	3.8	1.3	<0.44	
1310 Strathmore Ct - 1st Floor	1310 Strathmore Ct	8/25/2005	Master Bedroom		8.0	<0.20	<0.14	ND	0.16	<0.047	17	12	<0.15	0.34	0.73	8.2	0.46	0.87	0.26	<0.66 UJ	
1311 Strathmore Ct - 2nd Floor	1311 Strathmore Ct	8/31/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.15	<0.14	0.61	3.6	0.39	1.1	0.33	<0.64	
1311 Strathmore Ct - 2nd Floor Duplicate	1311 Strathmore Ct	8/31/2005	Bedroom		7.5	0.20	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.59	3.4	0.36	0.97	0.30	<0.64	
1311 Strathmore Ct - 1st Floor	1311 Strathmore Ct	8/31/2005	Dining Room		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	0.17	0.66	4.8	0.42	1.2	0.41	<0.66	
1320 Strathmore Ct - 2nd Floor	1320 Strathmore Ct	8/25/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	0.29	<0.14	<0.14	0.86	3.2	0.40	1.1	0.34	<0.64 UJ	
1320 Strathmore Ct - 1st Floor	1320 Strathmore Ct	8/25/2005	Living Room		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	0.27	<0.14	<0.14	0.74	3.1	0.40	1.1	0.33	<0.62 UJ	
1321 Edinburgh Ct - 1st Floor	1321 Edinburgh Ct	8/31/2005	Bedroom		7.5	<0.19	<0.14	ND	<0.071	<0.046	0.30	<0.20	<0.14	<0.14	1.30	7.0	0.88	2.9	0.98	<0.64 UJ	
1321 Hampshire Ct - 1st Floor	1321 Hampshire Ct	8/29/2005	Master Bedroom		6.5	<0.18	<0.14	ND	<0.068	<0.044	0.67	<0.19	<0.14	<0.14	1.0	6.8	0.79	2.5	0.69	<0.62	
1330 Aberdeen - 1st Fl.	1330 Aberdeen Ct	8/31-9/1/2006	Living Room		0.0	<0.12 UJ	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	0.22 J	0.14 J	<0.092	<0.092 UJ	1.4 J	22 J	2.6 J	6.4 J	1.8 J	<0.41 UJ	
1330 Aberdeen - 2nd Fl.	1330 Aberdeen Ct	8/31-9/1/2006	Bedroom		4.5	<0.14	<0.11	ND	<0.053	<0.034	0.20	<0.15	<0.11	<0.11	1.1	13	1.4	5.0	1.5	<0.48	
1350 Edinburgh Ct - 2nd Floor	1350 Edinburgh Ct	9/25-26/2006	Bedroom		3.0	<0.14	<0.10	ND	<0.050	<0.032	0.25	0.16	<0.10	0.36	1.3	14	1.8	6.4	2.1	<0.45	
1350 Edinburgh Ct - 1st Floor	1350 Edinburgh Ct	9/25-26/2006	Living Room		3.0	<0.14	<0.10	ND	<0.050	<0.032	0.23	0.18	<0.10	0.36	1.4	15	1.8	6.4	2.1	<0.45	
1351 Edinburgh Ct - 2nd Floor	1351 Edinburgh Ct	9/20/2005	Bedroom		8.0	<0.20	<0.14	ND	<0.072	<0.047	1.3	<0.20	<0.15	0.15	1.6	12	1.2	3.4	1.1	<0.66	
1351 Edinburgh Ct - 1st Floor	1351 Edinburgh Ct	9/20/2005	Family Room		11.5	<0.23	<0.17	ND	<0.086	<0.055	2.0	<0.24	<0.18	<0.18	2.2	16	1.4	4.5	1.5	<0.78	
Crawl Space and VIPS Air Quality Samples:																					
989 Stimel Dr - Crawl Space	989 Stimel Dr	11/22/2005	Crawl Space		7.0	<0.19	<0.14	ND	<0.069	<0.045	0.43	0.30	<0.14	<0.14	2.0	8.2	1.2	4.0	1.3	<0.63	
992 Bermuda Dr - Crawl Space	992 Bermuda Dr	9/22/2005	Crawl Space		7.5	<0.19	<0.14	ND	<0.071	<0.046	0.26	<0.20	<0.14	<0.14	0.96	4.2	0.56	1.6	0.50	<0.64	
1000 Hampton (crawl)	1000 Hampton Dr	1/21/2004	Crawl Space		5.5	1.6	<0.13	ND	<0.066	NA	<0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1000 Hampton Dr - Crawl Space	1000 Hampton Dr	8/29/2005	Crawl Space		8.0	3.0	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	0.62	3.4	0.67	1.9	0.47	<0.66	
1000 Hampton Dr - Crawl	1000 Hampton Dr	10/4-5/2006	Crawl Space		0.0*	0.26 J	<0.087 UJ	ND	<0.044 UJ	<0.028 UJ	<0.15 UJ</										

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	5/27-28/2008	VIPS Discharge Pipe (1 treatment)	YES	1.5	<0.13	<0.095	ND	<0.048	0.029 J	<0.16	<0.13	<0.097	<0.097	0.45	1.3	0.15	0.44	0.16	<0.43
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	5/27-28/2008	VIPS Discharge Pipe (2 treatments)	YES	3.0	<0.14	<0.10	ND	<0.050	0.06	<0.17	<0.14	<0.10	0.12	0.87	0.9	0.13	0.34	0.13	<0.45
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/15-16/2008	Crawl Space	YES	0.5	1.0	<0.092	ND	<0.046	<0.030	<0.16	<0.13	<0.094	<0.094	0.58	0.92	0.12	0.33	0.13	<0.42
1002 Hampton Dr - VIPS In ⁽¹⁾	1002 Hampton Dr	7/15-16/2008	VIPS Discharge Pipe (no treatment)	YES	3.0	3.5	<0.10	ND	<0.050	0.016 J	<0.17	<0.14	<0.10	0.15	0.69	0.8	0.14	0.39	0.16	<0.45
1002 Hampton Dr - VIPS Mid ⁽²⁾	1002 Hampton Dr	7/15-16/2008	VIPS Discharge Pipe (1 treatment)	YES	2.5	<0.13	<0.098	ND	<0.049	0.018 J	<0.17	<0.14	<0.10	0.15	0.52	0.47	0.12	0.33	0.14	<0.45
1002 Hampton Dr - VIPS Eff ⁽³⁾	1002 Hampton Dr	7/15-16/2008	VIPS Discharge Pipe (2 treatments)	YES	2.5	<0.13	<0.098	ND	<0.049	0.048	<0.17	<0.14	<0.10	0.19	0.61	0.95	0.31	0.46	0.19	<0.45
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/20-21/2009	Crawl Space	YES	1.0	0.98	<0.094	ND	<0.047 UJ	<0.030	<0.16	<0.13	<0.096	<0.096	0.43	1.5	0.14	0.36	0.13	<0.42
1002 Hampton Dr - VIPS In	1002 Hampton Dr	7/20-21/2009	VIPS Discharge Pipe (no treatment)	YES	7.8	2.1	<0.12	ND	<0.061 UJ	0.084	<0.21	<0.17	<0.12	<0.12	0.4	0.86	0.14	0.36	0.17	<0.55
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	7/20-21/2009	VIPS Discharge Pipe (1 treatment)	YES	7.2	<0.64	<0.47	ND	<0.24 UJ	0.27	<0.81	<0.65	<0.48	<0.48	<0.95	1.1	<0.52	<1.0	<0.52	<2.1
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	7/20-21/2009	VIPS Discharge Pipe (2 treatments)	YES	6.8	<1.0	<0.77	ND	<0.38 UJ	<0.25	<1.3	<1.1	<0.79	<0.79	<1.6	<0.73	<0.84	<1.7	<0.84	<3.5
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	12/10-11/2009	Crawl Space	YES	1.5	<0.13	<0.095	ND	<0.048	<0.031	<0.16	<0.13	<0.097	<0.097	2.8	2.1	0.24	0.50	0.20	<0.43
1002 Hampton Dr - VIPS IN	1002 Hampton Dr	12/10/2009***	VIPS Discharge Pipe (no treatment)	YES	4.8	23	<0.8	ND	<4.8	<0.31	<8.1	<6.5	<4.8	<3.8	<4.5	<5.2	<5.2	5.5	<4.8	<4.3
1002 Hampton Dr - VIPS MID	1002 Hampton Dr	12/10/2009***	VIPS Discharge Pipe (1 treatment)	YES	0.4	<5.3	<3.9	ND	<3.9	<2.5	<6.7	<5.4	<4.0	<4.0	<3.1	<3.7	<4.3	<4.3	<4.3	<3.6
1002 Hampton Dr - VIPS EFF	1002 Hampton Dr	12/10/2009***	VIPS Discharge Pipe (2 treatments)	YES	0.8	<5.6	<4.1	ND	<4.1	<2.6	<7.0	<5.7	<4.2	<4.2	<3.3	<3.9	<4.5	<4.5	<4.5	<3.7
1002 Hampton Dr - VIPS IN	1002 Hampton Dr	1/7-8/2010	VIPS Discharge Pipe (no treatment)	YES	3.0	3.8	<0.10	ND	0.083	<0.032	<0.17	<0.14	<0.10	<0.10	0.85	1.7	0.30	0.80	0.28	<0.45
1002 Hampton Dr - VIPS MID	1002 Hampton Dr	1/7-8/2010	VIPS Discharge Pipe (1 treatment)	YES	5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	0.57	1.5	0.29	0.77	0.28	0.49
1002 Hampton Dr - VIPS EFF	1002 Hampton Dr	1/7-8/2010	VIPS Discharge Pipe (2 treatments)	YES	2.0	<0.13	<0.097	ND	<0.048	<0.031	<0.16	<0.13	<0.099	<0.099	0.56	2.2	0.32	0.84	0.31	<0.44
1002 Hampton Dr - VIPS In	1002 Hampton Dr	8/12-13/2010	VIPS Discharge Pipe (no treatment)	YES	4.5	4.7	0.17	ND	0.083	<0.030	<0.14	<0.11	<0.080	NA	0.31	NA	0.52	NA	NA	NA
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	8/12-13/2010	VIPS Discharge Pipe (1 treatment)	YES	14	<0.11	<0.079	ND	0.2	<0.030	<0.14	<0.11	<0.080	NA	0.19	NA	0.29	NA	NA	NA
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	8/12-13/2010	VIPS Discharge Pipe (2 treatments)	YES	20.5	<0.11	0.18	ND	<0.079	<0.030	<0.14	0.34	<0.080	NA	0.45	NA	0.69	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	9/20-21/2010	Crawl Space	YES	11.5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.38	NA	0.32	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/18-19/2011	Crawl Space	YES	5.5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.14	NA	0.15	NA	NA	NA
1002 Hampton Dr - VIPS In	1002 Hampton Dr	7/18-19/2011	VIPS Discharge Pipe (no treatment)	YES	0.0	1.2	<0.079	ND	<0.079	<0.030	0.27	<0.11	<0.080	NA	0.13	NA	<0.13	NA	NA	NA
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	7/18-19/2011	VIPS Discharge Pipe (no treatment)	YES	NA*	NA*	NA*	ND	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
1002 Hampton Dr - VIPS Mid (resample)	1002 Hampton Dr	8/1-2/2011	VIPS Discharge Pipe (1 treatment)	YES	10.0	<0.11	1.4	ND	<0.079	0.051	<0.14	<0.11	<0.080	NA	0.89	NA	0.18	NA	NA	NA
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	7/18-19/2011	VIPS Discharge Pipe (2 treatments)	YES	2.5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.064	NA	<0.13	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/23-24/2012	Crawl Space	YES	9.0	<0.11	0.11	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.45	NA	0.37	NA	NA	NA
1002 Hampton Dr - VIPS In	1002 Hampton Dr	7/23-24/2012	VIPS Discharge Pipe (no treatment)	YES	12.0	0.70	<0.32	ND	<0.32	<0.12	<0.54	<0.44	<0.32	NA	0.57	NA	0.52	NA	NA	NA
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	7/23-24/2012	VIPS Discharge Pipe (1 treatment)	YES	6.0	1.1	<0.32	ND	<0.32	0.12	<0.54	<0.44	<0.32	NA	0.64	NA	<0.52	NA	NA	NA
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	7/23-24/2012	VIPS Discharge Pipe (2 treatments)	YES	7.0	<0.43	<0.32	ND	<0.32	<0.12	<0.54	<0.44	<0.32	NA	0.51	NA	<0.52	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/25-26/2013	Crawl Space	YES	6.0	<0.11	0.12	ND	<0.079	<0.030	0.33	<0.11	<0.080	NA	0.32 U	NA	0.42	NA	NA	NA
1002 Hampton Dr - VIPS In	1002 Hampton Dr	7/25-26/2013	VIPS Discharge Pipe (no treatment)	YES	7.5	1.1	0.079	ND	<0.079	0.031	<0.14	<0.11	<0.080	NA	0.26 U	NA	0.20	NA	NA	NA
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	7/25-26/2013	VIPS Discharge Pipe (1 treatment)	YES	9.0	<0.11	<0.079	ND	<0.079	0.031	<0.14	<0.11	<0.080	NA	0.25 U	NA	0.26	NA	NA	NA
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	7/25-26/2013	VIPS Discharge Pipe (2 treatments)	YES	4.0	0.12	0.15	ND	<0.079	0.051	<0.14	<0.11	<0.080	NA	0.61	NA	0.52	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/21-22/2014	Crawl Space	YES	6.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.83	NA	0.15	NA	NA	NA
1002 Hampton Dr VIPS - IN	1002 Hampton Dr	7/21-22/2014	VIPS Discharge Pipe (no treatment)	YES	6.0	0.64	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.38	NA	0.39	NA	NA	NA
1002 Hampton Dr VIPS - MID	1002 Hampton Dr	7/21-22/2014	VIPS Discharge Pipe (1 treatment)	YES	3.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	1.1	NA	0.35	NA	NA	NA
1002 Hampton Dr VIPS - OUT	1002 Hampton Dr	7/22-21/2014	VIPS Discharge Pipe (2 treatments)	YES	5.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	3.1	NA	<0.039	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	8/12-13/2015	Crawl Space	YES	5.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.273	NA	0.196	NA	NA	NA
1002 Hampton Dr VIPS - IN	1002 Hampton Dr	8/12-13/2015	VIPS Discharge Pipe (no treatment)	YES	4.5	0.308	<0.0793	0.0390 J	<0.0793	<0.0299	0.0605 J	0.0361 J	<0.0802	NA	0.193	NA	0.181	NA	NA	NA
1002 Hampton Dr VIPS - MID	1002 Hampton Dr	8/12-13/2015	VIPS Discharge Pipe (1 treatment)	YES	5.0	0.148	<0.0793	<0.0793	<0.0793	0.518	0.0572 J	<0.109	<0.0802	NA	0.799	NA	7.63	NA	NA	NA
1002 Hampton Dr VIPS - OUT	1002 Hampton Dr	8/12-13/2015	VIPS Discharge Pipe (2 treatments)	YES	5.0	0.877	<0.0793	<0.0793	<0.0793	<0.0299	0.0474 J	<0.109	<0.0802	NA	0.246	NA	0.384	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	12/16-17/2015	Crawl Space	YES	6.0	<0.107	0.123	<0.0793	<0.0793	<0.0299	0.0888 J	<0.109	<0.0802	NA	1.09	NA	0.439	NA	NA	NA
1002 Hampton Dr VIPS - OUT	1002 Hampton Dr	12/16-17/2015	VIPS Discharge Pipe (no treatment)	YES	5.0	2.94	0.115	<0.0793	<0.0793	0.328	<0.109	<0.0802	NA	0.999	NA	0.742	NA	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/25-26/2016	Crawl Space	YES	-19.0	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
1002 Hampton Dr VIPS - OUT	1002 Hampton Dr	7/25-26/2016	VIPS Discharge Pipe (no treatment)	YES	-6.0	2.12	<0.0793	0.0339 J	0.0241 J	<0.0299	0.726	<0.109	<0.0802	NA	0.653	NA	0.434	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	8/22-23/2016	Crawl Space	YES	-5.5	0.0610 J	<0.0793	0.17	<0.0793	0.132 J	<0.109	<0.0802	NA	0.264 J+	NA	0.142	NA	NA	NA	NA
1002 Hampton Dr VIPS - EFF	1002 Hampton Dr	8/22-23/2016	VIPS Discharge Pipe (no treatment)	YES	-11.0	0.708	<0.0793	<0.0793	0.0244 J	0.157	<0.109	0.041 J	NA	1.53	NA	3.67	NA	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/31-8/01/2017	Crawl Space	YES	-6.0	0.0541 J	<0.0793	<0.0793	<0.0793	<0.0511	0.322	<0.109	<0.0802	NA	0.401	NA	0.613	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	9/12-13/2017	Crawl Space	YES	0.0	<0.107	<0.0793	<0.0793	<0.079											

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
					Residential Indoor Air ESL (beginning 2016):	0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
					Previous Residential Indoor Air ESL (through 2015):	0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1006 Hampton Dr - Crawl Space	1006 Hampton Dr	7/27-28/2017	Crawl Space	YES	-5.0	0.0726 J	<0.0793	<0.0793	<0.0793	<0.0511	0.345	<0.109	<0.0802	NA	0.297	NA	0.562	NA	NA	NA
1006 Stimmel (crawl)	1006 Stimmel Dr	2/17/2004	Crawl Space		4.5	5.1	0.38	ND	<0.064	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
1006 Stimmel Dr - Crawl Space	1006 Stimmel Dr	9/14/2005	Crawl Space		7.0	3.2	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.78	4.9	0.62	2.1	0.58	<0.63 UJ
1006 Stimmel Dr - Crawl Space	1006 Stimmel Dr	11/6-7/2008	Crawl Space	YES	6.5	<0.16	<0.11	ND	<0.057	<0.037	<0.20	<0.16	<0.12	<0.12	1.0	2.8	0.45	1.4	0.56	<0.52
1006 Stimmel Dr - Crawl Space	1006 Stimmel Dr	8/11-12/2009	Crawl Space	YES	7.0	<0.16	<0.12	ND	<0.059	0.016 J	0.69	<0.16	<0.12	0.12	0.96	7.4	0.78	2.6	0.81	<0.53
1006 Stimmel Dr - Crawl Space	1006 Stimmel Dr	8/10-11/2010	Crawl Space	YES	4.5	<0.11	0.32	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.51	NA	0.48	NA	NA	NA
1006 Stimmel Dr - Crawl Space	1006 Stimmel Dr	9/25-26/2012	Crawl Space	YES	8.0	<0.11	<0.079	ND	<0.079	<0.030	0.34	<0.11	<0.080	NA	1.50	NA	1.20	NA	NA	NA
1007 Bermuda Dr - Crawl Space	1007 Bermuda Dr	8/23/2005	Crawl Space		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	1.1	4.6	0.56	1.7	0.48	<0.66 UJ
1007 Stimmel (crawl)	1007 Stimmel Dr	2/26/2004	Crawl Space		n/a	0.53	<0.13	ND	<0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	9/6/2005	Crawl Space		6.5	1.4	<0.14	ND	<0.068	<0.044	0.29	<0.19	<0.14	<0.14	0.49	1.8	0.21	0.56	0.18	<0.62 UJ
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	10/13-14/2008	Crawl Space	YES	5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	0.8	3.0	0.48	1.6	0.57	<0.49
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	7/21-22/2009	Crawl Space	YES	8.6	<0.17	<0.13	ND	<0.063 UJ	<0.041	<0.22	<0.17	<0.13	<0.13	<0.25	0.65	<0.14	<0.28	<0.14	<0.57
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	8/2-3/2010	Crawl Space	YES	6	0.23	0.40	ND	<0.079	<0.030	<0.14	0.24	<0.080	NA	0.38	NA	0.52	NA	NA	NA
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	7/26-27/2011	Crawl Space	YES	4.0	<0.11	0.21	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.45	NA	0.39	NA	NA	NA
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	8/12-13/2013	Crawl Space	YES	5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.35	NA	0.34	NA	NA	NA
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	8/4-5/2016	Crawl Space	YES	-4.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.038 J	<0.109	<0.0802	NA	0.180 J+	NA	0.103 J	NA	NA	NA
1007 Stimmel Dr - Crawl Space (dup)	1007 Stimmel Dr	8/4-5/2016	Crawl Space	YES	-15.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.0406 J	<0.109	<0.0802	NA	0.197 J+	NA	0.0929 J	NA	NA	NA
1007 Stimmel Dr - Crawl Space	1007 Stimmel Dr	9/14-15/2017	Crawl Space	YES	0.0	<0.107	<0.0793	0.172	<0.0793	<0.0511	0.119 J	<0.109	<0.0802	NA	0.371	NA	0.388	NA	NA	NA
1008 Hampton (crawl)	1008 Hampton Dr	2/25/2004	Crawl Space		n/a	hold	hold	ND	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	9/7/2005	Crawl Space		7.0	1.1	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.59	2.2	0.28	0.72	0.22	<0.63 UJ
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	8/15-16/2007	Crawl Space		3.0	0.87	<0.10	ND	<0.050	<0.032	<0.17	<0.14	<0.10	<0.10	0.42	1.3	0.21	0.66	0.23	<0.45
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	7/20-21/2009	Crawl Space		11.6	0.99	<0.15	ND	<0.073 UJ	<0.047	<0.25	<0.20	<0.15	<0.15	<0.30	0.97	<0.16	0.32	<0.16	<0.67
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	7/26-27/2011	Crawl Space		-	0.24	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.45	NA	0.27	NA	NA	NA
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	7/23-24/2012	Crawl Space		0.0	0.28	0.13	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.1	NA	0.31	NA	NA	NA
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	7/31-8/1/2013	Crawl Space		6.0	0.64	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.25	NA	0.15	NA	NA	NA
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	8/12-13/2015	Crawl Space		4.5	0.84	<0.0793	<0.0793	<0.0793	<0.0299	0.0425 J	<0.109	<0.0802	NA	0.336	NA	0.173	NA	NA	NA
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	8/22-23/2016	Crawl Space	YES	-0.5	1.130	<0.0793	0.0408 J	<0.0793	<0.0511	0.0823 J	<0.109	<0.0802	NA	0.224 J+	NA	0.130 J	NA	NA	NA
1008 Hampton Dr - Crawl Space (dup)	1008 Hampton Dr	8/22-23/2016	Crawl Space	YES	-6.0	0.742	<0.0793	0.0389 J	<0.0793	<0.0511	0.104 J	<0.109	<0.0802	NA	0.250 J+	NA	0.160	NA	NA	NA
1008 Hampton Drive - 1st Floor	1008 Hampton Drive	8/24-8/25/2017	Crawl Space		-17.0	0.291	<0.159	0.0465 J	<0.159	<0.102	0.162 J	<0.218	<0.160	NA	0.288	NA	0.515	NA	NA	NA
1008 Stimmel Dr - Crawl Space	1008 Stimmel Dr	11/25-26/2013	Crawl Space		0.0	<0.11	<0.079	ND	<0.079	<0.051	<0.14	<0.11	<0.080	NA	0.86	NA	0.35	NA	NA	NA
1008 Stimmel Dr - Crawl Space	1008 Stimmel Dr	8/22-23/2016	Crawl Space		-3.0	0.0457 J	<0.0793	0.0903	<0.0793	<0.0511	0.605	<0.109	<0.0802	NA	0.252 J+	NA	0.274	NA	NA	NA
1009 Stimmel (crawl)	1009 Stimmel Dr	1/20/2004	Crawl Space		5.5	6.7	<0.13	ND	0.082	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	9/8/2005	Crawl Space	YES	7.5	0.44	<0.14	ND	<0.071	<0.046	0.87	<0.20	<0.14	<0.14	0.35	1.3	0.18	0.46	0.16	<0.64 UJ
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	9/15-16/2008	Crawl Space	YES	5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	0.18	<0.11	<0.11	0.39	1.6	0.22	0.63	0.21	<0.49 UJ
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	7/23-24/2009	Crawl Space	YES	6.0	<0.15	<0.11	ND	<0.056	<0.036	<0.19	<0.15	<0.11	<0.11	<0.23	0.65	<0.12	0.3	<0.12	<0.51
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	8/18-19/2010	Crawl Space	YES	7.0	<0.11	0.15	ND	<0.079	<0.030	<0.14	0.50	<0.080	NA	0.42	NA	0.69	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	8/17-18/2011	Crawl Space	YES	5.0	<0.11	0.19	ND	<0.079	<0.030	<0.14	0.41	<0.080	NA	0.32	NA	0.32	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	8/2-3/2012	Crawl Space	YES	5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	0.40	<0.080	NA	0.32	NA	1.6	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	7/29-30/2013	Crawl Space	YES	5.5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.54	NA	0.18	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	8/4-5/2014	Crawl Space	YES	5.0	0.18	<0.031	ND	<0.021	<0.030	0.2	0.35	<0.020	NA	0.23	NA	0.19	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	8/19-20/2015	Crawl Space	YES	9.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.368	NA	0.215	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	8/4-5/2016	Crawl Space	YES	-5.0	0.210 U	<0.0793	<0.0793	<0.0793	<0.0299	0.136 U	<0.109	<0.0802	NA	0.263 J+	NA	0.130 U	NA	NA	NA
1009 Stimmel Dr - Crawl Space	1009 Stimmel Dr	07/27-28/2017	Crawl Space	YES	-15.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.204	0.0963 J	<0.0802	NA	0.399	NA	0.582	NA	NA	NA
1011 Bermuda (crawl)	1011 Bermuda Dr	3/16/2004	Crawl Space		6.0	hold	hold	ND	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1011 Bermuda Dr - Crawl Space	1011 Bermuda Dr	9/7/2005	Crawl Space		4.0	<0.17	<0.12	ND	<0.061	<0.040	<0.21	<0.17	<0.12	<0.12	0.46	1.6	0.22	0.62	0.19	<0.56 UJ
1012 Stimmel Dr - Crawl Space	1012 Stimmel Dr	9/14-15/2006	Crawl Space		3.5	<0.14	<0.10	ND	<0.051	<0.033	<0.18	<0.14	<0.10	<0.10	0.58	0.80	0.16	0.51	0.17	<0.46
1012 Stimmel Dr - Crawl Space	1012 Stimmel Dr	8/21-22/2007	Crawl Space		3.0	<0.14	<0.10	ND	<0.050	<0.032	<0.17	<0.14	<0.10	<0.10	0.41	1.7	0.20	0.63	0.23	<0.45
1012 Stimmel Dr - Crawl Space	1012 Stimmel Dr	7/16-17/2008	Crawl Space		4.0	0.31	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.46	1.7	0.16	0.47	0.48	<0.47
1012 Stimmel Dr - Crawl Space	1012 Stimmel Dr	7/29-30/2009	Crawl Space		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	0.46	1.1	<0.12	0.31	<0.12	<0.50
1012 Stimmel Dr - Crawl Space	1012 Stimmel Dr	8/2-3/2010	Crawl Space		5	<0.11	0.21	ND	<0.079	<0.030	0.25	<0.11	<0.080	NA	0.32	NA	0.42	NA	NA	NA
1012 Stimmel Dr - Crawl Space (dup)	1012 Stimmel Dr	8/2-3/2010	Crawl Space		5	<0.11	0.15	ND												

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1015 Stimmel Dr - Crawl Space	1015 Stimmel Dr	8/22-23/2016	Crawl Space		-3.0	<0.107	<0.0793	0.206	<0.0793	<0.0511	0.0521 J	<0.109	<0.0802	NA	0.219	NA	0.121 J	NA	NA	NA
1015 Stimmel Dr - Crawl Space	1015 Stimmel Dr	07/26-27/2017	Crawl Space		-15.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.140	0.365	<0.0802	NA	0.458	NA	0.782	NA	NA	NA
1016 Hampton Dr - Crawl Space	1016 Hampton Dr	8/25/2005	Crawl Space		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.69	2.2	0.31	0.88	0.28	<0.63 UJ
1016 Stimmel Dr - Crawl Space	1016 Stimmel Dr	9/14/2005	Crawl Space		6.0	0.18	<0.13	ND	<0.067	<0.043	<0.23	<0.18	<0.14	<0.14	0.40	1.4	0.19	0.53	0.16	<0.60 UJ
1016 Stimmel Dr - Crawl Space	1016 Stimmel Dr	7/30-31/2012	Crawl Space		5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.67	NA	0.61	NA	NA	NA
1016 Stimmel Dr - Crawl Space	1016 Stimmel Dr	8/12-13/2015	Crawl Space		13.0	0.0541 J	<0.0793	<0.0793	<0.0793	<0.0299	0.0508 J	0.0327 J	<0.0802	NA	0.163	NA	0.171	NA	NA	NA
1017 Bermuda Dr - Crawl	1017 Bermuda Dr	8/30-31/2006	Crawl Space		0.0	<0.12 UJ	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	24 J	0.13 J	<0.092	<0.092 UJ	1.0 J	9.2 J	2.7 J	4.3 J	1.2 J	<0.41 UJ
1017 Bermuda Dr - Crawl Space	1017 Bermuda Dr	8/8-9/2007	Crawl Space		6.0	<0.15	<0.11	ND	<0.056	<0.036	<0.19	<0.15	<0.11	<0.11	0.37	1.2	0.21	0.60	0.31	<0.51
1017 Bermuda Dr - Crawl Space	1017 Bermuda Dr	7/15-16/2008	Crawl Space		1.5	<0.13	<0.095	ND	<0.048	<0.031	<0.16	<0.13	<0.097	<0.097	0.46	0.8	0.13	0.40	0.15	<0.12
1017 Bermuda Dr - Crawl Space	1017 Bermuda Dr	8/11-12/2010	Crawl Space		5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.42	NA	0.35	NA	NA	NA
1018 Bermuda Dr - Crawl Space	1018 Bermuda Dr	8/31/2005	Crawl Space		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	1.0	4.8	0.66	2.0	0.60	1.7 J
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	9/11-12/2006	Crawl Space		0.0	NA**	NA**	ND	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**
1020 Bermuda Dr - crawl	1020 Bermuda Dr	9/20-21/2006	Crawl Space		3.0	1.3	<0.10	ND	<0.050	<0.032	<0.17	<0.14	<0.10	<0.10	0.74 U	3.9	0.62	2.2	0.82	<0.45
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/15-16/2007	Crawl Space		4.0	0.32	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.33	1.2	0.20	0.63	0.22	<0.47
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	7/29-30/2008	Crawl Space		0.0	0.54 J	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	0.19 J	0.14 J	<0.092 UJ	<0.092 UJ	0.36 J	33 J	0.97 J	1.6 J	0.5 J	<0.41 UJ
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/5-6/2009	Crawl Space		5.0	0.36	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	<0.22	6.9	0.26	0.42	0.13	<0.49
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/9-10/2010	Crawl Space		6	0.36	0.14	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.27	NA	0.21	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/2-3/2011	Crawl Space		10.0	0.64	0.18	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.20	NA	0.20	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/16-17/2012	Crawl Space		4.5	0.86	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.26	NA	0.18	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/19-20/2013	Crawl Space		0.0	0.54	<0.079	ND	<0.079	<0.051	<0.14	<0.11	<0.080	NA	0.38	NA	0.43	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/11-12/2014	Crawl Space		7.0	2.7	1.9	ND	<0.021	<0.030	18	<0.030	<0.020	NA	0.19	NA	0.17	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/25-26/2015	Crawl Space		14.0	0.181	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.35	NA	0.19	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	7/25-26/2016	Crawl Space		-6.0	0.107 U	<0.0793	<0.0793	<0.0793	<0.0299	0.122 J	0.0896 J	<0.0802	NA	0.364	NA	0.347	NA	NA	NA
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	7/28-29/2017	Crawl Space		-8.0	0.207	<0.0793	0.0498 J	<0.0793	<0.0511	0.683	<0.109	<0.0802	NA	0.403	NA	0.726	NA	NA	NA
1021 Bermuda Dr - Crawl Space	1021 Bermuda Dr	8/2-3/2012	Crawl Space		5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	1.1	NA	1.30	NA	NA	NA
1023 Bermuda Dr - Crawl Space	1023 Bermuda Dr	7/28-29/2010	Crawl Space		19	1.3	2.0	ND	<0.079	<0.030	7.5	<0.11	<0.080	NA	0.86	NA	2.5	NA	NA	NA
1023 Stimmel Dr - Crawl	1023 Stimmel Dr	8/30-31/2006	Crawl Space		0.0	0.12 J	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	18 J	0.55 J	<0.092	<0.092 UJ	1.6 J	28 J	5.0 J	9.4 J	2.7 J	<0.41 UJ
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	8/31/2005	Crawl Space		6.0	1.0	<0.13	ND	<0.067	<0.043	0.27	0.26	<0.14	<0.14	0.52	3.6	0.35	0.96	0.37	<0.60 UJ
1024 Bermuda Dr - crawl	1024 Bermuda Dr	9/28-29/2006	Crawl Space		1.0	0.68	<0.094	ND	<0.047	<0.030	<0.16	<0.13	<0.096	<0.096	1.0	2.0	0.38	1.2	0.42	<0.42
1024 Bermuda Dr - Crawl	1024 Bermuda Dr	7/12-13/2007	Crawl Space		2.5	0.99	<0.098	ND	<0.049	<0.032	<0.17	<0.14	<0.10	<0.10	0.24	0.92	0.15	0.38	0.12	<0.45
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/16-17/2008	Crawl Space		3.0	1.7	<0.10	ND	<0.050	<0.032	0.31	<0.14	<0.10	0.94	0.36	1.4	0.16	0.45	0.18	<0.45
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/27-28/2009	Crawl Space		10.0	0.53	<0.13	ND	<0.067	<0.043	<0.23	<0.18	<0.14	<0.14	0.46	1.4	0.21	0.57	0.28	<0.61
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	9/20-21/2010	Crawl Space		5	0.86	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.24	NA	0.22	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	8/15-16/2011	Crawl Space		12	0.59	<0.079	ND	<0.079	<0.030	2.3	<0.11	<0.080	NA	2.3	NA	7.8	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/12-13/2012	Crawl Space		6.0	0.86	0.26	ND	<0.079	<0.030	1.6	<0.11	<0.080	NA	0.45	NA	0.30	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/22-23/2013	Crawl Space		2.0	0.42	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.24	NA	1.90	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/22-23/2014	Crawl Space		0.0	0.2	1.3	ND	<0.021	<0.030	0.88	<0.030	<0.020	NA	0.32	NA	2.0	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	8/12-13/2015	Crawl Space		6.0	0.344	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.137	NA	0.24	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/26-27/2016	Crawl Space		-6.0	0.571 J	<0.0793	0.0668 J	<0.0793	<0.0299	0.0810 J	<0.109	<0.0802	NA	0.467 J+	NA	0.375	NA	NA	NA
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/26-27/2017	Crawl Space		-2.0	0.423	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.291	NA	1.85	NA	NA	NA
1024 Stimmel Dr - Crawl	1024 Stimmel Dr	9/7-8/2006	Crawl Space		0.0	<0.12 UJ	<0.090 UJ	ND	<0.045 UJ	<0.029 UJ	<0.15 UJ	<0.12 UJ	<0.092	<0.092 UJ	0.72 J	2.5 J	0.46 J	1.6 J	0.76 J	<0.41 UJ
1025 Bermuda Dr - Crawl Space	1025 Bermuda Dr	8/30/2005	Crawl Space		6.0	0.61	<0.13	ND	<0.067	<0.043	<0.23	<0.18	<0.14	<0.14	1.0	7.3	0.91	3.1	0.93	<0.60
1027 Bermuda Dr - Crawl Space	1027 Bermuda Dr	9/6/2005	Crawl Space		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	<0.19	<0.14	<0.14	0.45	1.6	0.23	0.60	0.18	<0.62 UJ
1029 Stimmel Dr - Crawl Space	1029 Stimmel Dr	7/19/2006	Crawl Space		4.0	<0.17	<0.12	ND	<0.061	<0.040	1.0	<0.17	<0.12	<0.12	0.56	2.7	0.48	1.6	0.60	<0.56
1033 Bermuda Dr - Crawl Space	1033 Bermuda Dr	9/7/2005	Crawl Space		7.5	<0.19	<0.14	ND	<0.071	<0.046	0.82	<0.20	<0.14	<0.14	0.64	2.9	0.42	1.1	0.35	<0.64 UJ
1039 Stimmel Dr - Crawl Space	1039 Stimmel Dr	1/11/2006	Crawl Space		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	<0.19	<0.14	<0.14	0.87	2.0	0.40	1.3	0.51	<0.62
1040 Stimmel Dr - Crawl Space	1040 Stimmel Dr	9/6/2005	Crawl Space		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.42	1.5	0.22	0.60	0.18	<0.64 UJ
1043 Stimmel Dr - Crawl Space	1043 Stimmel Dr	9/8/2005	Crawl Space		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.31	0.76	<0.15	0.55	0.17	<0.63 UJ
1200 Thames Dr - Crawl Space	1200 Thames Dr	8/24/2005	Crawl Space		7.0	0.77	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.46	1.5	0.20	0.50	0.17	<0.63 UJ
1200 Thames Dr - crawl	1200 Thames Dr	9/28-29/2006	Crawl Space		1.5	0.38	<0.095	ND	<0.048	<0.031	<0.16	<0.13	<0.097	<0.097	1.3	3.4	0.51</			

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)				
					Residential Indoor Air ESL (beginning 2016):					0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
					Previous Residential Indoor Air ESL (through 2015):					0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1220 Stimel Ct - Crawl Space	1220 Stimel Ct	8/25-26/2014	Crawl Space		7.0	0.64	<0.031	ND	<0.021	<0.030	8.8	<0.030	<0.020	NA	0.32	NA	0.37	NA	NA	NA	NA			
1220 Stimel Ct - Crawl Space	1220 Stimel Ct	8/17-18/2015	Crawl Space		5.0	0.185	0.0721 J	<0.0793	<0.0793	<0.0299	6.13	0.0370 J	<0.0802	NA	0.524	NA	0.139	NA	NA	NA	NA			
1220 Stimel Ct - Crawl Space	1220 Stimel Ct	07/27-28/2017	Crawl Space		0.0	0.103 J	<0.0793	<0.0793	<0.0793	<0.0511	0.328	<0.109	<0.0802	NA	0.193	NA	0.197	NA	NA	NA	NA			
1220 Stimel Ct - 1st Floor	1220 Stimel Ct	8/24-8/25/2017	Crawl Space		-7.0	<0.429	<0.0793	<0.0793	<0.0793	<0.0511	0.175 J	<0.0802	<0.0802	NA	0.293	NA	2.36	NA	NA	NA	NA			
1220 Thames (crawl)	1220 Thames Dr	2/19/2004	Crawl Space		2.5	1.4	<0.12	ND	<0.059	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/30/2005	Crawl Space	YES	7.5	<0.19	<0.14	ND	<0.069	<0.045	0.24	0.24	<0.14	<0.14	0.66	4.1	0.52	1.6	0.51	<0.63 UJ				
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/14-15/2008	Crawl Space	YES	3.5	<0.14	<0.10	ND	<0.051	<0.033	0.32	<0.14	<0.10	<0.10	0.44	1.5	0.18	0.52	0.20	<0.46				
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/5-6/2009	Crawl Space	YES	5.0	0.26	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	0.26	1.4	0.13	0.34	0.12	<0.49				
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/5-6/2010	Crawl Space	YES	6.0	<0.11	<0.079	ND	<0.079	<0.030	0.16	<0.11	<0.080	NA	0.42	NA	0.36	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/12-13/2011	Crawl Space	YES	0.0	<0.11	0.22	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.29	NA	0.43	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/30-31/2012	Crawl Space	YES	5.0	0.49	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.57	NA	0.82	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/22-23/2013	Crawl Space	YES	0.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	0.24	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/21-22/2014	Crawl Space	YES	6.0	<0.039	<0.031	ND	<0.021	<0.030	0.29	<0.030	<0.020	NA	1	NA	0.52	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/13-14/2015	Crawl Space	YES	5.0	0.185	0.0376 J	0.0411 J	0.0305 J	<0.0299	0.25	0.103 J	0.0350 J	NA	0.331	NA	0.348	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/23-24/2016	Crawl Space	YES	-9.5	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.150	0.0387 J	<0.0802	NA	0.277 J+	NA	0.255	NA	NA	NA				
1220 Thames Dr - Crawl Space	1220 Thames Dr	9/12-13/2017	Crawl Space	YES	-5.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.0874 U	0.0649 J	<0.0802	NA	<0.314 U	NA	0.233	NA	NA	NA				
1221 Hookston Road (crawl)	1221 Hookston Rd	9/10/2004	Crawl Space		5.0	0.32	<0.13	ND	<0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1221 Hookston Rd - Crawl Space	1221 Hookston Rd	11/29/2005	Crawl Space		6.5	0.20	<0.14	ND	<0.068	<0.044	<0.23	<0.19	<0.14	<0.14	1.2	4.3	0.51	1.5	0.51	<0.62				
1221 Hookston - crawl	1221 Hookston Rd	9/28-29/2006	Crawl Space		1.0	<0.13	<0.094	ND	<0.047	<0.030	0.16	<0.13	<0.096	<0.096	0.80	2.8	0.70	2.1	0.65	<0.42				
1221 Hookston Rd - Crawl Space	1221 Hookston Rd	8/23-24/2007	Crawl Space		2.0	0.28	<0.097	ND	<0.048	<0.031	0.18	<0.13	<0.099	0.18	0.59	3.2	0.38	1.0	0.36	<0.44				
1221 Hookston Rd - Crawl Space	1221 Hookston Rd	8/24-25/2009	Crawl Space		5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	0.14	0.74	1.9	0.23	0.63	0.27	<0.49				
1221 Hookston Rd - Crawl Space	1221 Hookston Rd	7/30-31/2012	Crawl Space		7.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.93	NA	0.91	NA	NA	NA				
1221 Thames Dr - Crawl Space	1221 Thames Dr	8/25/2005	Crawl Space		7.0	1.8	<0.14	ND	<0.069	<0.045	0.32	0.50	<0.14	<0.14	1.1	7.2	0.59	1.7	0.49	<0.63 UJ				
1221 Thames Dr - Crawl Space	1221 Thames Dr	10/4-5/2006	Crawl Space		1.0	<0.13	<0.094	ND	<0.047	<0.030	0.21	<0.13	<0.096	<0.096	0.60	2.3	0.37	1.3	0.47	<0.42				
1221 Thames Dr - Crawl Space	1221 Thames Dr	7/23-24/2008	Crawl Space	YES	3.5	0.27	<0.10	ND	<0.051	<0.033	0.82	0.25	<0.10	0.13	0.78	5.5	0.84	2.8	1.1	<0.46				
1221 Thames Dr - Crawl Space	1221 Thames Dr	8/11-12/2009	Crawl Space	YES	8.0	<0.17	<0.12	ND	<0.061	<0.040	<0.21	<0.17	<0.12	<0.12	0.30	1.4 U	0.18 U	0.51 U	0.18 U	<0.56				
1221 Thames Dr - Crawl Space	1221 Thames Dr	7/28-29/2010	Crawl Space	YES	5.0	0.11	0.17	ND	<0.079	<0.030	<0.14	0.33	<0.08	NA	0.35	NA	0.56	NA	NA	NA				
1221 Thames Dr - 1st Floor Master Bedroom - Crawl Space	1221 Thames Dr	9/27-28/2010	Crawl Space	YES	6.5	0.15	0.21	ND	<0.079	<0.030	1.8	0.29	<0.080	NA	0.96	NA	0.95	NA	NA	NA				
1221 Thames Dr - 1st Floor Master BR Crawl	1221 Thames Dr	8/2-3/2011	Crawl Space	YES	6.0	<0.11	<0.079	ND	<0.079	<0.030	0.15	<0.11	<0.080	NA	0.22	NA	0.26	NA	NA	NA				
1221 Thames Dr - 1st Floor Master BR Crawl	1221 Thames Dr	8/14-15/2012	Crawl Space	YES	9.0	0.64	0.13	ND	<0.079	<0.030	0.88	<0.11	<0.080	NA	0.86	NA	2.2	NA	NA	NA				
1250 Hookston Rd - Crawl Space	1250 Hookston Rd	8/24/2005	Crawl Space		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	0.18 J	<0.14	<0.14	0.56	16	1.1	2.9	0.61	<0.62 UJ				
1260 Waterloo (crawl)	1260 Waterloo Ct	2/26/2004	Crawl Space		n/a	hold	hold	ND	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1261 Hookston Rd - Crawl Space	1261 Hookston Rd	8/23/2005	Crawl Space		6.5	<0.18	<0.14	ND	<0.068	<0.044	0.42	0.82	<0.14	<0.14	2.2	10	1.5	5.5	1.4	<0.62				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	7/23-24/2008	Crawl Space		2.5	0.97	<0.098	ND	<0.049	<0.032	<0.17	<0.14	<0.10	<0.10	0.48	1.8	0.18	0.46	0.19	<0.45				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	8/31-9/1/2009	Crawl Space		4.5	0.87	<0.11	ND	<0.053	<0.034	<0.18	<0.15	<0.11	<0.11	0.44	2.8	0.50	1.5	0.46	<0.48				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	8/22-8/23/2011	Crawl Space		4.0	1.1	0.17	ND	<0.079	<0.030	0.14	<0.11	<0.080	NA	0.38	NA	0.25	NA	NA	NA				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	7/19-20/2012	Crawl Space		4.5	2.2	0.19	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.27	NA	0.30	NA	NA	NA				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	11/12-13/2012	Crawl Space		5.0	0.43	<0.079	ND	<0.079	<0.030	0.24	<0.11	<0.080	NA	1.40	NA	0.61	NA	NA	NA				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	7/29-30/2013	Crawl Space		5.0	0.96	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.48	NA	0.16	NA	NA	NA				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	7/30-31/2014	Crawl Space		12.0	0.75	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.61 U	NA	0.52	NA	NA	NA				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	8/14-15/2014	Crawl Space		4.0	0.54	<0.031	ND	<0.021	<0.030	0.22	<0.030	<0.020	NA	0.2	NA	0.23	NA	NA	NA				
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	8/4-5/2016	Crawl Space		-18.0	0.596	<0.159	<0.159	<0.159	<0.0598	0.0845 J	<0.218	<0.160	NA	0.294	NA	0.159 J	NA	NA	NA				
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	9/11-12/2006	Crawl Space		4.5	0.37	<0.12	ND	<0.063	<0.040	0.26	<0.17	<0.13	<0.13	1.5	8.7	1.2	3.7	1.2	<0.57				
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	10/15-16/2007	Crawl Space		1.5	<0.13	<0.095	ND	<0.048	<0.031	<0.16	<0.13	<0.097	<0.097	0.42	2.4	0.16	0.51	0.25	<0.43				
1261 Waterloo Ct - Crawl Space Dup	1261 Waterloo Ct	10/15-16/2007	Crawl Space		4.0	<0.14	<0.10	ND	<0.052	0.025 J	<0.18	<0.14	<0.11	<0.11	0.42	2.5	0.39	1.1	0.60	<0.47				
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	7/29-30/2008	Crawl Space		7.5	<0.16	<0.12	ND	<0.060	<0.039	<0.21	<0.16	<0.12	<0.12	<0.24	1.0	<0.13	0.29	<0.13	<0.55 UJ				
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	10/29-30/2014	Crawl Space		1	<0.039	<0.031	ND	<0.021	<0.030	<0.030	<0.030	<0.020	NA	0.96	NA	0.52	NA	NA	NA				
1270 Trafalgar Ct - Crawl Space	1270 Trafalgar Ct	8/24/2005	Crawl Space		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	0.46	3.0	0.35	0.89	0.25	<0.66 UJ				
1270 Waterloo (crawl)	1270 Waterloo Ct	3/16/2004	Crawl Space		5.0	hold	hold	ND	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA				
1270 Waterloo Ct - Crawl Space	1270 Waterloo Ct	8/23/2005	Crawl Space		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	1.1	4.1	0.54	1.7	0.53	<0.66 UJ				
1270 Waterloo Ct - Crawl Space	1270 Waterloo Ct	9/6-7/2006	Crawl Space		2.0	<0.13	<0.097	ND	<0.048															

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
1321 Hampshire Ct - Crawl Space	1321 Hampshire Ct	8/29/2005	Crawl Space		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	<0.19	<0.14	<0.14	0.58	2.6	0.34	0.84	0.23	<0.62
1330 Aberdeen - Crawl	1330 Aberdeen Ct	8/31-9/1/2006	Crawl Space		2.0	<0.13	<0.097	ND	<0.048	<0.031	0.56	<0.13	<0.099	<0.099	0.94	5.4	0.92	3.3	1.0	<0.44
1350 Edinburgh Ct - Crawl Space	1350 Edinburgh Ct	9/25-26/2006	Crawl Space		2.5	0.14	<0.098	ND	<0.049	<0.032	0.25	0.15	<0.10	<0.10	1.4	25	2.4	7.0	2.3	<0.45
1351 Edinburgh Ct - Crawl Space	1351 Edinburgh Ct	9/20/2005	Crawl Space		7.5	<0.19	<0.14	ND	<0.071	<0.046	0.33	<0.20	<0.14	<0.14	0.95	4.3	0.54	1.6	0.53	<0.64
Ambient Air Quality Samples:																				
Ambient Air - 11/22/05	989 Stimel Dr	11/22/2005	Back Yard		5.0	<0.17	<0.13	ND	<0.064	<0.041	0.31	<0.18	<0.13	<0.13	1.9	8.5	1.1	3.6	1.2	<0.58
Ambient Air - 9/22/05	992 Bermuda Dr	9/22/2005	Back Yard		9.0	<0.20	<0.15	ND	<0.076	<0.049	0.30	<0.21	<0.15	<0.15	1.0	3.6	0.48	1.3	0.40	<0.69
1000 Hampton (ambient air)	1000 Hampton Dr	1/21/2004	Back Yard		6.0	<0.18	<0.14	ND	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ambient Air - 7/30/09	1000 Hampton Dr	7/30-31/2009	Back Yard		8.5	<0.17	<0.13	ND	<0.063	<0.041	<0.22	<0.17	<0.13	<0.13	0.27	0.82	<0.14	0.36	<0.14	<0.57
Ambient Air - 8/27/08	1001 Stimel Dr	8/27-28/2008	Back Yard		8.0	<0.17	<0.12	ND	<0.061	<0.040	<0.21	<0.17	<0.12	<0.12	0.8	4	0.69	2.5	0.88	<0.56
Ambient Air - 7/20/2011	1001 Stimel Dr	7/20-21/2011	Back Yard		9.0	<0.11	0.091	ND	<0.079	<0.030	0.39	<0.11	<0.080	NA	0.31	NA	0.28	NA	NA	NA
Ambient Air - 10/5/05	1002 Hampton Dr	10/5/2005	Back Yard		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	<0.19	<0.14	<0.14	0.63	1.6	0.33	1.2	0.43	<0.62
Ambient Air - 9/13/06	1002 Hampton Dr	9/13-14/2006	Back Yard		0.0	<0.14 UJ	<0.11 UJ	ND	<0.053 UJ	<0.034 UJ	<0.18 UJ	<0.15 UJ	<0.11	<0.11 UJ	0.37 J	0.95 J	0.16 J	0.54 J	0.18 J	<0.48 UJ
Ambient Air - 8/29/07	1002 Hampton Dr	8/29-30/2007	Backyard Patio		8.0	<0.17	<0.12	ND	<0.061	<0.040	<0.21	<0.17	<0.12	<0.12	0.52	2.2	0.36	1.2	0.40	<0.56
Ambient Air - 10/16/07	1002 Hampton Dr	10/16-17/2007	Back yard		6.0	<0.15	<0.11	ND	<0.056	<0.036	<0.19	<0.15	<0.11	<0.11	0.64	1.7	0.29	0.92	0.34	<0.51
Ambient Air (1002 Hampton) - 12/27/07	1002 Hampton Dr	12/27-28/2007	Back Yard		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.70	1.2	0.19	0.51	0.18	<0.47
Ambient Air - 5/27/08	1002 Hampton Dr	5/27-28/2008	Back Yard		6.5	<0.18	<0.13	ND	<0.067	<0.043	<0.23	<0.18	<0.14	<0.14	0.38	0.88	<0.14	0.4	<0.14	<0.60
Ambient Air - 12/10/09	1002 Hampton Dr	12/10-11/2009	Back Yard		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	1.6	1.5	0.18	0.38	0.14	<0.50
Ambient Air - 8/12/10	1002 Hampton Dr	8/12-13/2010	Backyard		12	<0.11	<0.079	ND	<0.079	<0.030	0.21	<0.11	<0.080	NA	0.30	NA	0.27	NA	NA	NA
Ambient Air - 7/18/2011	1002 Hampton Dr	7/18-19/2011	Backyard		3.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.18	NA	0.15	NA	NA	NA
Ambient Air - 7/25/13	1002 Hampton Dr	7/25-26/2013	Backyard		5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.25	NA	0.18	NA	NA	NA
Ambient Air - 12/16/15	1002 Hampton Dr	12/16-17/2015	Backyard		1	<0.107	0.0984	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	1.48	NA	0.407	NA	NA	NA
Ambient Air - 7/25/16	1002 Hampton Dr	7/25-26/2016	Backyard		-1.0	0.314	<0.0793	0.0229 J	<0.0793	<0.0299	0.222	<0.109	<0.0802	NA	0.481	NA	0.436	NA	NA	NA
Ambient Air - 7/29/13	1003 Stimel Dr	7/29-30/2013	Backyard		6.0	0.13	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.51	NA	0.19	NA	NA	NA
Ambient Air - 7/28/14	1003 Stimel Dr	7/28-29/2014	Backyard		6.0	<0.039	<0.031	ND	<0.021	<0.030	0.28	<0.030	<0.020	NA	0.67	NA	13.00	NA	NA	NA
Ambient Air - 9/2/15	1003 Stimel Dr	9/2-3/2015	Backyard		5.5	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.11	NA	<0.130	NA	NA	NA
Ambient Air - 7/27/17	1003 Stimel Dr	7/27-28-2017	Backyard		-4.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.0991 J	<0.109	<0.0802	NA	0.338	NA	0.872	NA	NA	NA
Ambient Air - 9/14/05	1004 Hampton Dr	9/14/2005	Back Yard		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.44	1.2	0.17	0.49	0.15	<0.63 UJ
Ambient Air - 8/20/14	1004 Hampton Dr	8/20-21/2014	Backyard		8.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.20	NA	0.27	NA	NA	NA
Ambient Air - 9/6/05	1005 Stimel Dr	9/6/2005	Back Yard		14.5	<0.28	<0.20	ND	<0.10	<0.066	<0.35	<0.28	<0.21	<0.21	0.47	1.5	<0.22	0.50	<0.22	<0.93 UJ
Ambient Air - 9/26/06	1005 Stimel Dr	9/26-27/2006	Back Yard		2.5	<0.13	<0.098	ND	<0.049	<0.032	<0.17	<0.14	<0.10	<0.10	0.60	2.6	0.38	1.3	0.44	<0.45
Ambient Air - 10/16/08	1005 Stimel Dr	10/16-17/2008	Back Yard		6.0	0.18	<0.11	ND	<0.056	<0.036	0.26	<0.15	<0.11	<0.11	0.97	3.9	0.59	1.9	0.61	<0.51 UJ
Ambient Air - 3/24/15	1005 Stimel Dr	3/24-25/2015	Backyard		25.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.32	NA	0.20	NA	NA	NA
Ambient Air - 3/31/15	1005 Stimel Dr	3/31-4/1/2015	Backyard		6.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.45	NA	0.13 J	NA	NA	NA
Ambient Air - 7/29/09	1006 Hampton Dr	7/29-30/2009	Back Yard		11.0	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.50	1.1	<0.16	0.34	<0.16	<0.64
Ambient Air - 8/16/10	1006 Hampton Dr	8/16-17/2010	Back Yard		7	<0.11	<0.079	ND	<0.079	<0.030	0.32	<0.11	<0.080	NA	0.73	NA	0.43	NA	NA	NA
Ambient Air - 7/26/2011	1006 Hampton Dr	7/26-27/2011	Back Yard		7.5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.28	NA	0.20	NA	NA	NA
Ambient Air - 10/4/06	1006 Stimel Dr	10/4-5/2006	Back Yard		0.0*	<0.12 UJ	<0.087 UJ	ND	<0.044 UJ	<0.028 UJ	<0.15 UJ	<0.12 UJ	<0.089	<0.089 UJ	0.84 J	2.1 J	0.33 J	1.2 J	0.43 J	<0.40 UJ
Ambient Air - 8/21/22/007	1006 Stimel Dr	8/21-22/2007	Back Yard		3.5	<0.14	<0.10	ND	<0.051	<0.033	<0.18	<0.14	<0.10	<0.10	0.51	1.8	0.30	0.95	0.33	<0.46
Ambient Air - 11/6/08	1006 Stimel Dr	11/6-7/2008	Back Yard		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	0.98	2.7	0.49	1.7	0.6	<0.50
Ambient Air - 8/11/09	1006 Stimel Dr	8/11-12/2009	Back Yard		6.0	<0.15	<0.11	ND	<0.056	<0.036	<0.19	<0.15	<0.11	<0.11	0.37	1.7	0.22	0.65	0.22	<0.51
Ambient Air - 8/10/10	1006 Stimel Dr	8/10-11/2010	Back Yard		7	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.30	NA	0.23	NA	NA	NA
Ambient Air - 9/25/12	1006 Stimel Dr	9/25-26/2012	Back Yard		12	<0.11	<0.079	ND	<0.079	0.036	<0.14	<0.11	<0.080	NA	1.10	NA	0.52	NA	NA	NA
Ambient Air	1007 Stimel Dr	9/18-19/2006	Back yard		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	0.83	1.6	0.28	0.94	0.33	<0.50
Ambient Air - 10/13/08	1007 Stimel Dr	10/13-14/2008	Back Yard		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	0.76	2.9	0.47	1.6	0.54	<0.50
Ambient Air - 7/21/09	1007 Stimel Dr	7/21-22/2009	Back Yard		5.8	<0.15	<0.11	ND	<0.056 UJ	0.030 J	<0.19	<0.15	<0.11	<0.11	0.27	0.66	<0.12	<0.24	<0.12	<0.51
Ambient Air - 8/2/2010	1007 Stimel Dr	8/2-3/2010	Back Yard		5	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	<0.064	NA	<0.13	NA	NA	NA
Ambient Air - 8/12/13	1007 Stimel Dr	8/12-13/2013	Backyard		5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	0.29	NA	NA	NA
Ambient Air - 8/25/14	1007 Stimel Dr	8/25-26/2014	Backyard		17.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.16	NA	0.13	NA	NA	NA
Ambient Air - 9/14/17	1007 Stimel Dr	9/14-15/2017	Backyard		N/A	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.275	NA	0.167	NA	NA</	

Table 3
 Volatile Organic Compounds Detected in Air Samples
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
Residential Indoor Air ESL (beginning 2016):						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
Previous Residential Indoor Air ESL (through 2015):						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
Ambient Air - 8/19/15	1015 Stimel Dr	8/19-20/2015	Backyard		0.5	<0.107	<0.0793	ND	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.224	NA	0.231	NA	NA	NA
Ambient Air - 8/30/06	1017 Bermuda Dr	8/30-31/2006	Back Yard		NA*	NA*	NA*	ND	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
Ambient Air - 7/15/08	1017 Bermuda Dr	7/15-16/2008	Back Yard		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.37	0.64	<0.11	0.26	<0.11	<0.47 UJ
Ambient Air - 8/11/10	1017 Bermuda Dr	8/11-12/2010	Back Yard		13	<0.11	0.71	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	<0.13	NA	NA	NA
Ambient Air - 8/31/05	1018 Bermuda Dr	8/31/2005	Back Yard		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.53	2.1	0.29	0.82	0.26	<0.64 UJ
Ambient Air - 7/29/08	1020 Bermuda Dr	7/29-30/2008	Back Yard		6.5	<0.16	<0.11	ND	<0.057	<0.037	<0.20	<0.16	<0.12	<0.12	<0.23	0.74	<0.12	0.29	<0.12	<0.52 UJ
Ambient Air - 8/5/09	1020 Bermuda Dr	8/5-6/2009	Back Yard		7.0	<0.16	<0.12	ND	<0.059	<0.038	<0.20	<0.16	<0.12	<0.12	<0.24	0.75	<0.13	<0.26	<0.13	<0.53
Ambient Air - 8/9/10	1020 Bermuda Dr	8/9-10/2010	Back Yard		6	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.27	NA	0.20	NA	NA	NA
Ambient Air - 8/16/12	1020 Bermuda Dr	8/16-17/2012	Back Yard		8	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.30	NA	0.16	NA	NA	NA
Ambient Air - 8/19/13	1020 Bermuda Dr	8/19-20/2013	Back Yard		6.0	<0.11	<0.079	ND	<0.079	<0.051	<0.14	<0.11	<0.080	NA	0.38	NA	0.28	NA	NA	NA
Ambient Air - 8/11/14	1020 Bermuda Dr	8/11-12/2014	Back Yard		8.0	3.9	0.59	ND	3.8	2.1	0.43	0.13	0.16	NA	0.23	NA	0.20	NA	NA	NA
Ambient Air - 8/25/15	1020 Bermuda Dr	8/25-26/2015	Backyard		8.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.349	NA	0.147	NA	NA	NA
Ambient Air - 7/28/17	1020 Bermuda Dr	07/28-29/2017	Backyard		-10.0	0.0895 J	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.343	NA	0.328	NA	NA	NA
Ambient Air - 8/2/12	1021 Bermuda Dr	8/2-3/2012	Back Yard		5.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.27	NA	0.30	NA	NA	NA
Ambient Air - 7/12/07	1024 Bermuda Dr	7/12-13/2007	Back Yard		5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	0.23	0.64	<0.12	<0.24	<0.12	<0.49
Ambient Air - 7/16/08	1024 Bermuda Dr	7/16-17/2008	Back Yard		5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	0.34	0.76	0.12	0.33	0.14	<0.49
Ambient Air - 7/27/09	1024 Bermuda Dr	7/27-28/2009	Back Yard		7.5	<0.16	<0.12	ND	<0.060	<0.039	<0.21	<0.16	<0.12	<0.12	0.32	0.98	0.18	0.43	0.17	<0.55
Ambient Air - 9/20/2010	1024 Bermuda Dr	9/20-21/2010	Back Yard		1.5	<0.11	0.11	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.38	NA	0.37	NA	NA	NA
Ambient Air - 8/15/2011	1024 Bermuda Dr	8/15-16/2011	Back Yard		9.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	4.5	NA	1.0	NA	NA	NA
Ambient Air - 7/12/2012	1024 Bermuda Dr	7/12-13/2012	Back Yard		7.0	0.32	<0.079	ND	<0.079	<0.030	0.29	<0.11	<0.080	NA	0.42	NA	0.21	NA	NA	NA
Ambient Air - 7/22/14	1024 Bermuda Dr	7/22-23/2014	Back Yard		0.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.15	NA	0.29	NA	NA	NA
Ambient Air - 7/26/16	1024 Bermuda Dr	7/26-27/2016	Backyard		-1.0	<0.107	<0.0793	0.15	<0.0793	<0.0299	0.185	<0.109	<0.0802	NA	0.565	NA	0.371	NA	NA	NA
9/7/06 Ambient Air	1024 Stimel Dr	9/7-8/2006	Back Yard		2.0	<0.13	<0.097	ND	<0.048	<0.031	0.19	<0.13	<0.099	<0.099	0.62	1.9	0.37	1.1	0.42	<0.44
Ambient Air - 7/19/06	1029 Stimel Dr	7/19/2006	Back Yard		5.5	<0.18	<0.13	ND	<0.065	<0.042	0.28	<0.18	<0.13	<0.13	0.39	1.4	0.26	0.84	0.31	<0.59
Ambient Air - 9/7/05	1033 Bermuda Dr	9/7/2005	Back yard		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	0.46	1.5	0.20	0.54	0.18	<0.66 UJ
Ambient Air - 1/11/06	1039 Stimel Dr	1/11/2006	Back Yard		6.5	<0.18	<0.14	ND	<0.068	<0.044	<0.23	0.18 J	<0.14	<0.14	0.88	1.8	0.36	1.1	0.42	<0.62
Ambient Air - 9/8/05	1043 Stimel Dr	9/8/2005	Back yard		7.0	<0.19	<0.14	ND	<0.069	<0.045	<0.24	<0.19	<0.14	<0.14	0.31	0.81	<0.15	<0.30	<0.15	<0.63 UJ
Ambient Air - 9/28/06	1200 Thames Dr	9/28-29/2006	Back Yard		3.0	<0.14	<0.10	ND	<0.050	<0.032	<0.17	<0.14	<0.10	<0.10	0.75	2.2	0.40	1.3	0.45	<0.45
Ambient Air - 10/10/2007	1210 Thames Drive	10/10-11/2007	Back Yard		3.5	<0.14	<0.10	ND	<0.051	<0.033	<0.18	<0.14	<0.10	<0.10	0.51	1.3	0.25	0.79	0.34	<0.46
Ambient Air - 8/14/08	1210 Thames Drive	8/14-15/2008	Back Yard		5.0	<0.15	<0.11	ND	<0.054	<0.035	<0.18	<0.15	<0.11	<0.11	0.54	1.7	0.27	0.85	0.34	<0.49
Ambient Air - 8/15/2013	1210 Thames Dr	8/15-16/2013	Backyard		6.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.27	NA	0.26	NA	NA	NA
Ambient Air - 12/6/07	1211 Thames Dr	12/6-7/2007	Back Yard		7.5	<0.16	<0.12	ND	<0.060	<0.038	<0.20	<0.16	<0.12	<0.12	0.89	2.0	0.32	1.1	0.41	<0.54
Ambient Air - 8/17/09	1211 Thames Dr	8/17-18/2009	Back Yard		6.0	<0.15	<0.11	ND	<0.056	<0.036	<0.19	<0.15	<0.11	<0.11	0.78	1.5	0.17	0.36	0.13	<0.51
Ambient Air - 8/6/12	1211 Thames Dr	8/6-7/2012	Back Yard		9.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.26	NA	0.23	NA	NA	NA
Ambient Air - 8/14/13	1211 Thames Dr	8/14-15/2013	Backyard		6.0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.21	NA	0.17	NA	NA	NA
Ambient Air - 8/12/08	1220 Stimel Ct	8/12-13/2008	Back Yard		12.5	<0.21	<0.15	ND	<0.077	<0.050	<0.26	<0.21	<0.16	<0.16	0.60	2.0	0.30	1.0	0.38	<0.70
Ambient Air - 8/23/10	1220 Stimel Ct	8/23-24/2010	Back Yard		6	<0.11	0.099	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.48	NA	0.52	NA	NA	NA
Ambient Air - 8/29/11	1220 Stimel Ct	8/29-30/2011	Back Yard		0	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.23	NA	0.14	NA	NA	NA
Ambient Air - 8/4/14	1220 Stimel Ct	8/4-5/2014	Backyard		6.0	0.36	<0.031	ND	<0.021	0.051	0.23	<0.030	<0.020	NA	0.23	NA	0.16	NA	NA	NA
Ambient Air - 8/17/15	1220 Stimel Ct	8/17-18/2015	Backyard		7.0	0.142	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	0.0319 J	<0.0802	NA	0.38	NA	0.216	NA	NA	NA
Ambient Air - 8/4/16	1220 Stimel Ct	8/4-5/2016	Backyard		-2.5	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.0332 J	<0.109	<0.0802	NA	0.404	NA	0.0977 J	NA	NA	NA
Ambient Air - 8/24/17	1220 Stimel Ct	8/24-8/25/2017	Backyard		-1.0	0.451	<0.0793	<0.0793	<0.0793	<0.0511	0.122 J	<0.109	<0.0802	0.233	0.255 J	NA	0.255 J	NA	NA	NA
1220 Thames (ambient air)	1220 Thames Dr	2/19/2004	Back Yard		4.0	0.21	<0.12	ND	<0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ambient Air - 9/20/06	1220 Thames Dr	9/20-21/2006	Back yard		20.5	<0.38	<0.28	ND	<0.14	<0.092	<0.49	<0.39	<0.29	<0.29	1.6	2.8	0.48	1.7	0.60	<1.3
Ambient Air - 8/8/07	1220 Thames Dr	8/8-9/2007	Back Yard		28.0	NA*	NA*	ND	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
Ambient Air - 7/14/08	1220 Thames Dr	7/14-15/2008	Back Yard		5.5	<0.15	<0.11	ND	<0.055	<0.036	<0.19	<0.15	<0.11	<0.11	0.34	0.77	0.13	0.37	0.13	<0.50 UJ
Ambient Air - 8/2/2010	1220 Thames Dr	8/5-6/2010	Back Yard		5	<0.11	0.29	ND	<0.079	<0.030	<0.14	0.54	<0.080	NA	0.70	NA	0.78	NA	NA	NA
Ambient Air - 7/12/2011	1220 Thames Dr	7/12-13/2011	Back Yard		-	<0.11	<0.079	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.14	NA	<0.13	NA	NA	NA
Ambient Air - 8/13/15	1220 Thames Dr	8/13-14/2015	Backyard		0.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.164	NA	0.184	NA	NA	NA
Ambient Air - 8/23/16	1220 Thames Dr	8/23-24/2016	Backyard		-10.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	0.0603 J	<0.109	<0.0802	NA	0.234 J+	NA	0.135	NA	NA	NA

Table 3
Volatile Organic Compounds Detected in Air Samples
Hookston Station
Pleasant Hill, California

Sample ID	Address	Date	Sample Location	VIP System	Final Vacuum (In. Hg)	TCE (µg/m3)	c-1,2-DCE (µg/m3)	t-1,2-DCE (µg/m3)	1,1-DCE (µg/m3)	Vinyl Chloride (µg/m3)	PCE (µg/m3)	1,1,1-TCA (µg/m3)	1,1-DCA (µg/m3)	1,2-DCA (µg/m3)	Benzene (µg/m3)	Toluene (µg/m3)	Ethyl Benzene (µg/m3)	m,p-Xylene (µg/m3)	o-Xylene (µg/m3)	MTBE (µg/m3)
<i>Residential Indoor Air ESL (beginning 2016):</i>						0.48	8.3	63	73	0.0095	0.48	1,000	1.8	0.11	0.097	310	1.1	100	100	11
<i>Previous Residential Indoor Air ESL (through 2015):</i>						0.59	7.3	63	210	0.031	0.41	5,200	1.5	0.12	0.084	310	0.97	100	100	9.4
Ambient Air - 10/29/14	1261 Waterloo Ct	10/29-30/2014	Backyard		3.0	<0.039	<0.031	ND	<0.021	<0.030	<0.030	<0.030	<0.020	NA	0.96	NA	0.48	NA	NA	NA
Ambient Air - 9/6/06	1270 Waterloo Ct	9/6-7/2006	Back Yard		4.5	<0.14	<0.11	ND	<0.053	<0.034	0.27	<0.15	<0.11	<0.11	1.0	4.7	0.84	2.8	1.0	<0.48
Ambient Air - 12/27/07	1270 Waterloo Ct	12/27-28/2007	Back Yard		1.0	<0.12	<0.090	ND	<0.045	<0.029	<0.15	<0.12	<0.092	<0.092	0.86	1.7	0.28	0.90	0.30	<0.41
Ambient Air - 7/26/10	1270 Waterloo Ct	7/26-27/2010	Back Yard		0.0	0.26	0.34	ND	<0.079	<0.030	0.35	0.15	<0.08	NA	0.48	NA	0.82	NA	NA	NA
Ambient Air - 7/22/13	1270 Waterloo Ct	7/22-23/2013	Backyard		7.0	<0.11	0.19	ND	<0.079	<0.030	<0.14	<0.11	<0.080	NA	0.32	NA	0.29	NA	NA	NA
Ambient Air - 7/21/2014	1270 Waterloo Ct	7/21-22/2014	Backyard		5.0	<0.039	<0.031	ND	<0.021	<0.030	<0.031	<0.030	<0.020	NA	0.18	NA	0.18	NA	NA	NA
Ambient Air - 8/12/15	1270 Waterloo Ct	8/12-13/2015	Backyard		6.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0299	<0.136	<0.109	<0.0802	NA	0.203	NA	0.198	NA	NA	NA
Ambient Air - 7/31/17	1270 Waterloo Ct	7/31-8/1/2017	Backyard		0.0	<0.107	<0.0793	<0.0793	<0.0793	<0.0511	<0.136	<0.109	<0.0802	NA	0.389	NA	<0.107	NA	NA	NA
Ambient Air - 8/25/05	1320 Strathmore Ct	8/25/2005	Back Yard		8.0	<0.20	<0.14	ND	<0.072	<0.047	<0.25	<0.20	<0.15	<0.15	0.56	1.4	0.20	0.48	0.16	<0.66 UJ
Ambient Air - 8/29/05	1321 Hampshire Ct	8/29/2005	Back Yard		7.5	<0.19	<0.14	ND	<0.071	<0.046	<0.24	<0.20	<0.14	<0.14	0.49	2.4	0.38	0.81	0.22	<0.64
Ambient Air - 8/31/06	1330 Aberdeen Ct	8/31-9/1/2006	Back Yard		4.0	<0.14	<0.10	ND	<0.052	<0.033	<0.18	<0.14	<0.11	<0.11	0.78	3.7	0.73	2.4	0.82	<0.47
Ambient Air - 9/25/06	1350 Edinburgh Ct	9/25-26/2006	Back yard		3.0	<0.14	<0.10	ND	<0.050	<0.032	0.21	0.14	<0.10	<0.10	1.5	13	1.1	4.1	1.4	<0.45
Ambient Air - 9/20/05	1351 Edinburgh Ct	9/20/2005	Back Yard		8.5	<0.20	<0.15	ND	<0.074	<0.048	0.34	<0.20	<0.15	<0.15	0.85	3.8	0.42	1.2	0.43	<0.67 UJ

Notes:

Samples collected through 2009 were analyzed by AirToxics, Ltd. of Folsom, California; samples collected since 2010 have been analyzed by ESC Lab Sciences of Mt. Juliet, Tennessee. All samples were analyzed by Method TO-15 SIM.

All results reported in micrograms per cubic meter (µg/m³). For chemicals not associated with Hookston Station, select VOCs detected in one or more samples during 2004-2013 are summarized above.

Samples collected during 2004 to July 2006 were collected over a 12-hour interval. Samples collected since July 2006 were collected over a 24-hour interval unless indicated otherwise.

Residential Indoor Air ESLs = Environmental Screening Levels for Indoor Air (Residential Land Use) from California Regional Water Quality Control Board - San Francisco Bay Region.

Highlighted results indicate the detected concentration is greater than the ESL (concentration compared to the established ESL during time of sampling).

Yes - Indicates a vapor intrusion prevention system was operating during time of sample collection

* Final canister vacuums measured by the laboratory in inches of mercury. Vacuums indicated with * are field vacuum measurements; these samples reported positive pressures at the laboratory due to temperature changes between the field and laboratory.

** Grab sample collected over a 30-minute interval

*** Grab sample collected over a 1-minute interval

dup = duplicate sample

N/A = not available

NA = not analyzed

NA* = sample not analyzed due to low sample volume collected (high vacuum reading)

NA** = sample not analyzed; vacuum lost during sample delivery.

UJ = estimated result

J = estimated result

U = sample detections were qualified as nondetect (U) because the constituent was detected at a similar concentration in the trip blank

VIP = Vapor Intrusion Prevention

Abbreviations:

PCE = tetrachloroethene

TCE = trichloroethene

c-1,2-DCE = cis-1,2-dichloroethene

t-1,2-DCE = trans-1,2-dichloroethene

1,1-DCE = 1,1-dichloroethene

1,1-DCA = 1,1-dichloroethane

1,1,1-TCA = 1,1,1-trichloroethane

1,2-DCA = 1,2-dichloroethane

MTBE = methyl tert butyl ether