

26 April 2011 version

Sherwin-Williams Site Cleanup
Emeryville, California

Community Safety Plan

Prepared in conjunction with the
Remedial Design Implementation Plan,
1450 Sherwin Avenue, Emeryville, CA

CDM/Walnut Creek, CA

The Sherwin-
Williams Company

April 2011



Please print or tear this page from the Community Safety Plan and post for easy reference.

Sherwin-Williams Site Remediation Project Communication Contact List

FOR ANY EMERGENCY SITUATION – CALL 911

Emeryville Fire Department: (510) 596-3750 (non-emergency)

Emeryville Police Department: (510) 596-3700 (non-emergency/
dispatch)

CA Dept. of Toxic Substances Control (DTSC):

Nathan Schumacher, nschumac@dtsc.ca.gov toll free (866) 495-5651

or

Nina Bacey, jbacey@dtsc.ca.gov (510) 540-2480

The Sherwin-Williams Company:

Larry Mencin, lrmentin@sherwin.com (216) 577-1007
(East Coast time zone: Cleveland, OH)

CDM/Envirocon Project Team:

24-hour toll-free Community HotLine (866) 848-5307

Public Participation Consultant:

Mara Feeney, mara@marafeeney.com (415) 863-8760

Bay Area Air Quality Management District:

Complaint Hotline: 1 (800) 334-ODOR (1-800-334-6367)

Contact information valid April 2011 through December 2011.

Please print or tear this page from the Community Safety Plan and post for easy reference.

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Attachments:

- 1 Contaminants of Concern at the Site and Actions Proposed to Address Them
- 2 Key Community Contacts
- 3 SCA/ AirLogics Example Air Monitoring Reports
- 4 Community Complaint Log Sheet

Figures:

- Figure 1 Site Location Map
 Figure 2 Site Layout Plan
 Figure 3 Traffic Control Plan

Acronyms:

ARARs	applicable or relevant and appropriate requirements
BAAQMD	Bay Area Air Quality Management District
bgs	below ground surface
CDM	Camp Dresser & McKee Inc.
CDPH	California Department of Public Health
COC	chemical of concern
DTSC	Department of Toxic Substances Control
EBMUD	East Bay Municipal Utility District
FTA	Federal Transportation Authority
MCL	maximum contaminant level
µg/m ³	microgram per cubic meter
NPDES	National Pollutant Discharge Elimination System
Plan	Community Safety Plan
PANA	Park Avenue Neighborhood Association
PHERA	Public Health Evaluation of the Remedial Alternative
PIDs	photo-ionization detectors
PPV	Peak Particle Velocity
SCA	SCA Environmental, Inc.
SVE	soil vapor extraction
S-W	Sherwin-Williams
UPRR	Union Pacific Railroad
VOC	volatile organic compound
Water Board	California Regional Water Quality Control Board

Section 1

Plan Purpose and Project Background

1.1 Purpose

This Community Safety Plan (Plan) has been prepared for community members living and/or working in the vicinity of the planned remediation activities associated with the Sherwin-Williams property in Emeryville, California. The remediation activities will occur on the Sherwin-Williams property, at 1450 Sherwin Avenue, and on a portion of the adjacent Novartis property, and are scheduled to begin in late April 2011. The remediation activities are under the direction of the California Department of Toxic Substances Control (DTSC). This Plan provides information about measures that will be taken to protect the community during Site remediation activities. These measures address exposure to contaminants in soil and groundwater, traffic safety in the neighborhood, monitoring to document Site safety, and communication of information between interested parties.

Development of this Plan included input obtained at community meetings held in Emeryville on April 2, 2008, May 6, 2009, November 5, 2009, December 9, 2009 and September 14, 2010. Sherwin-Williams conducted an additional, separate meeting with Novartis and Bayer to obtain input regarding their specific project concerns. The Plan is considered a “living document” – that is, it will be revised and updated as necessary during project implementation, so that any changes that will improve the effectiveness of this Plan, enhance community protection, and/or improve communications can be made as work progresses. For the latest version of this document, please check the DTSC Envirostor website at:

http://www.dtsc.ca.gov/SiteCleanup/Sherwin_Williams_Emeryville.cfm

1.1.1 Emergency Communications

In the case of an **emergency incident**, local officials and agencies will be notified and appropriate actions will be initiated onsite and in the community if there is an immediate threat to public health. In the event of a **non-emergency incident** or **exceedance** of an air emission threshold concentration, Sherwin-Williams will prepare and post within 24 hours a description of the incident. Also posted will be how the incident was managed, and what modifications will be implemented to prevent a repeat of the incident.

If there is an emergency incident that creates a release of contaminants to the community, residents may be concerned about possible health effects of exposure to the contaminants. Concerned individuals should contact their personal physician. The physician may contact DTSC (Nathan Schumacher) for updated information regarding the release, the contaminants within the release, and the expected contaminant concentrations. A complete list of contaminants to be removed during

the remediation work is included in [Attachment 1](#). Arsenic is the primary chemical of concern at the Site. Information about arsenic is available at: <http://www.atsdr.cdc.gov/tfacts2.pdf>.

1.1.2 Regular Community Communications

Once remediation work gets underway, DTSC will send out work notices to describe discrete activities and also when there is a change in planned project activities or schedule that should be communicated to the adjacent community. Regular sign postings at the site will be used to communicate what has been going on and what is planned to occur next. Weekly E-mail notifications will be sent to interested parties periodically to convey data, cleanup progress reports, and other pertinent information. You may call any one of the community contacts for current information or to report a concern or a problem. If there is immediate concern, please call the 24-hour, 7 day a week community hotline.

1.2 Elements of the Community Safety Plan

A list of contact information is included at the front of this Plan, designed for easy tear-out to place where you can access it quickly. The remainder of Section 1 includes Site background information, including how cleanup goals were established, interim remedial measures that were taken, key studies that have been completed, and remedial actions planned to occur during 2011. Section 2 of this document describes the existing community in the Site vicinity.

Section 3 describes relevant protection thresholds to be used to guide Site cleanup activities. Section 4 summarizes concerns that have been expressed by community members to date about potential hazards and nuisance impacts that could be associated with Site remediation construction activities. Sections 5 and 6 describe measures that will be taken, on- and off-site, to avoid hazards and minimize nuisances that could affect the community, as well as monitoring and response programs that will be implemented. Section 7 summarizes various elements of the communications program, indicating how the community will be kept informed throughout the process, how data will be reported, and how complaints will be addressed and documented. Section 8 identifies sources where more information about the Site can be obtained.

1.3 Project Management

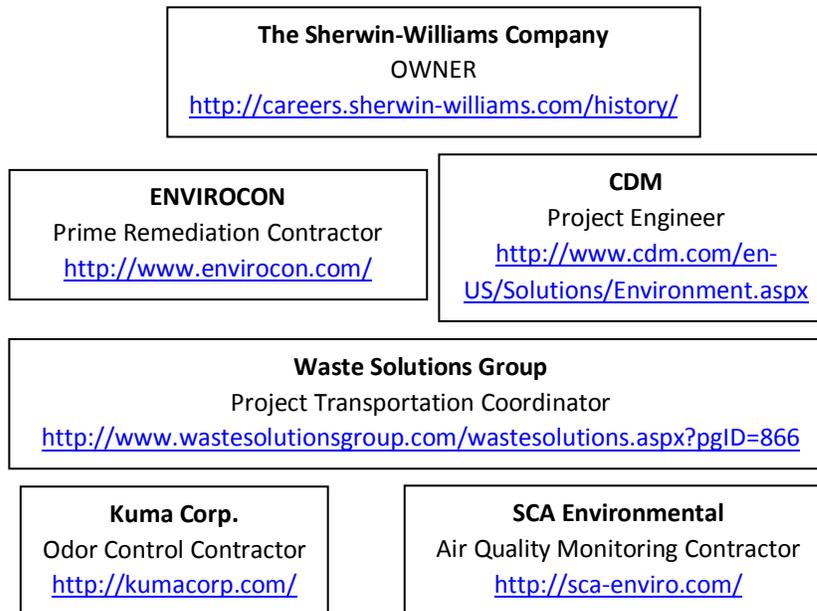
Tino Maestas is the Envirocon construction project manager. Tino will be at the Site during all activities. He will be responsible for coordinating all remediation work according to the approved procedures, and according to the written health and safety plan applicable to every worker on Site. Envirocon is responsible for dust and vapor control via their subcontractor, Kuma Corporation. Envirocon will be performing personnel Health and Safety monitoring for dust and vapor.

David Cline is the CDM Project Manager, reporting directly to Larry Mencin at Sherwin-Williams. David will also be at the Site during all activities, and will be

responsible for all perimeter air monitoring conducted by SCA Environmental, Inc. (SCA), the project perimeter air monitoring contractor.

The figure below provides web links for the companies that will play key roles in the Site remediation work. (Using your mouse, click on the web link to access the company site.)

Key Project Companies and Internet Links



1.4 Where to Direct Questions or Comments

Section 7 describes how DTSC and Sherwin-Williams, as well as others, will convey information to the community during the site remediation process. We encourage community members to bring observations or concerns to the attention of appropriate team members. Please keep the attached tear-out sheet of important contact information handy during site remediation work. We welcome your suggestions for minimizing community impacts as much as possible while achieving site cleanup goals.

FOR ANY EMERGENCY SITUATION - CALL 911

24-hour toll-free Project Community Hotline - (866) 848-5307

Emeryville Fire Department - (510) 596-3750 (non-emergency)

Emeryville Police Department - (510) 596-3700 (non-emergency/dispatch)

DTSC Public Participation Specialist: Nathan Schumacher, nschumac@dtsc.ca.gov,
phone toll free at (866) 495-5651

DTSC Project Manager: Nina Bacey, jbacey@dtsc.ca.gov, phone (510) 540-2480

Sherwin-Williams: Larry Mencin, lmencin@sherwin.com, phone (216) 577-1007

Mara Feeney, Public Participation Consultant: mara@marafeeney.com, phone (415) 863-8760

Bay Area Air Quality Management District Complaint Hotline - 1 (800) 334-ODOR
(1-800-334-6367)

1.5 Site Location and Background Information

The Site consists of the Sherwin-Williams property located at 1450 Sherwin Avenue in Emeryville, California, and a portion of the adjacent Novartis property located at 4525–4563 Horton Street (see Figure 1). The Sherwin-Williams property is located on the north side of Sherwin Avenue, between Horton Street and the Union Pacific Railroad (UPRR) tracks.

Sherwin-Williams manufactured paint at the property from the early 1900s until December 2006. Over a two-decade period starting in the 1920s, they also manufactured a lead-arsenate pesticide. The property is now covered by asphalt/concrete paved areas, including the foundations for several buildings that were demolished in 2007, and two remaining buildings (Buildings 1 and 31) along Horton Street.

The Novartis property, located along the western side of Horton Street, is adjacent to the north and east of portions of the Sherwin-Williams property. This Novartis property is also known as the former Rifkin property. The portion of the Novartis property included as part of the Site is currently covered by asphalt and serves as a parking lot. Both properties are currently fenced and patrolled by guard services.

Sherwin-Williams, under the oversight of California environmental regulators, has conducted Site investigation and characterization work at the Site since the late 1980s. Throughout this process, there has been extensive outreach and involvement of the community. Community interest in the Site has been generally high. From mid-1997 until early 2006, the Regional Water Quality Control Board – San Francisco Bay Region (Water Board) was the lead agency overseeing Site activities. In 2006, the California Environmental Protection Agency designated the DTSC as the lead agency providing regulatory oversight for cleanup activities and as the agency coordinating input from the community and other interested agencies including the Water Board, Bay Area Air Quality Management District, City of Emeryville, and County of Alameda.

The numerous technical studies conducted at the Site conclude that arsenic is the primary contaminant found in soil and groundwater above DTSC's Site cleanup goals. Arsenic is found in the highest concentrations in soils in the area north of the existing Building 31 and near the southern property boundary of the Novartis

property. The area is referred to as the “Source Area” or “Raised Cap” area as it is the area of the Site where processes released contaminants to the ground and is now covered by a protective asphalt cover.

Dissolved arsenic is also present in groundwater under the Site. Volatile Organic Compounds (VOCs) and lead have also been detected in soil and groundwater at the Site. These contaminants are of concern because scientific studies indicate these compounds have been shown to cause adverse health effects, both cancer and noncancer. [Attachment 1](#) provides more information on the contaminants identified in soil and groundwater at the Site.

1.6 Development of Cleanup Goals and Proposed Remediation Actions

Under the direction of DTSC, and the Water Board prior to 2006, Sherwin-Williams conducted the following sequential steps in the established process for investigating, characterizing, and remediating a contaminated property:

1.6.1 Remedial Investigation

Soil and groundwater were investigated to determine the extent of contamination across and under the Site, and to identify all of the contaminants present. The analytical and historical operations information collected during the investigation also helped the understanding of how the contaminants got to where they are currently located.

The remedial investigation report was approved by the Water Board in March 2002.

1.6.2 Interim Remedial Measures

Several cleanup actions have already been implemented at the Site. These actions were taken to protect public health and the environment while long-term solutions continued to be developed. Between 1973 and 1994, Sherwin-Williams removed the manufacturing plant and solvent and oil tanks. Soil in the area of the solvent tanks containing VOCs was removed and disposed off-site prior to 1990.

In the early 1990s, the Water Board approved the implementation of several interim cleanup actions that included the installation of:

1. A slurry wall, a subsurface vertical wall primarily composed of clay, to contain the more highly contaminated groundwater.
2. An asphalt cap over the surface of the Site to prevent contact with contaminated soil.
3. A groundwater extraction and treatment system inside the slurry wall to help contain groundwater within the slurry wall.

In 1997, the Water Board oversaw the removal of arsenic impacted soil along the portion of Horton Street adjacent to the Site. In 1999 and 2000, the groundwater extraction and treatment system was expanded to add additional groundwater extraction wells.

Since 2006, DTSC has been overseeing the operation and maintenance of the capped area, the storm water collection system, and the groundwater extraction and treatment system.

1.6.3 Human Health Risk Assessment

A current conditions risk screen was performed in 2002 to document site conditions and confirm that the Site, in its current condition, does not present a risk to human health and the environment. Additionally, concentrations of contaminants, as well as their ability to migrate through soil, water, and/or air, were analyzed with respect to their potential health impacts to exposed humans. These assessments of exposure risks were used during the completion of the human health risk assessment to determine which contaminants posed the highest concern for cleanup and protection of human health and the environment.

The human health risk assessment was approved by the Water Board in December 2005.

1.6.4 Public Participation Plan

The Public Participation Plan, initially prepared in 1997 under the Water Board and reformatted and updated for the Site in June 2007. The Plan provides a summary of the community outreach activities that occurred from the late 1990s through 2006, including the remediation of soils beneath Horton Street in the summer of 1997. This Horton Street soil removal project encountered a variety of problems resulting in complaints from the immediately adjacent community, as well as a loss of trust in the ability of Sherwin-Williams and the regulatory agencies to conduct cleanup work in a manner that would adequately protect the community.

Since 2006, DTSC and Sherwin-Williams have made concerted efforts to understand, anticipate, and respond to community concerns. These efforts have included community meetings, numerous presentations, efforts to use more rail transport for the cleanup in response to community concerns, the development of the Public Health Evaluation of the Remedial Alternative, and this Community Safety Plan.

1.6.5 Feasibility Study

With the understanding of contaminant concentrations and locations, their interaction with soil and groundwater, and their potential impact on exposed humans and the environment, Sherwin-Williams prepared an evaluation of various technologies and procedures to develop a recommended approach to Site cleanup.

Because of the nature of the contaminants and their location, DTSC and Sherwin-Williams recognized that complete removal of the contaminants was not feasible without creating significant disruption and potentially unacceptable exposure risk to the community. The evaluation also determined that the contaminants could not be treated in place to the degree needed to meet state and federal risk-based standards. The preferred remediation approach is to remove contaminated shallow soil above groundwater to eliminate health risks to future occupants, and to remove deeper soils within groundwater containing arsenic source material that continues to degrade the groundwater quality, and then monitor remaining contaminants in groundwater as their concentrations decrease over time.

DTSC evaluated cleanup goals based upon the fate and transport of contaminants and possible future human exposure to the Site after remediation activities were completed. These cleanup goals are summarized below.

Contaminant	Cleanup Goal in Soil Above the Groundwater Level
Volatile Organic Compounds	(mg/kg)
Acetone	70,000.
Benzene	0.015
4-Chloroaniline	310.
Ethylbenzene	7,800.
Tetrachloroethene (PCE)	0.063
Toluene	100.
Xylenes	2,300.
Semivolatile Organic Compounds	
Benzo(a)anthracene	1.1
Benzo(b)fluoranthene	1.1
Benzo(b,k)fluoranthene	1.1
Napthalene	1,300.
Phenanthrene	4,500.
Inorganic Compounds	
Antimony	31.
Arsenic	24.
Barium	5,500.
Cadmium	3.1
Chromium (+3)	120,000.
Chromium (+6)	1,600.
Lead	250.
Selenium	390.
Zinc	23,000.

Removal of soils containing arsenic source materials below the groundwater level is limited by the physical ability to access and remove this soil. The cleanup goals for

each of the contaminants in groundwater are listed below. Both DTSC and Sherwin-Williams acknowledge that while contaminant groundwater concentrations will decrease over time once the contaminated soil is removed, it will take decades before concentrations on Site actually reach these goals.

Contaminant	Cleanup Goal in Groundwater
Volatile Organic Compounds	(mg/L)
Acetone	1.5
Benzene	0.001
2-Butanone (MEK)	4.2
1,2-dichloroethane	0.0005
1,2-dichloropropane	0.005
Ethylbenzene	0.3
Methyl Isobutyl Ketone	0.12
Methyl tert Butyl Ether (MtBE)	0.013
Toluene	0.15
Trichloroethene	0.005
1,2,3-trichloropropane	0.005
1,3,5-trimethylbenzene	0.46
1,2,4-trimethylbenzene	0.14
Vinyl Chloride	0.0005
Xylenes	0.02
Semivolatile Organic Compounds	
Naphthalene	0.017
Inorganic Compounds	
Arsenic (Aquatic Protection)	0.036
Iron	0.3
Manganese	0.05
Zinc	0.081

The preferred remediation action presented in the study includes the following key activities:

- Removal of selected groundwater monitoring wells (those that will not be needed after completion of the remediation activities);
- Extraction and treatment of soil vapors within and underlying the Raised Cap (to minimize releases of vapors and odors when the Raised Cap is removed);
- Removal, handling, and off-site disposal of the Raised Cap (includes both rail and truck transport);

- Installation of shoring system for excavation along Horton Street (to allow for soil excavation of arsenic source material while protecting Horton Street and sidewalk);
- Removal and treatment of groundwater that accumulates within the excavation (to facilitate soil excavation and handling activities);
- Excavation, handling, and off-site disposal of material (includes both rail and truck transport);
- Restoration of historical groundwater flow direction by installing three breaches in the subsurface slurry wall after removal of contaminated soil and replacement with imported fill material;
- Extension of existing slurry wall (to direct a portion of groundwater through the installed slurry wall breaches);
- Backfilling and compaction of imported, specific engineered fill to support restoration of historical groundwater flow;
- Installation of groundwater monitoring wells to monitor the effectiveness of the remediation; and,
- Long-term monitoring of groundwater quality to demonstrate the success of the remedy.

Before approving the Feasibility Study, DTSC required Sherwin-Williams to prepare a Public Health Evaluation of the Remedial Alternative (PHERA). The PHERA demonstrated that the preferred cleanup approach could be implemented without causing adverse health effects, both cancer and non-cancer, in the community from the on-site contaminants.

DTSC approved the PHERA and Feasibility Study in April 2009.

1.6.6 Remedial Action Plan and California Environmental Quality Act

The Remedial Action Plan provides additional details on these key remediation activities. The Remedial Action Plan required preparation of this Community Safety Plan. The Remedial Action Plan illustrated the areas of the Site where these remediation activities will happen. The Remedial Action Plan also included the findings from the PHERA and identified Site-specific calculated thresholds for allowable contaminant levels in dust and vapors that are protective of the community.

DTSC prepared an evaluation, known as an Initial Study, of the planned cleanup activities in order to examine possible environmental effects. The Remedial Action Plan, Initial Study and Mitigated Negative Declaration went through a formal public review from October 28, 2009 through December 18, 2009. DTSC held public meetings in November 2009 and December 2009 to present the plan.

DTSC received numerous comments from the public and addressed all of them prior to approving the Remedial Action Plan in June 2010.

1.6.7 Remedial Design Implementation Plan

The Remedial Design Implementation Plan document provides the engineering design and construction monitoring details for the field activities to be conducted on the Site. This Community Safety Plan is a part of the Remedial Design Implementation Plan, and much of the Community Safety Plan content comes from other sections and attachments within the Remedial Design Implementation Plan.

Section 2

Community Description

The Site is located in a former industrial area that, over the past several decades, has been transformed into a vibrant, mixed use urban community. The 45th Street Artists' Cooperative, located immediately across Horton Street from the Site, is one of the older residential communities in the Site vicinity. It is an artist-owned and managed community containing 56 live-work studios. Because of its close proximity to the Site and past Site cleanup actions, members of the Artists' Coop historically have been very involved in Site activities and, as a result, DTSC has arranged for the Coop to have their own Information Repository of key technical documents pertaining to the Site.

Over the years, other housing and live-work developments have been completed, attracting additional residents and workers to the immediate vicinity of the Site. Figure 2 shows key residential and commercial developments and other community facilities in the Site vicinity. The Horton Street Lofts is a 15-unit condominium development with an active homeowners association, at the corner of Horton and 45th Streets. Emeryville Warehouse Lofts (commonly referred to as the E-lofts), located at 1500 Park Avenue, is 141-unit development with 10 live-work units constructed in 2000. It also has an active homeowners association. In 2007, the construction of Blue Star Corner condominiums, a 20-unit townhouse development, was completed at the corner of Sherwin Avenue and Halleck Street. The mixed commercial-residential development at Bay Street also includes a large number of apartments that face east and therefore view the Site across the railroad tracks. These developments have a mix of older and newer residents with a variety of histories of involvement in and levels of awareness about the Site.

In addition to the growth of residential uses in the Site vicinity, the neighborhood has attracted several major businesses, such as Novartis and Pixar, as well as many new smaller businesses that have added vitality to the community, new buildings, and robust workforces, attracting new restaurants and coffee shops to serve the growing population of the area.

As part of the Park Avenue District of Emeryville, the area has undergone a number of improvements to streets, lighting, landscaping, signage, transportation improvements and other amenities that have made the neighborhood more pedestrian friendly and have enhanced its character as an arts district and employment center. The City of Emeryville created the Park Avenue District Advisory Committee in 2002 to assist in the development and implementation of the Park Avenue District Plan. The Park Avenue Neighborhood Association (PANA) was organized in 2004 to address quality of life issues in the neighborhood through information sharing, community building, and providing input on proposed development activities in the area. Redevelopment plans for the Sherwin-Williams

property had been a major focus of their interest, but the group has been inactive since redevelopment plans were withdrawn.

Key Contacts for interested community organizations, City of Emeryville staff, homeowner associations, and surrounding developments are included in [Attachment 2](#).

Section 3

Protection Thresholds

As part of the cleanup action selection process, DTSC had the PHERA prepared for the project and approved by DTSC in April 2009. The primary objective of the PHERA is to estimate possible risk to people in the community for adverse health effects during implementation of the remediation action. Two types of potential health effects are typically evaluated: cancer and noncancer. Neither of these risk levels for cancer or noncancer is a direct indicator that health effects will or are likely to occur. They are, however, useful to help maintain protection of people in the community from Site contaminants.

More information about the PHERA and its findings is presented in [Attachment 1](#) to this Community Safety Plan.

The PHERA concluded that emission control measures are necessary during implementation activities. Minimum dust control measure efficiencies required to reduce cancer and noncancer risks to target levels were determined to be 96 percent for soil/material at the Site with the highest concentrations of contaminants. More typical dust control measure efficiencies required to reduce cancer and noncancer risks to target levels were determined to be 60 percent for the majority of Site soil/material. Minimum vapor control measure efficiencies required to reduce cancer and noncancer risks to target levels were determined to be 90 percent for organic vapors across the Site.

Proposed dust and vapor control measures, as presented in the Dust and Vapor Control Plan presented with the Remedial Design Implementation Plan, can reduce dust and organic vapor emissions by more than 90 percent. Therefore, the use of emission control measures can and will be used to reduce health risk from project activities to people in the community. Dust and vapor control measures will include: water sprays, surfactants, wetting agents, dust suppressants, and windscreens for dust control; and water sprays, misting systems, wetting agents, and foam covers for vapor control.

The second objective in the PHERA was to develop protection thresholds. Two types of protection thresholds were developed: (1) performance standards, and (2) action levels. Performance standards were developed for concentrations of contaminants in the air at the perimeter of the Site. The performance standards are established as criteria to evaluate the efficiency of the engineering controls used to limit releases of dust, VOCs and odors from the work area. Adherence to performance standards helps to maintain protection of people in the community from Site contaminants. A performance standard was calculated for each contaminant based on Federal and California regulatory enforcement and guidance standards. During implementation activities, samples will be collected on a periodic basis to measure contaminant concentrations in air that could be potentially inhaled for comparison to these

performance standards. These comparisons will be used to demonstrate that safety of people in the community is being maintained from contaminants during proposed implementation activities. Ongoing monitoring of contaminant concentrations in air will allow implementation activities to be adjusted if and as required to confirm that performance standards are met. Performance standards for the contaminants are summarized below.

Determinations of individual contaminant concentrations in collected samples will not be available until after samples are collected and submitted for analytical testing. An alternative approach is required to provide a more rapid assessment of real-time emissions. Action levels were therefore developed by which contaminants can be evaluated immediately, as implementation activities occur. For this purpose, chemical-specific performance standards were converted into action levels based on real-time measurements of breathable dust and total organic vapors above background (upwind) concentrations. Comparison of real-time dust and total organic vapor concentration measurements with these action levels will facilitate real-time decision making regarding the adequacy of emission control measures. As needed, dust and vapor control measures would be modified to maintain emissions below dust and total organic vapor protection thresholds, further discussed in Section 5.

Air Quality Performance Standards

Contaminant	Performance Standard (µg/m³)
Metals	
Arsenic	0.2 (acute) 0.015 (subchronic)
Lead	0.15
Volatile Organic Compounds (VOCs)	
Benzene	0.6
1,2-Dichloroethane	0.03
Ethylbenzene	8.9
2-Butanone (Methyl ethyl ketone)	737.
Tetrachloroethene (PCE)	0.2
Toluene	300.
Trichloroethene (TCE)	0.7
1,2,4-Trimethylbenzene	12.
1,3,5-Trimethylbenzene	12.
Vinyl chloride	0.01
Xylenes	434.

Unlike the other contaminants, arsenic has two performance standards: one for acute, short-term exposure and another for subchronic, longer-term exposure. This is due to the potential for adverse health effects from arsenic to be manifested in shorter exposure periods. The other contaminants do not have this characteristic within the range of their concentrations present at the Site.

CDM will use the action level for breathable dust that will vary depending on the concentrations of arsenic and lead for the soil being handled from different parts of the excavation. The calculated action level for breathable dust varies from 0.6 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for those excavation areas with the highest concentrations (such as excavation in certain portions of the Raised Cap material) to 50 $\mu\text{g}/\text{m}^3$ for those excavation areas with lower concentrations. Whenever real-time dust concentrations are recorded at down-wind monitors that exceed the background (upwind) concentrations by the action level amount, work activities will be immediately curtailed or stopped.

The calculated action level for total organic vapors is 1,505 $\mu\text{g}/\text{m}^3$ and does not vary with the excavation area since vapor emissions could occur whenever soil or groundwater containing volatile organic compounds is exposed to ambient air.

An exceedance of an action level instructs CDM and Envirocon to modify or stop remediation construction activities and increase engineering controls to reduce emissions from the Site - it does not indicate an adverse health impact to the community. Based on these evaluations presented in the PHERA, the remediation action can be implemented in a manner which maintains the safety of people in the community from Site contaminants.

Section 4

Potential for Hazards and Nuisances Associated with Site Remediation Activities

Concerns about potential hazards and nuisances that could be associated with further Site remediation work have been expressed by community members at a variety of outreach meetings conducted in recent years, as well as through a DTSC survey and various other forms of communication, including e-mail and written correspondence and comments submitted on the draft Remedial Action Plan and Mitigated Negative Declaration completed for the project. Issues range from health concerns related to potential exposure from toxins from the Site, to potential impacts on Temescal Creek or San Francisco Bay, to quality of life concerns such as increased noise and traffic. Quality of life concerns are particularly of interest to those residents who both live and work in the immediate vicinity of the Site, and therefore could be exposed to prolonged periods of noise or traffic-related nuisances.

Specific concerns that have been raised include the following:

- Potential for human exposure to contaminants in soil during excavation and materials transport, especially related to airborne dust that could enter homes or workplaces, or to dirt or mud tracked onto streets and/or sidewalks in the neighborhood.
- Potential for human exposure to contaminants in groundwater at the Site, through airborne vapors or transport to the creek and Bay.
- Increased motorized traffic on public streets (material haul trucks, worker vehicles, water trucks/sweepers), resulting in more air pollution, noise, and safety hazards.
- Increased noise generation associated with equipment working on the site.
- Concern about odors associated with excavation of contaminants.
- Increased diesel exhaust from heavy equipment operation and truck traffic.
- Increased vibration due to heavy equipment operations.
- Protection and non-disruption of utilities (water, sewer, electric, natural gas) during the remediation activities.
- Parking, access, and pedestrian circulation impacts.

- Concern about the large size of the project and relatively long duration of the proposed remediation work, which will mean a considerable period of disruption or annoyance to be endured.

The following Sections (5 and 6) describe measures that will be employed on-site and off-site to reduce these hazards and mitigate nuisance impacts during site remediation work to maintain community safety during remediation activities. The paragraphs and figures in the rest of this Section 4 describe the types of activities that will occur during remediation activities and what these activities will look like from the neighboring areas.

4.1 Removal of Existing Groundwater Extraction and Monitoring Wells

A total of 62 existing wells will be removed during the initial site activities. These wells have been used to characterize groundwater quality in the area that is now to be excavated, and they must be removed before excavation begins. Well removal equipment will look similar to prior well installation equipment seen at the Site: a truck-mounted drill rig will be positioned over each existing well, and will pump a cement-clay mixture into the well until it is completely full. Two or three workers will operate the equipment and monitor the work. Most of this activity will occur on the Raised Cap area and the southern portion of the Novartis parking area on the former Rifkin property.

4.2 Installation of Security Fencing

Most all of the Site is already secured with fencing, although additional fencing will be installed to include the southern portion of the Novartis parking area. The fencing will be similar to the existing “cyclone” fencing surrounding the Site. Two or three workers will install the fencing by first placing the fence posts, then rolling out fencing to secure to the posts. Initially, temporary fencing will be installed during the drilling and SVE activities to minimize Novartis parking impacts. Prior to excavation, a more stable (posts installed into the ground) fencing will be installed isolating the removal area. This installation will necessarily cut off the southern parking lot entrance; the parking lot, however, will remain accessible by using the northern vehicle entrance.

4.3 Installation of Temporary Rail Spur

All hazardous waste excavated from the Site will be loaded into rail cars and transported out of the area by rail. To facilitate the safe and efficient loading of rail cars, an additional on-Site rail spur will be installed during the initial Site preparation activities. Pre-constructed panels of track and cross-ties will be placed, somewhat similar to building a toy train set, extending southward from the small rail bridge over Temescal Creek Channel at the north end of the Sherwin-Williams property. The new spur will terminate at the northern most edge of Sherwin-Williams former building 35 foundation.

4.4 Installation of Soil Vapor Extraction Wells and Associated Piping and Vapor Treatment Equipment

At or near the same time the groundwater monitoring wells are removed, drillers will install 44 temporary soil vapor extraction (SVE) wells in the same area of the Raised Cap and Novartis parking area. These wells will extend no more than 7 to 12 feet into the subsurface and will have screens to allow soil vapors to be pulled into the wells and through piping on the surface to a treatment system that will capture the organic vapors. The SVE system will operate for a month prior to removal of the Raised Cap material, unless vapor testing indicates that existing vapors under the Cap have been sufficiently removed in less than a month. The equipment used to install the SVE wells will be similar to the equipment used to remove the groundwater monitoring wells, and depending on the availability of equipment and crew there may be two truck-mounted drill rigs on the Site at one time.

4.5 Installation of Perimeter Air Quality Monitoring Equipment

SCA will install seven air quality monitoring stations around the perimeter of the remediation activity area. These units will measure airborne dust levels and organic vapor levels as a means to verify the effectiveness of on-Site dust and vapor control methods. These monitoring stations will be part solar powered and part electricity powered (from power cord or small gasoline generator, depending on location), and will look like the photo with the small solar panel rising above each air monitoring equipment box.

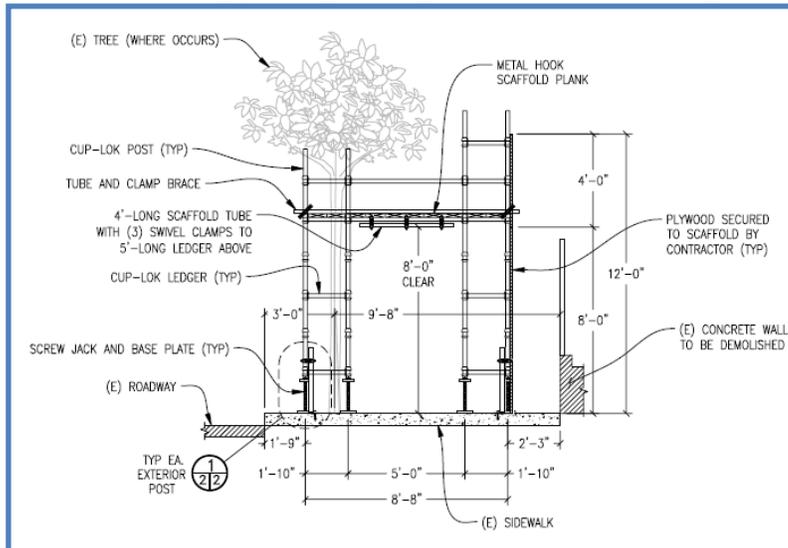


4.6 Use of Diesel Fuel in Heavy Equipment On Site and in Trucks and Locomotives

In California, all diesel fuel transitioned to ultra-low sulfur diesel (ULSD) in 2006. Locomotive and Marine diesel fuels were required to transition to 15 ppm ULSD effective January 1, 2007. All diesel-powered on-Site equipment, road trucks, and locomotives will utilize diesel fuel that meets all California fuel quality standards. In addition, all trucks and on-Site equipment will comply with current Bay Area Air Quality Management District requirements to turn off idling diesel equipment engines within five minutes of inactivity.

4.7 Installation of Sidewalk Canopy and Sound Wall along Horton Street

Envirocon will install a sidewalk canopy north from the existing Sherwin-Williams building along the west side of Horton Street. The canopy will include a 12-foot high plywood wall with a covering 8 feet above the sidewalk level. The purpose of this sidewalk canopy is to protect pedestrians and to help limit the noise levels beyond the



Site boundary. The City of Emeryville will allow closure of the sidewalk during the installation of this canopy and wall. The construction of the wall and canopy will follow the design shown in this sub-section. The wall will be painted to provide visual interest, and an anti-graffiti coating will be applied.

4.8 Removal of Raised Cap and Use of Dust and Vapor Control Procedures

Following the month of soil vapor extraction and completion of the previously described activities, Envirocon will remove the Raised Cap material. Although the view of activities will be blocked by the 12-foot high wall and sidewalk canopy, the equipment used to remove the Raised Cap will include excavators equipped with tools to break up the cap material similar to the equipment shown that was used at 1401 Park Avenue during 2005 foundation removal work at that site.



Dust and vapor control procedures will include spraying a fine mist of water as needed directly on exposed debris, on equipment, and on truck loads moving away from the removal area. Water sprays are typical methods for controlling dust. Envirocon or Kuma personnel will operate the water sprays as



illustrated in this photo.. Other vapor control methods include application of surfactant type materials to seal the surface of the material during excavation and after it has been stockpiled.

4.9 Installation of Shoring Along Horton Street

In order to remove as much of the contaminated soil near Horton Street as possible, shoring must be installed near the sidewalk canopy so that excavation can be conducted safely. Envirocon is working closely with PG&E regarding their natural gas pipeline located along the sidewalk near the Raised Cap and near the planned excavation area. PG&E is planning to abandon the existing gas line by permanently capping the line near 53rd Street and installing a new extension to the existing line near 45th Street. This pipeline work by PG&E will be completed before Envirocon installs the shoring.

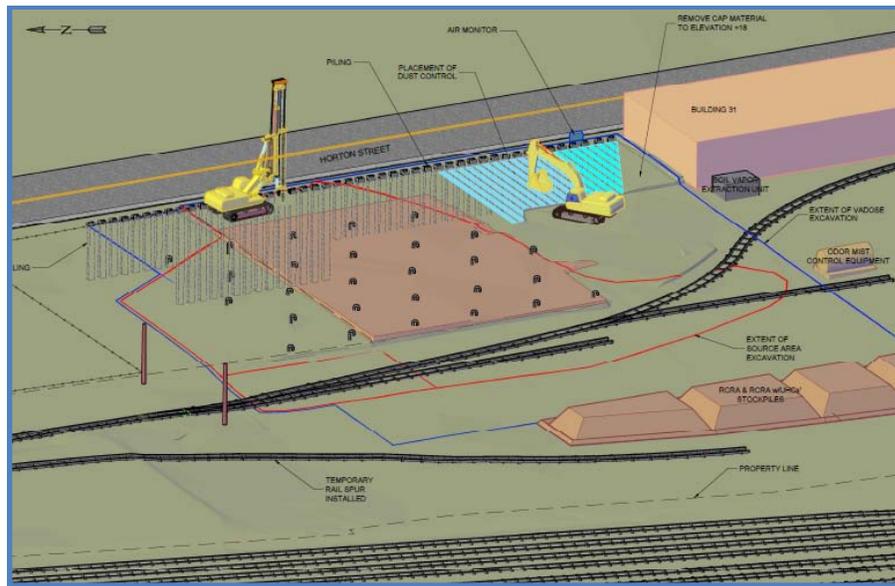


The RAP described a shoring installation approach that called for first drilling bore holes, then installing steel “soldier piles” in the drilled holes and securing the piles with concrete. Between the soldier piles, steel sheets would be driven ahead of excavation to form the shoring wall against soil below Horton Street. CDM presented this approach in the RAP as an alternative to avoid the pounding, or “driving”, piles. For those community residents that remember the Bay Street re-development activities, noisy pile driving equipment pounded beams into the development area for building foundations.

Envirocon evaluated other options for shoring installation, and instead plans to vibrate, or push, the steel piles directly into the soil without a prior drilling step and without a subsequent concrete placement step. This approach allows for complete removal of the steel piles at the end of the work (the RAP indicated that the drilled and concrete encased piles would have to remain in place). Shoring between the piles will be steel plate vibrated (pushed) in place ahead of excavation for the first 8 feet from surface, and then timber lagging placed as needed to depths down to the extent of excavation.



Residents may feel the vibration and hear the noise, but the sensations will be smoother and quieter than a jack hammer. The sidewalk canopy and wall will block the view and much of the noise, however typical equipment used to install the shoring piles and plates will look like the equipment in these photos and in the illustration below. Some pre-drilling of the piles may take place as a noise and vibration mitigation measure if necessary.



4.10 Excavation and Loading of Contaminated Soil

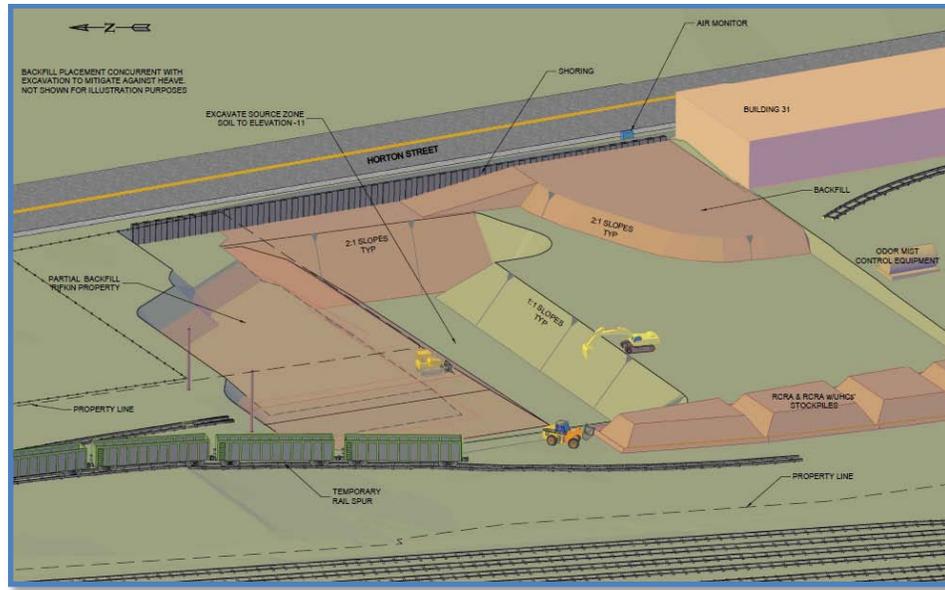
Once the Raised Cap has been removed and shoring installed, soil excavation will proceed behind the sidewalk canopy. Typical equipment will include large excavators that will remove soil and load it into trucks that will move the soil to on-Site stockpiles where the soil will be sampled to determine to which receiving landfill the soil will be



shipped. From the stockpiles the hazardous soil will be loaded into rail cars for transport by rail, and the non-hazardous soil will be loaded into trucks for transport to Bay Area landfill destinations.



During the Source area removal, the excavation will be filled with import material as soil is excavated, to minimize the time the excavation remains open.



4.11 Types of On-Site Worker Personal Protective Equipment

Workers operating the described equipment and monitoring activities may be visible and will be wearing hard hats, boots, and depending on the specific activity, may be dressed in a protective covering to keep contaminated dirt off of clothing. Dust and vapor controls will be utilized to minimize the need for workers to use air purifying respirators, however the site specific worker health and safety plan dictates appropriate use of personal protective equipment.

4.12 Activities at the Completion of Excavation and Backfilling

Along the Site boundary next to the City property north of Halleck Street, additional equipment will be used to install a slurry wall close to the edge of the former Sherwin-Williams warehouse building. The equipment – an excavator with a long-reach arm and bucket - will dig a narrow trench, remove the dirt, mix it with a clay material (bentonite), and place the soil-clay mix back into the trench.

Other activities around the Site will include equipment similar to the types already described, used to dig trenches along the west Site boundary (near the Union Pacific tracks), and to dig a trench just south of the Novartis parking area.



Section 5

Proposed On-Site Safety Measures

This section describes measures regarding security of on-site operations, air quality monitoring, and the dust and vapor control measures.

5.1 Project Representatives

Concerns regarding the safety of on-site cleanup activities can be referred to the following project representatives shown below.

Project Participant	Primary Contact	Contact Info (phone/email)
Remediation Project Team (CDM & Envirocon)	24-hour toll-free phone line	(866) 848-5307
DTSC	Nathan Schumacher	(866) 495-5651
Sherwin-Williams	Larry Mencin	216-577-1007

Sherwin-Williams has established the toll-free 24 hour phone line to accept and direct community questions, concerns, and complaints. The live operator will listen to your question or concern and will forward your call to the appropriate person. This approach should improve the ability to quickly respond to questions by directing the question to the person on Site (or off) best informed to address the question. Responses will be provided as soon as possible, within 24 hours. Calls will be reviewed on a weekly basis to ensure that appropriate response actions have been taken and to evaluate whether or not changes are needed in the way site work is being conducted.

5.2 24-hour Security/Video and Site Access Control

Envirocon is responsible for maintaining security of the specific Site areas associated with the remediation activities that will occur on both the Sherwin-Williams and the Novartis properties (the Site). During remediation activities (weekdays), Envirocon will control access to the Site to prevent unauthorized personnel from entering contaminated work zones, and will assure constant compliance with the Site-Specific Health and Safety Plan. Envirocon reserves the right to deny access to personnel who pose a hazard to operations through serious, willful, or repeated violation of safety requirements; and those personnel who are not otherwise qualified to work on-site.

Sherwin-Williams currently provides 24-hour security staff on-site, which will continue on areas outside the remediation areas throughout the duration of the

remediation activities. The security staff monitor the video feeds from cameras around the Site and have direct contact with City of Emeryville police and fire departments. These security staff routinely patrol the security fencing surrounding the Sherwin-Williams property.

Novartis is responsible for security within the currently fenced parking area on the Novartis property, outside the remediation areas.

5.3 Lighting

The remediation activities will be conducted during daylight hours between 7AM and 6PM daily. Therefore minimal, if any, additional lighting will be required during these daylight work hours.

5.4 Traffic Control

On-site traffic includes rail gondola cars, trucks, cars, heavy equipment, and workers walking between Site work areas. Trucks delivering fill and/or removing non-hazardous soil will enter and exit the Site near the intersection of Sherwin Avenue and Halleck Street. Site worker vehicles will be parked on-site and out of the way of construction activities. The heavy equipment will only be moved with trained and qualified personnel. Authorized workers walking on-site must remain alert to their surroundings and wear the required personal protective equipment (PPE) (i.e., reflective vest, hard hat, safety glasses, and steel toe boots) to make sure that they are visible to equipment operators. The soil removal trucks will navigate the Site in an established pattern in order to efficiently load the soil and exit the Site.

Please see Figure 3 that illustrates the planned on-site truck route around the soil excavation, stockpile, and loading areas.

5.5 Dust and Vapor Control

5.5.1 Vapor Control

Envirocon, and its subcontractor, Kuma Corporation (Kuma), will implement a vapor control methodology that utilizes three levels of actions: 1) reduction of organic vapors before they have the potential to be released; 2) application of a vapor barrier over exposed soil that could otherwise release vapors; and 3) application of water mists near source soil that help knock down vapors once released to the air.

1) Reduction of organic vapors before they have the potential to be released

Prior to removal of the Raised Cap, Envirocon will install a network of vapor extraction wells on the Raised Cap and the surrounding shallow soil excavation area. Envirocon will utilize these vapor extraction wells to reduce stagnant organic vapors presumed to be present below the Raised Cap. The SVE treatment system design is proposed to include up to 44 SVE wells and vapor treatment utilizing C3 Technology (compression-cooling-condensation). The C3 treatment system is capable of removing

approximately 99-percent of vapor-phase VOCs prior to final treatment with activated carbon similar to the way a fish tank filter cleans the water. Moisture collected as vapor condensation will be pumped to an aboveground holding tank for treatment using the existing onsite water treatment system.

Envirocon will operate the soil vapor extraction and treatment system under a permit issued by the Bay Area Air Quality Management District (BAAQMD).

The vapor extraction and treatment system will operate for up to four weeks prior to excavation activities. The total organic vapor concentrations are expected to decrease and stabilize (as monitored at the inlet to the vapor treatment system) to a level that will minimize the release of organic vapors and odors during removal of the Raised Cap. The extracted soil vapor will be field monitored for total organic vapor concentrations. Removal of the Raised Cap will begin after total organic vapor concentrations reach stabilized levels. Portions of the soil vapor extraction system will continue to operate during the removal of the Raised Cap. Removal of the remaining vapor extraction wells will occur as the Raised Cap removal and soil excavation proceeds.

2) Application of a vapor barrier over exposed soil that could otherwise release vapors

For exposed excavation areas and stockpiles that have the potential to release vapors during evenings, weekends, and workdays when work in those particular areas is not occurring, workers will cover the exposed areas using a Kuma-developed product called HydroSeal. Made entirely from natural, biodegradable, food-grade ingredients, HydroSeal will be mixed with water to the desired consistency and effectiveness and spray applied directly to the exposed soil to form a continuous physical barrier that will prevent vapors from being released, and will prevent dust generation even in windy conditions. If not disturbed by equipment, HydroSeal will remain intact and effective for several days. When activities resume the HydroSeal can be excavated and handled and disposed along with the underlying soil. New applications of HydroSeal will be applied as often as needed to re-seal an exposed surface.

3) Application of water mists near source soil that help knock down vapors once released to the air

When excavation begins, Envirocon and Kuma will utilize three separate spray systems in position to spray the excavation work area to target vapors (as well as odors and dust). Each spray system utilizes water with a calculated amount of Odex. Odex is a proprietary biodegradable odor mitigating agent provided by Kuma. Additional detail regarding Odex can be found below in section 5.6. One system will be an array of fixed water misters located along the sidewalk wall at Horton Street, and along the Site fencing placed on the Novartis parking area. The misting line is easily attached, and consists of 0.5 inch tubing with mist nozzles located every four feet. The amount of water mist is controlled by valves at the pump; Kuma will manually adjust the rate of mist generation depending on wind, air temperature,

relative humidity (fog), and the vapor levels measured at the excavation and/or soil handling area. Site workers will reduce soil excavation or handling activities if misting alone does not maintain trigger concentrations at the perimeter air monitoring stations.



The second misting system will be overhead water misters hung from a line extending from the top of the existing Sherwin-Williams building immediately to the south of the Raised Cap area, to a temporary vertical pole located near the Site fence on the Novartis parking area. As with the fixed water misters along the fence and wall, Kuma will manually control the water flow and pressure to these misters to match vapor suppression requirements and weather conditions.

Kuma designed the third misting system and combined it with moveable wind screen fabric that acts to filter and divert air flow. Misting lines and nozzles are added and configured either to block wind away from an area or to direct wind towards another area (with additional misters). Site workers will move this mobile misting wall as often as appropriate in coordination with Site cleanup activities.

5.5.2 Dust Control

The same water misters used for vapor control will also control dust. The 12-foot high wall along the Horton Street sidewalk will also help control dust from leaving the Site.

Envirocon will use the best management practices for dust control including operating excavators, rail cars and truck trailer loading equipment in a way to minimize the distance soil is dropped from the excavator bucket into the container, or onto a stockpile. Wetting agents (surfactants similar to fabric softener) developed and provided by KUMA will be added to dust control water, if needed, to improve the effectiveness of the water sprays.

Loaded trucks and rail cars will be brushed off to remove all soil spilled on the vehicle outside the covered load. This will eliminate uncontrolled dust being released during transport off-Site.

5.5.3 Real-Time Dust and Vapor Measurements

DTSC approved community protection thresholds in the PHERA that provide real-time air monitoring goals for dust and total VOCs during cleanup activities. Real-

time monitoring of organic vapors and dust, measured at the perimeter air quality monitoring stations around the Site, will provide near-immediate feedback to CDM and Envirocon on whether current dust and vapor controls are sufficient to meet the protection thresholds, or if additional control measures (such as more water spray from misters, more HydroSeal on stockpiles and exposed soil, slower excavation and movement of contaminated soil, temporary stoppage of specific activities until winds die down) are required. The real-time measurements will be used to trigger modifications to cleanup activities before protection thresholds are exceeded.

More information about the perimeter air monitoring equipment and procedures is presented in Section 5.10.

5.6 Odor Control

In the same way that on-Site safety is every worker's responsibility, odor detection is also a shared responsibility among all project workers. Kuma personnel will train all workers to distinguish and make judgments on detected odors, based on a general 5-step scale from no detected odor (level 0) to a very strong odor that makes air difficult to breathe (level 5). While very subjective, such brief training aids in the rapid communication between project personnel of odor issues.

KUMA has developed and will use a product called ODEX, an odor neutralizer made entirely of food-grade products. Kuma workers will add ODEX in very small quantities to the water sprays and misters. ODEX has its own fragrance, in order to confirm its presence and effectiveness. The effectiveness of ODEX, however, comes from its ability to attract odorous components to the water droplet and remove it from the air. The most common method of application is to atomize the ODEX and water mixture into tiny droplets approximately 10 microns in diameter (the average human hair is about 100 microns in diameter). At this size, the water droplets have a combined surface area of up to 2.2 acres per cubic foot of air space, resulting in an effective barrier to odors.

Because the organic vapor odors are often detected by on-Site workers before sampling equipment at the perimeter can register detectable concentrations, and before detectable concentrations approach the established community protection thresholds, this odor detection and control process results in an effective real-time trigger for controlling vapor releases from cleanup activities. Kuma staff will dilute the ODEX odor neutralizer into all of the three on-Site water mister systems and their equipment operator will control this system.

5.7 Stormwater Pollution Control

Envirocon has prepared a Stormwater Pollution Prevention Plan for the Site (see RDIP, Appendix H) that identifies Best Management Practices to be employed during all phases of remediation activities to prevent the uncontrolled release of contaminated water to the Temescal Creek channel, to City storm drains, or to other

off-site areas. Envirocon will use Best Management Practices including the following:

- Storm drain inlet protection – to prevent sediment runoff from entering the drains;
- Fiber rolls, or HydroSeal-covered soil berms, placed around excavations and stockpiles to control sediment transport;
- Street sweeping and vacuuming to prevent soil and sediment from leaving the Site work areas;
- Paved roadways on Site, and construction of a paved roadway into the Site from Halleck Street, to minimize tracking of soil from the Site.

Sherwin-Williams has scheduled the majority of this remediation work during the Bay Area's typical summer dry season.

5.8 Waste Stockpile Management

As the digging continues, workers will begin stockpile management activities to control dust and odor, to prevent storm water collecting within the stockpiles, and to prevent storm water or water from wet soil removed from the excavation from leaving the stockpile area.

Workers will place a fiber roll sediment barrier, earthen berm covered with HydroSeal, or asphalt curbing (in select areas) around all stockpiles of soil or other materials to minimize sediment runoff during storm events. Control of the soil stockpiles will continue at all times to eliminate the generation and migration of dust. Using soil binders like HydroSeal will stabilize soil stockpiles, prevent dust generation through wind erosion and inhibit water infiltration and erosion.

Segregating all Site water that has contacted contaminated soil or waste will separate it from the non-contact storm water. Collected contact water from stockpile containment areas, active excavation work areas, and the truck wheel wash station will be treated using the on-Site water treatment system and then discharged to the sanitary sewer. Storm water will be directed away from the contaminated areas and discharged to the City storm water inlets or to the Temescal Creek channel.

5.9 Treatment of Excavation Water

Using pumps and pipes, workers will remove groundwater encountered as the excavation progresses and pump it to a series of large tanks. The tanks will allow the muddy water to settle out suspended solids (mud) and, after passing through filters, workers will discharge the pre-treated water directly to the East Bay Municipal Utility District (EBMUD) sanitary sewer treatment system through an existing sewer connection on the Site near Building 1. Envirocon will obtain the appropriate temporary sewer connection approval from City of Emeryville and discharge permit

from EBMUD. This permit will specify the maximum quantity of water and the maximum time period the pre-treated water can be discharged.

Until this pre-treatment system is in place and operational, and the arrangement with EBMUD confirmed, Envirocon will utilize the current groundwater treatment system with its permitted NPDES treated water discharge to the Temescal Creek Channel. In the event of any upset condition with either the EBMUD discharge or the Temescal Creek Channel discharge, workers may bring temporary water storage tanks on-site and pre-treated water may be trucked off-Site for off-Site final treatment.

5.10 Perimeter Air Monitoring Program

5.10.1 Air Monitoring and Data Analysis

The perimeter air monitoring program serves as a bridge between (1) the protection thresholds calculated in the PHERA for short-term and long-term health effects (both cancer and noncancer) from contaminant exposure, and (2) the on-Site site dust and vapor control measures implemented by Envirocon during Site remediation construction activities. Envirocon will implement the dust and vapor control measures discussed in Section 5.5 of this Community Safety Plan as necessary so that these thresholds are not exceeded. Establishing these thresholds for the Site perimeter, and monitoring air quality at the Site perimeter, provide a conservative (highly protective) basis for evaluating community safety from contaminant exposure.

Two sets of thresholds were developed in the PHERA for the project: (1) those based on real-time measurements of dust and total organic vapors from on-Site monitors, and (2) those based on off-Site laboratory analytical results of air samples collected over a days' time or a portion of a day. The immediate, real-time monitoring will tell CDM and Envirocon if and when airborne organic vapors or dust concentrations are approaching the health-protective numerical thresholds, so that cleanup activities can be quickly curtailed or modified. The real-time monitors can identify specific and total VOC concentrations; the monitors for dust, however, can only quantify the amount of dust, not the actual constituents within the dust. The multi-hour dust samples will be analyzed in an offsite laboratory for arsenic and lead, to correlate the measured dust levels to the measured lead and arsenic levels, enabling Sherwin-Williams and DTSC to confirm whether the presumed highly protective dust thresholds developed in the PHERA (and applied to the perimeter monitoring plan) are appropriate.

Actual concentrations of arsenic and/or lead in soil will vary across the Site based on where historical manufacturing activities occurred, therefore contaminant concentrations in dust detected at the Site perimeter will depend on the remediation activity potentially generating the dust and the location on the Site where soil excavation or handling is occurring. As excavation activities progress away from the Raised Cap area into areas of documented lower concentrations of arsenic and lead in soil, CDM expects that additional dust sampling will confirm a similar reduction of

arsenic and lead in the collected dust. The allowable level of dust, then, may increase, however the health protective thresholds for arsenic and lead will not increase.

Real-time dust and VOC monitoring is critical to guiding engineering controls of remediation activities, and critical to maintaining appropriate air quality down-wind of the Site. The perimeter air monitoring stations, located as shown in Figure 3, will utilize portable photo-ionization detectors (PIDs) as part of the AirLogics SolarLite Perimeter Air Monitoring System to measure total VOC concentrations. During at least the initial four weeks of excavation beginning with the Raised Cap removal activities and then deeper soil excavation, SCA will collect two consecutive 4-hour time-integrated perimeter air samples during dust generating work hours and one 16-hour time-integrated perimeter air samples during non dust generating hours daily for airborne arsenic analysis. Project work will be conducted between 7:00 am and 6:00 pm, although dust-generating activities may not occur during this entire daily time period. As needed on any given day, SCA will collect a third four-hour sample if dust generating work persists beyond eight consecutive hours, and then the non-work hour sample will become a 12-hour time-integrated sample.

SCA will also collect and analyze time-integrated 24-hour samples for both VOC and lead concentrations. The differing sample durations for arsenic and VOC/lead are due to how they can potentially affect health. Adverse health effects from arsenic can be manifested in shorter exposure periods and hence requires more frequent sampling, particularly during the dust generating activities.

CDM/SCA will monitor the contaminant concentrations from air samples and real-time dust and organic vapor measurements on a daily basis and over the course of the project. If data suggest that the concentrations are approaching the thresholds for any specific contaminant, CDM will direct Envirocon to curtail or modify contaminant-releasing activities.

DTSC will oversee all aspects of the dust and air monitoring process through unannounced oversight inspections and regular reports from on-site CDM, SCA and Envirocon personnel.

5.10.2 Air Monitoring Reporting

During the initial four weeks of air sampling activities, SCA will prepare and submit data reports to DTSC at the end of each work day. DTSC will upload the daily reports onto Envirostor for public access. Additionally, CDM will post a printed copy of the report on a notice board by the next work day morning at the perimeter of the Site where Sherwin Avenue and Horton Street intersect. Following the completion of excavation within the highly contaminated areas (expected completion within the first four weeks of excavation work), if there are no exceedances, SCA will prepare weekly and monthly reports and will submit them as soon as they become available to the DTSC for the Envirostor web site and for posting on the site notice board(s).

The daily data reports will present recorded real-time data, in graphical form, for the prior 24-hour period.

The weekly and monthly reports will contain a summary of daily results including the following:

- Summary of monitoring and sampling conducted
- Graphical presentations of perimeter real-time and analytical air monitoring results over time
- Conclusion stating whether acute and subchronic exposure risks are within acceptable limits
- Summary of changes made (if any) to on-Site dust and vapor control measures due to the findings from perimeter air monitoring results
- Summary of potential acute and subchronic exposure risks to community (as detailed in the Perimeter Air Monitoring Plan).

Example layouts for the daily and monthly air monitoring reports are included as [Attachment 3](#). The weekly report would be similar to the monthly report format, with fewer data presented.

5.11 Noise and Vibration Monitoring

5.11.1 Noise

The Emeryville Noise Ordinance, dated August 19, 2003, specifies the requirements for minimizing noise-related impacts during cleanup. Specifically, Envirocon will limit general construction noise to weekdays from 7:00 am to 6:00 pm.

During noise generating cleanup activities (i.e., SVE operation, removal of the Raised Cap, installation of shoring along Horton Street, soil excavation, loading, stockpiling, etc.), Envirocon will conduct perimeter noise monitoring to confirm the effectiveness of noise controls. Noise monitoring will occur whenever and wherever noise from on-site activities may potentially impact the community and also weekly along the project perimeter nearest to the on-Site noise-generating activities. DTSC will oversee all aspects of the noise and vibration monitoring process through unannounced oversight inspections and regular reports from on-site Envirocon personnel.

As appropriate, Envirocon will identify the source(s) of the noise and use additional noise reduction methods and supplies including, but not limited to, those presented below:

- Relocate stationary equipment operations (if feasible) to minimize noise impacts on the community;

- Provide portable enclosures for stationary equipment and particularly noisy areas on the Site;
- Use observers, and/or schedule activities so that equipment backup alarm noise is minimized;
- Install and maintain intake and exhaust mufflers on all equipment, particularly pneumatic impact tools;
- Install acoustically attenuating shields, shrouds, or enclosures on certain noise producing equipment;
- Line or cover hoppers, conveyor transfer points, storage bins and chutes with sound-deadening media;
- Minimize the use of air or gasoline-driven hand tools;
- Maintain all equipment so that all parts of vehicles and loads are secure and do not rattle or bang; and/or
- Use shields, impervious fences, or other physical sound barriers, to inhibit transmission of noise to sensitive receptors.

5.11.2 Vibration

The City of Emeryville has no quantitative ordinance requirements regarding limits on construction-related vibration, therefore the impact standards used for this project are those developed by the Federal Transportation Authority, or FTA. The Federal Transportation Authority (FTA) recommends criteria limits for minor damages to different building types, expressed in units of Peak Particle Velocity (PPV) in inches per second. Building types in the immediate area around the project Site are typically engineered concrete and masonry (considered by FTA as Class II structures) or non-engineered timber and masonry buildings (Class III). The FTA vibration damage criteria established for Class II buildings is 0.3 PPV, and 0.2 for Class III buildings. As Category III structures are more sensitive to vibration, the 0.2 PPV criterion will be used for purposes of a worst-case analysis. The threshold for minimal damage to Category III buildings due to vibration is a PPV of 0.20 inches per second.

CDM expects that the remediation construction equipment that will generate the most vibration is the vibratory pile installer, for constructing the critical shoring wall along the Horton Street side of the Source Area excavation (see Section 4). The typical PPV of a vibratory pile installer is 0.170 inches per second; for purposes of a worst-case analysis, however, the upper range PPV for this type of equipment, 0.734 inches per second, is used to evaluate potential vibration impacts to the community.

The closest residential occupancy is 60 feet away from the limits of pile installation activities, and using the FTA guidelines and a worst-case vibration level of 0.734 in/sec at the source, the resulting vibration level at the residence is below the

threshold of 0.2 in/sec. All other equipment planned for on-site use will generate lower vibration levels or will operate at greater distances from the community.

During periods of peak vibration generating Site activities (such as pushing/vibrating shoring soldier piles and lagging, Raised Cap removal, soil excavation, soil loading into trucks and rail cars, rail car movement, slurry wall installation, interceptor trench installation), Envirocon will record representative vibration measurements for all activities that may produce vibration levels at or above a PPV of 0.12 inches per second at a receiving property. The size of the vibration monitoring device is small enough to easily hold in a hand, and vibration monitoring can and will occur at various locations depending on the location and type of specific remediation activities and the closest members of the neighboring community.

In the event that the measured vibration levels exceed the above mentioned limits, Envirocon will implement additional vibration abatement measures, or temporarily suspend the offending operation until corrective measures can be taken.

DTSC will oversee all aspects of the noise and vibration monitoring process through unannounced oversight inspections and regular reports from on-site CDM and Envirocon personnel.

5.12 Decontamination (Personnel & Equipment)

Decontamination of personnel and equipment is a critical component of Envirocon's Site-Specific Health and Safety Plan (attachment to the Remedial Design Implementation Plan). As with any hazardous waste remediation Site, Envirocon will establish and enforce, and modify as the work progresses, work zones and supporting operations that isolate areas where workers could be exposed to contaminants. The Envirocon Site Safety Officer will establish and supervise all decontamination activities on site. Workers who come into contact with contaminated media will proceed through established decontamination procedures in the "contaminant reduction zone" to clean equipment, tools, and protective clothing, before they exit the work area.

Envirocon will contain all solid and liquid waste generated during decontamination procedures for proper disposal. DTSC will oversee all aspects of the decontamination process through unannounced oversight inspections and regular reports from on-site Envirocon personnel.

In a similar manner, trucks that enter the Site and enter exclusion zones for loadout of contaminated soil will pass through a dry wheel decontamination area and be inspected by workers operating the decon pad before leaving the Site onto Halleck Street. Please see Figure 3 that illustrates the traffic plan, including the location of the truck decontamination area.

DTSC will oversee all aspects of the decontamination process through unannounced oversight inspections and regular reports from on-site CDM and Envirocon personnel.

5.13 Emergency Response Plan

As part of the Envirocon Health and Safety Plan (Section H, Incident and Emergency Procedures), in the event of an emergency that could threaten the safety of on-Site workers, Envirocon will train workers to move to predesignated collection areas away from hazards (attachment to the Remedial Design Implementation Plan). All companies present on-Site will count and confirm the presence of all employees in the collection area. According to Section C.4 of the Safety Plan, personnel working in the exclusion zone (contaminated area) will remain in constant communication or within sight of the project manager, or the designated representative. Two-way radio is the primary method of communication. In an emergency situation, one long air horn signal will be used to indicate an emergency including fire/explosion, and/or to direct personnel to evacuate unless otherwise directed. One short horn blast is used as an attention getter - to stop work and assemble at the contaminant reduction zone (decontamination area). Two short horn blasts indicate that all is clear and the emergency conditions are over.

If the on-Site emergency results in a need for immediate notification to the community, Envirocon will contact the City Fire Department and coordinate in-community actions at the direction of Fire Department personnel. Information regarding the emergency would also be immediately communicated to DTSC, and subsequent community notification would be conducted at the direction of DTSC.

Envirocon will establish direct communications with the City of Emeryville Fire and Police departments prior to mobilizing on Site and at regular intervals throughout the project duration, to inform the departments of the nature of the work to be performed and the various work areas on Site.

Section 6

Proposed Off-Site Safety Measures

6.1 Work Hours

Consistent with City of Emeryville ordinances, work hours will be limited to 7:00 am to 6:00 pm on weekdays. If it is necessary to perform work on weekends or after normal hours DTSC will provide notice to the local community outlining the work hours and the activities to be performed.

6.2 Traffic Control

6.2.1 Halleck Street Approach to Site

As shown on Figure 3, Halleck Street will be the designated truck traffic route for trucks leaving the Site with loads of excavated non-hazardous soil and debris, and for trucks entering the Site with replacement loads of imported fill¹. CDM plans modifications and additions to stop signs along the route so that trucks leaving the Site can minimize extra stops and starts and proceed away from the Site as safely and as smoothly as possible. Trucks approaching the Site northbound on Halleck will stop at the Park Avenue intersection and will wait for a clear signal from the Flagger along Halleck before proceeding across Park Avenue. The Flagger will give priority to community vehicles that access residences along Halleck Street, and will control truck traffic to allow safe travel for residents.

Community traffic traveling westbound on Sherwin Avenue will stop at the Halleck intersection, to minimize encounters with approaching and departing trucks.

Workers will load all contaminated waste destined for hazardous waste landfills into rail gondola cars that will leave the Site on the existing railroad spur track and an installed, temporary track, that connect to the UPRR Emeryville Yard and from there to the UPRR main yard in Oakland. Rail traffic will not interfere with community vehicle traffic.

DTSC will oversee all aspects of the traffic control process through unannounced oversight inspections and regular reports from on-Site CDM and/or Envirocon personnel.

6.2.2 Temporary Closure of Horton Street Sidewalk and Crosswalk

During installation of the shoring system, the City of Emeryville will allow the temporary closure of a portion of the sidewalk on the western side of Horton Street.

¹ Halleck Street is a designated City of Emeryville truck route. All residents of the newly built residential community (Blue Star Corner Condominiums) received full disclosure about the planned remediation work on the nearby Sherwin Williams property.

Sherwin-Williams anticipates that this closure may extend up to one week during installation and another week during removal. As a result, pedestrians cannot use the crosswalk present along this portion of the sidewalk during this period. Further, the temporary closure will include the length of sidewalk from 150 feet north of this crosswalk to 300 feet south. To aid in the safe crossing of pedestrians, and in compliance with the City of Emeryville permit requirements, Envirocon will provide a flagger as a cross-walk guard near the north end of the Novartis (former Rifkin) property. The flagger will be present during project work hours while the sidewalk remains closed. During non-work hours, the nearest locations to this crosswalk where the community can appropriately cross Horton Street are to the north at Horton Street and 53rd Street and to the south at Horton Street and 45th Street. Envirocon will also place temporary signs at the 45th Street intersection with Horton Street to inform both pedestrians and vehicle drivers of the Pedestrian crossing at this 3-way stop intersection.

When the sidewalk is re-opened, Envirocon will install a rigid canopy to shield the community from the work occurring on the Site along the sidewalk. The canopy will not damage the trees located on the sidewalk. The interior of the canopy will be eight feet high and be compliant with City of Emeryville requirements, including all the Americans with Disabilities Act requirements. See Section 4 for a description of the canopy construction.

6.3 Street Sweeping

As part of the overall project dust control and stormwater pollution prevention plans, Envirocon will construct an asphalt paved truck road connecting the Halleck Street access point with the Site. The paved road, combined with the decontamination of trucks leaving the Site, will significantly reduce dirt from the Site on neighborhood streets. Envirocon will utilize street sweeping equipment, on an as-needed basis, whenever visible soil material is carried onto adjacent public streets.

6.4 Truck and Equipment Engine Idling

Consistent with procedures now established at the Port of Oakland and other locations across California and the U.S., Envirocon and CDM will require truck and other diesel-fueled equipment operators to turn off engines within five minutes of idled activity. In addition, Envirocon will implement truck traffic procedures along Halleck Street (see Figure 3) to minimize the time trucks are stopped at intersections. These procedures will also minimize the stopping and resuming of motion that can generate excessive truck engine noise and emissions. There is area designated on the Site to accommodate 8 to 10 trucks. Envirocon and Waste Solutions Group will coordinate loadout plans daily to confirm the next work day's need for truck and/or rail car inventory and timing, in order to avoid too many trucks arriving at the same time.

DTSC will oversee all aspects of the idling control process through unannounced oversight inspections and regular reports from on-Site CDM and Envirocon personnel.

6.5 Emergency Response Plan

Envirocon will establish direct communications with the City of Emeryville Fire and Police departments prior to mobilizing on Site, and will inform the departments of the nature of the work to be performed and the various work areas on-site and on City streets. In the event of a project-related emergency that occurs off-site and on City property/streets, Envirocon or WSG will immediately notify the police and fire departments. Unless other pre-arrangements are made, Envirocon will assume the City fire department will serve as the Incident Commander. Envirocon and CDM will support the neighborhood communication, as directed, using the communications plans established for this remediation project as discussed in the Section 7.

6.6 Utility Protection

Envirocon will continue to work closely with the City of Emeryville, and other utility firms, including, but not limited to East Bay Municipal Utility Department and Pacific Gas & Electric, to identify and protect all aboveground and underground utilities in the vicinity of the Site. Of particular concern are the natural gas lines under Horton Street and under the sidewalk adjacent to the Site. The shoring system plan, as presented as an appendix of the Remedial Design and Implementation Plan, includes design and monitoring to maintain the safety of these utilities.

Section 7

Communications

7.1 Communication of Exceedances

In the case of an emergency incident, local officials and agencies will be notified and appropriate actions will be initiated onsite and in the community (at the direction of City police and/or fire department personnel) if there is an immediate threat to public health. In the event of a non-emergency incident or exceedance of an air emission threshold concentration, CDM/Envirocon will prepare and post within 24 hours a description of the incident, how the incident was managed, and what modifications will be implemented to reduce a repeat of the incident.

7.2 Community Meetings

DTSC plans a series of community meetings to keep the community informed about remediation progress. The first meeting was held on March 24, 2011 to introduce the Community Safety Plan. A second meeting is planned prior to commencement of earth-moving construction activities. In coordination with the City of Emeryville, DTSC plans to have these meetings in the Garden Room at Emeryville's City Hall. Once the active phase of remediation begins, weekly summary reports will be the main method of keeping interested community members informed, as described below.

DTSC plans additional meetings every 4-8 weeks to keep residents informed about remediation progress or problems and provide an opportunity to meet with Site personnel to ask questions or address concerns. Such meetings could be held at City Hall or other convenient venues in the community, should scheduling conflicts arise. In addition, DTSC and Sherwin-Williams will consider requests from specific businesses or groups of neighbors (e.g. Novartis or E-loft residents), City representatives or community organizations to make special presentations to address questions or concerns.

7.3 Notifications

Once remediation work gets underway, DTSC will prepare work notices to describe the progress and future changes of cleanup activity on the Site. DTSC will send these out by e-mail and/or by U.S. mail to the surrounding community. Regular sign postings at the site will be used to communicate what has been going on and what is planned to occur next. DTSC will send e-mail notifications to interested parties periodically to convey perimeter air quality data, cleanup progress reports, and other pertinent information. DTSC will communicate monitoring data as described in Section 7.5.

7.4 Posting and Signage

CDM will post signage along the Site perimeter fencing that clearly identifies the names and telephone numbers of appropriate project and DTSC representatives that can be contacted in the event of questions or concerns raised by the remediation activities. In addition, signs will indicate where important Site information such as monitoring results, can be accessed on-line. Each sign will be approximately 4 feet by 8 feet in size, with lettering intended to be easily readable from 20 feet away.

The following information will be included on each sign:

- Identification of key contract holders and project proponents: Sherwin-Williams; Envirocon; CDM; DTSC.
- Address of project: 1450 Sherwin Ave, 4525-4563 Horton Street
- Start Date: May, 2011
- Anticipated End Date: November , 2011
- Project Contacts:
24-hour toll-free Community Hotline - (866) 848-5307
Oversight Agency - DTSC: Nathan Schumacher, (866) 495-5651 or (916) 255-3650
Owner - The Sherwin-Williams Company: Larry Mencin, 216-577-1007
- Project Information available in early May at
http://www.dtsc.ca.gov/SiteCleanup/Sherwin_Williams_Emerlyville.cfm

To receive weekly project e-mails please contact Nathan Schumacher at nschumac@dtsc.ca.gov.

7.5 Data Reporting

SCA will summarize the perimeter air monitoring results daily for the initial weeks of excavation activity and weekly thereafter. The results will be posted on the notice board at Sherwin Avenue and Horton Street and posted on the Envirostor project Site within two business days. The specific document link on Envirostor will be e-mailed to those in the community that requested e-mail notifications. SCA will develop these reports using a similar structure to the example included with this Community Safety Plan. Please see [Attachment 3](#).

General updates on project progress and amounts of material sent off-Site for disposal will be available in a weekly summary posted at these same locations on Site, on Envirostor, and e-mailed to those requesting such notifications. These general updates will be brief and in bullet format.

7.6 Monthly Status Report

The current Monthly Status Report has, for years, provided summarized project information to the public; this report format has been updated to reflect the current phase of the remediation project and to reflect the new types of information to be presented. Look for the new format starting with the June 2011 report.

7.7 Project “Hot Line” and Complaints Log

It is the entire project team’s goal to conduct the remediation activities safely and without incident or complaint. As with most any plan, however, unanticipated events leading to lack of communication or miscommunication may occur, and community members may wish to register a complaint with project management. All of the project contacts listed on the tear-sheet at the front of this Community Safety Plan, and the same names printed on the signage at the Site, can receive community comments, questions, or complaints and direct them to the appropriate party. In addition, a project “Hotline” has been established to facilitate the ability to receive phone calls 24 hours a day, 7 days a week, to direct inquiries to the right party, to monitor the frequency and type of calls coming in, and to ensure that appropriate follow-up action or communication occurs.

A complaint registry form will be used by any of these parties (individuals or the Hotline service) to log the important call information, to capture the planned action in response to the complaint, and to document when the planned action was completed and notice provided back to the party registering the complaint. Please see a sample of the complaint registry form in [Attachment 4](#). CDM will compile complaint forms, integrate with information provided by the call answering/forwarding service, and prepare a weekly summary of the number, type and frequency of complaints. Nathan Schumacher of DTSC will review the weekly summary information and discuss them with Sherwin-Williams representatives to see if further response actions are needed.

7.8 Project Fact Sheet

A simple flyer is being developed to convey project information to community members (such as those using the nearby Golden Gate Badminton Club) who may have no knowledge of or past involvement in the Site. This fact sheet can be made available to businesses, community facilities, or apartment owners in the area to present basic information to interested parties.

Section 8

For More Information

Key project documents related to the Sherwin-Williams site in Emeryville can be accessed through DTSC's project website:

http://www.dtsc.ca.gov/SiteCleanup/Sherwin_Williams_Emeryville.cfm

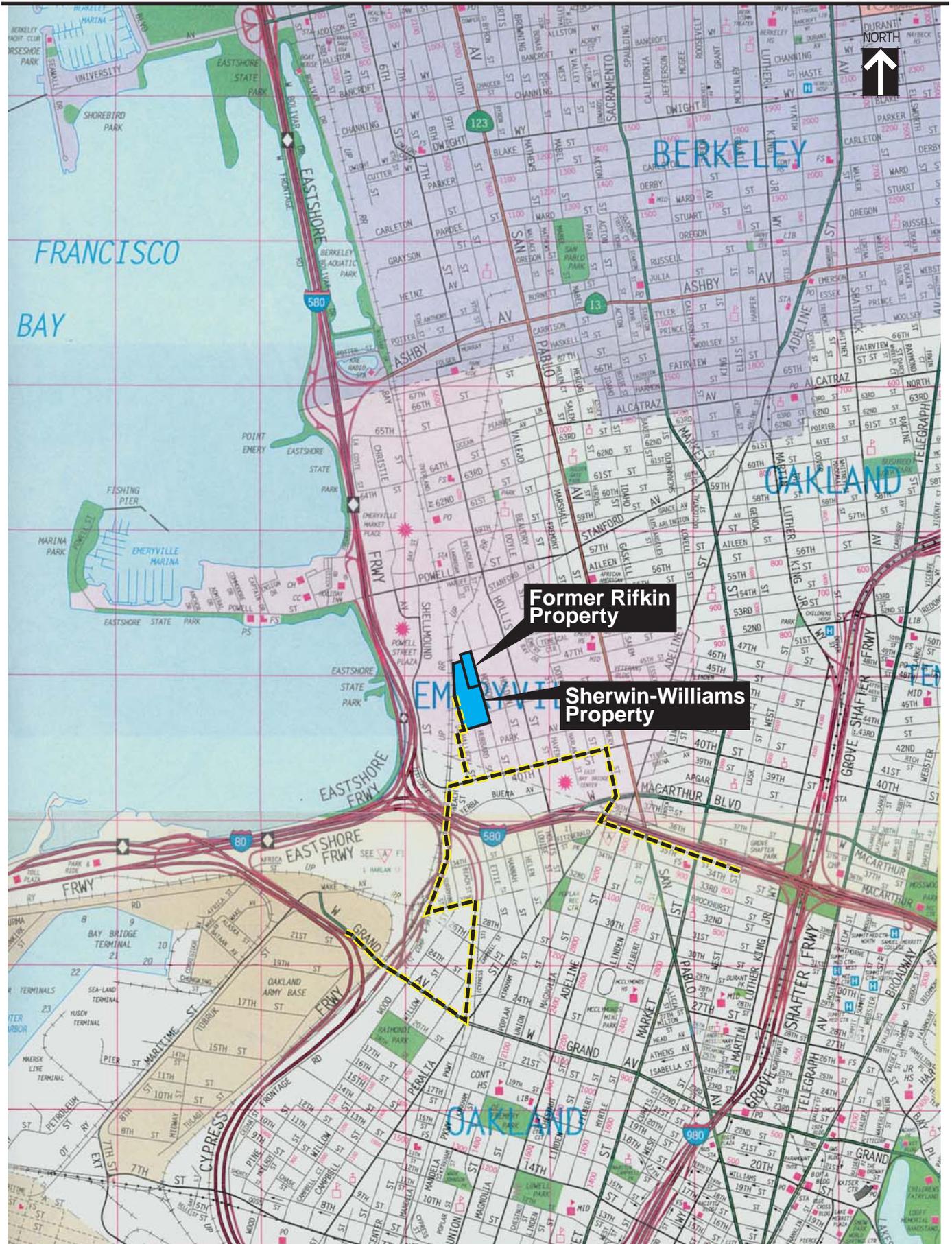
Printed copies of the documents can also be found in the DTSC's File Room located at 700 Heinz Avenue in Berkeley, as well as in two local Information Repositories. Call (510) 540-3800 to make an appointment to use the DTSC File Room and to confirm current hours of operation.

The two local information repositories are located in the 45th Street Artists' Cooperative and in the public library closest to the Site (see information below). The first location is intended primarily for use by Coop residents, but appointments can be made for others interested in viewing the documents.

45th Street Artists' Cooperative Office
11420 45th Street
Emeryville, CA 94608
(510) 655-2880 (call for appointment)

Golden Gate Branch of the Oakland Public Library
5606 San Pablo Avenue
Oakland, CA
(510) 597-5123 (call for current hours)

Figures

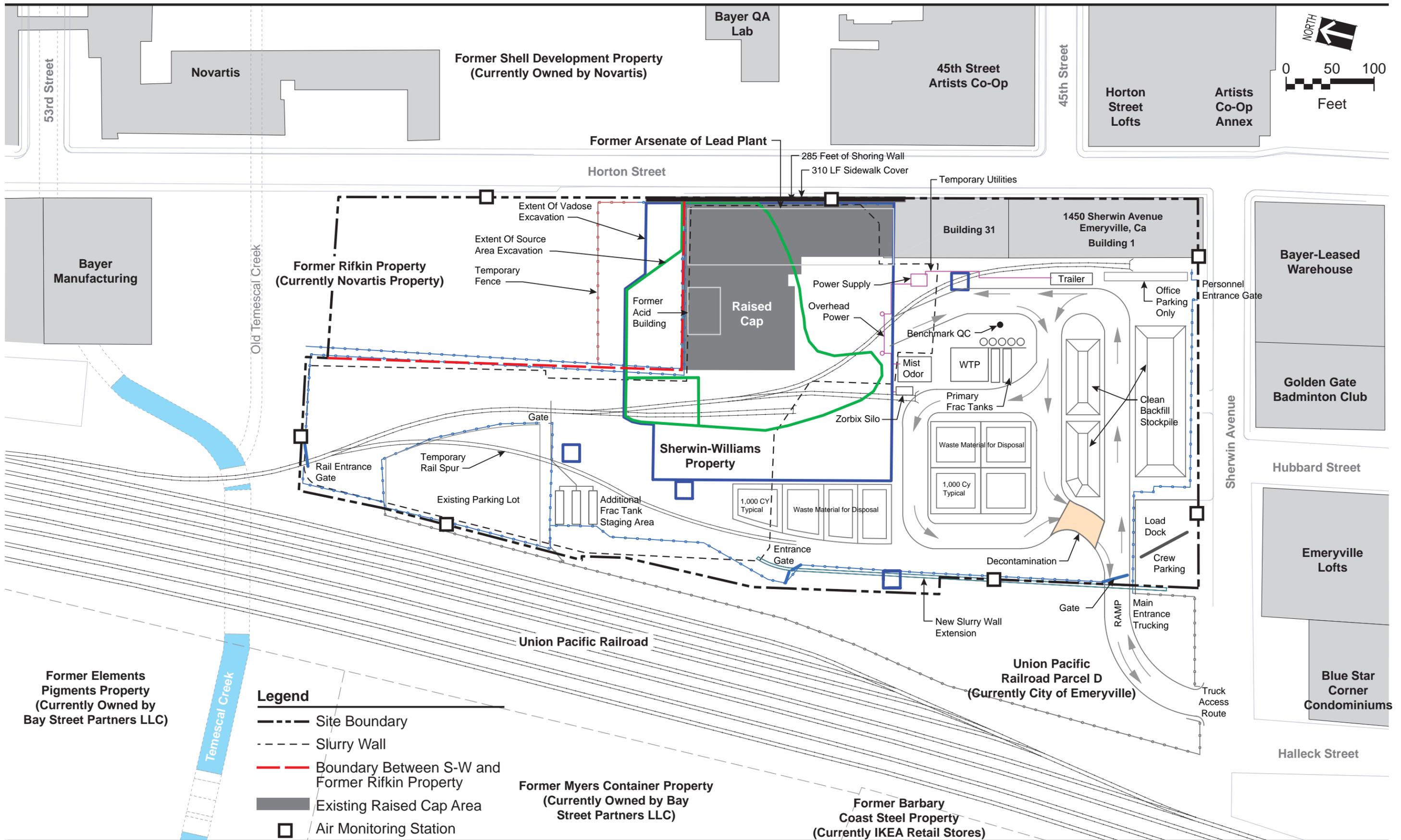


W:\REPORTS\Sherwin-Williams\Emeryville\RDIP 2011\App B CSP\Figures\Figure1_Site Layout Map.ai 03/08/11 JUT

Figure 1

Site Location and Truck Transportation Route Map
 Sherwin-Williams Company - Emeryville, California



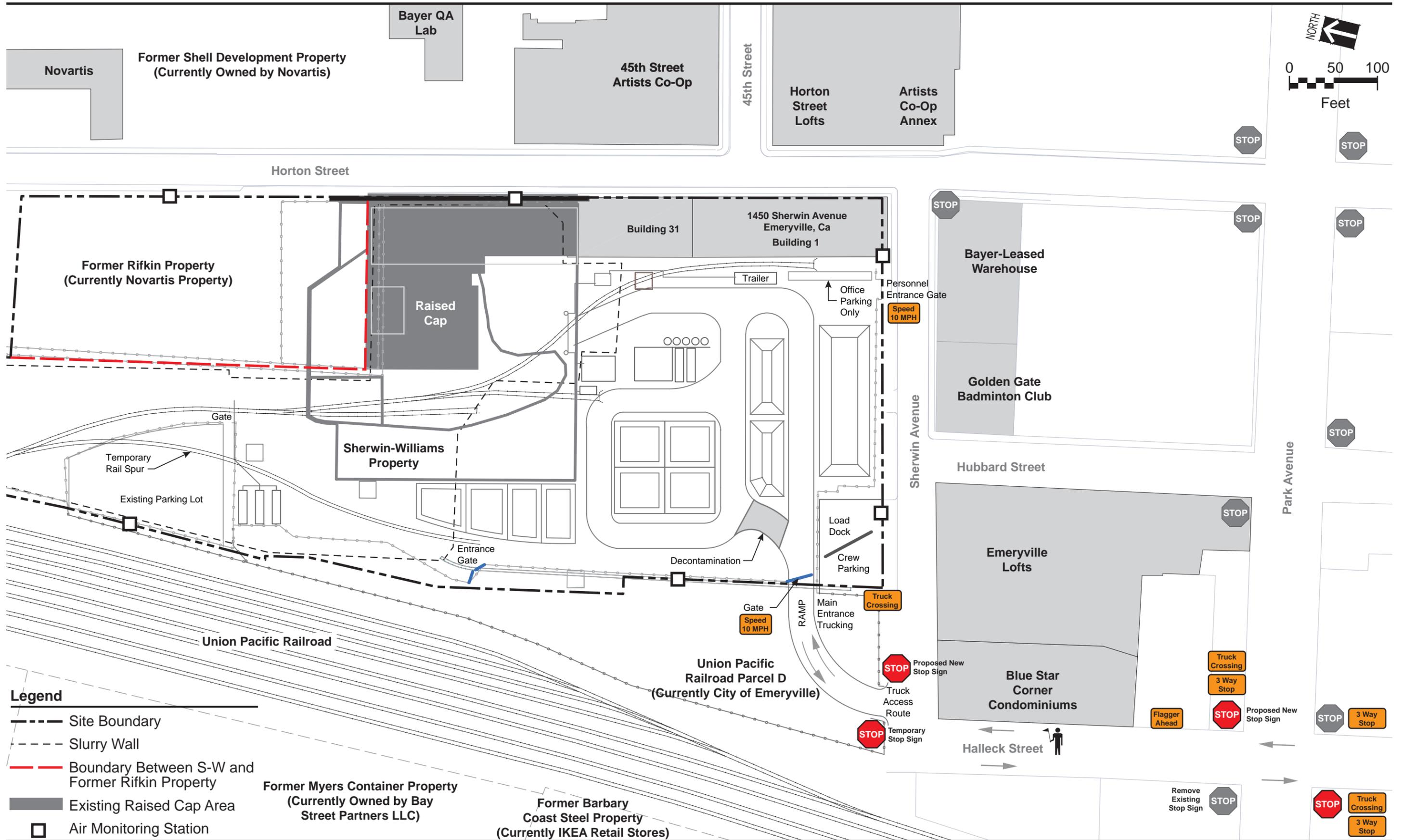


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Figure 2

Site Layout

Sherwin-Williams Company - Emeryville, California



- Legend**
- Site Boundary
 - Slurry Wall
 - Boundary Between S-W and Former Rifkin Property
 - Existing Raised Cap Area
 - Air Monitoring Station

W:\REPORTS\Sherwin-Williams\Emeryville\RDIP 2011\APP B CSPI\Figures\Figure3_Traffic Control Plan.ai 03/08/11 JJT

Figure 3

Traffic Control Plan

Sherwin-Williams Company - Emeryville, California

Attachment 1

Contaminants of Concern at the Site and Actions Proposed to Address Them

The main contaminant of concern (COC) in soil and groundwater underlying the Site is arsenic. Other COCs in shallow soil include:

- VOCs such as acetone, benzene, 4-chloroaniline, ethylbenzene, Tetrachloroethene, toluene, and xylenes
- SVOCs such as benzo(a)anthracene, benzene(b)fluoranthene, benzo(b,k)fluoranthene, isophorone, naphthalene, n-nitrosodiphenylamine, and phenanthrene.
- Metals such as antimony, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, thallium, and zinc.

Other COCs in groundwater include:

- VOCs such as acetone, benzene, chloroform, 1,2-dichloroethane, 1,2-dichloropropane, 2-butanone, ethylbenzene, methyl isobutyl ketone, methyl tert butyl ether, toluene, trichloroethene, 1,2,3-trichloropropane, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, vinyl chloride, and xylenes.
- SVOCs such as naphthalene.
- Metals such as iron, manganese, and zinc.

The highest concentrations of the primary contaminant at the Site, arsenic, in soil above the groundwater level were found in the central portion of the Sherwin-Williams property (within the southern slurry wall area) and in the southern portion of the Novartis property (outside the slurry wall area). Arsenic was also detected at concentrations above its California Department of Public Health (CDPH) drinking water Maximum Contaminant Level (MCL) in groundwater extending from the central portion of the Sherwin-Williams property westward and also to the adjacent Novartis property. The extents of other metal contaminants in the unsaturated soils and shallow groundwater at the Site are within the extents of the arsenic contamination. In addition, a second area of arsenic in groundwater is present under the central portion of the Novartis property, originating from Horton Street (ENTRIX, 2002).

VOCs were detected in soil and groundwater throughout the Site. In general, the highest concentrations of aromatic constituents (primarily ethylbenzene, toluene, and xylenes) and ketones (primarily acetone) were found in unsaturated soil: (1) along the Novartis property/Sherwin-Williams property boundary line (both inside and

outside the slurry wall); and (2) in the north-central portion of the Sherwin-Williams property (inside the slurry wall).

Summary of PHERA Findings

CDM conducted the Public Health Evaluation of the Remedial Alternative (PHERA) in April 2009. The primary objective of the PHERA is to estimate possible risk to people in the community for adverse health effects during implementation of the preferred remedial action. Two types of potential health effects are typically evaluated: cancer and noncancer. Neither of these risk levels for cancer or noncancer is a direct indicator that health effects will or are likely to occur. They are, however, useful for helping to maintain the protection of people in the community from Site contaminants.

Based on concentrations of Contaminants in soil and groundwater samples collected within the planned excavation footprint, an air dispersion computer model was used to estimate unmitigated respirable concentrations of Contaminants that might be present in the air at the nearest downwind Site fence line location. In this case, unmitigated means without consideration of implementing dust and vapor control measures. Possible exposure to people in the community was then evaluated at the nearest downwind Site fence line location rather than at their off-site property locations. The evaluations of potential health effects to people in the community included adult and young children (0 to 6 years old) residents. Young children are the most sensitive population. Exposure levels that are acceptable for young children residents would also be acceptable for other people in the community, including older children and adult residents, adult workers at nearby commercial and industrial buildings, as well as incidental exposure to neighborhood visitors and pedestrians. Potential exposures were evaluated for the expected total duration of 6 months for implementation activities. Dust at the Site was assumed to be generated 8 hours per day, 5 days per week during excavation and loading activities, and organic vapor generated 24 hours per day, 7 days per week while excavated soils are exposed. The evaluations considered long-term exposure over the total duration of implementation activities as well as short-term exposure to address possible acute health effects. The evaluations considered possible cumulative effects from both inhalation of respirable dust containing arsenic and lead, and air containing VOCs.

The PHERA concludes that that theoretical excess lifetime cancer risk and noncancer hazard index to people in the community without implementation of emission control measures could exceed the target levels (i.e., acceptable cancer risk level of 10⁻⁶ and noncancer HI of 1). Thus, emission control measures are necessary during implementation activities. Minimum dust and vapor control measure efficiencies required to reduce cancer and noncancer risks to target levels were determined to be 96 percent for dust and 90 percent for organic vapors for soil/material at the Site with the highest concentrations of contaminants. This material comprises approximately 7,000 cubic yards of the 64,000 cubic yards of soil/material proposed for excavation. For the remaining approximately 57,000 cubic yards of soil/material with lower

contaminant concentration, minimum dust and vapor control measure efficiencies to reduce risks to target levels were determined to be 60 percent for dust and 90 percent for organic vapors.

Proposed dust and vapor control measures can reduce dust and organic vapor emissions by 99.9 percent. Therefore, the use of emission control measures can and will be used to reduce health risk to people in the community to acceptable levels. Dust and vapor control measures will include: water sprays, surfactants, wetting agents, dust suppressants, plastic covers, and windscreens for dust control; and water sprays, wetting agents, foam covers, and plastic covers for vapor control.

The second objective in the PHERA is to develop performance standards. Performance standards are respirable concentrations for Contaminants in air that should not be exceeded. Adherence to performance standards helps to maintain protection of people in the community from exposure to Site contaminants. A performance standard was calculated for each Site contaminant based on Federal and California regulatory enforcement and guidance standards. During implementation activities, samples will be collected on a periodic basis to measure actual respirable contaminant concentrations in air for comparison to these performance standards. These comparisons will be used to demonstrate that people in the community are not being exposed to unacceptable concentrations of Contaminants during proposed implementation activities. That is, concentrations of Contaminants in air monitoring samples are below conservative risk-based performance standards. Ongoing monitoring of respirable contaminant concentrations in air will allow implementation activities to be adjusted if and as required to meet performance standards. Performance standards for the Contaminants are presented in Table 4-3 of the PHERA.

Contaminant concentrations in air cannot be evaluated in “real-time”; that is, concentrations of individual Contaminants in collected samples will not be available until some hours or days after samples are taken and submitted for analytical testing. Some alternative means is thus needed to assess short-term emissions. Action levels were therefore developed by which contaminants can be evaluated immediately, as implementation activities proceed. For this purpose, contaminant-specific performance standards were converted into action levels based on real-time measurements of respirable dust and total organic vapors using hand-held and stationary monitors. Comparison of real-time dust and total organic vapor concentrations with these action levels will facilitate real-time decision making regarding the adequacy of emission control measures. As needed, control measures would be modified to maintain emissions below respirable dust and total organic vapor risk-based action levels.

The respirable dust action level to be utilized at perimeter monitoring locations will vary depending on the concentrations of arsenic and lead for the soil being handled from different parts of the excavation. The calculated action level for respirable dust thus varies from 0.6 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for excavation in those areas with the highest concentrations to 50 $\mu\text{g}/\text{m}^3$ for excavation in those areas with lower concentrations.

The calculated action level for total organic vapors is 1,505 $\mu\text{g}/\text{m}^3$ and does not vary with the excavation activities because off-gassing of organic vapors is not solely a function of soil handling.

Based on these evaluations presented in the PHERA, the preferred remediation action can be implemented in a manner which protects people in the community from unacceptable exposure to contaminants.

Attachment 2

Key Community Contacts

EMERGENCY – 911

Emeryville Fire Department – (510) 596-3750 (non-emergency)

Emeryville Police Department – (510) 596-3700 (non-emergency/dispatch)

City of Emeryville

Patrick O’Keefe
City Manager
133 Park Avenue
Emeryville, CA 94608
(510) 596-4371
pokeefe@emeryville.org

Michael Biddle
City Attorney
133 Park Avenue
Emeryville, CA 94608
(510) 596-4380
city_attorney@ci.emeryville.ca.us

Markus Niebanck
Brownfields Project Coordinator
133 Park Avenue
Emeryville, CA 94608
(510) 596-4356
mniebanck@emeryville.org

Charles Bryant
Planning Director
133 Park Avenue
Emeryville, CA 94608
(510) 596-4361
cbryant@emeryville.org

Maurice Kaufman
Director of Public Works / City Engineer
1333 Park Avenue
Emeryville, CA 94608
(510) 596-4334
mkaufman@ci.emeryville.ca.us

Nora Davis
Mayor
133 Park Avenue
Emeryville, CA 94608
(510) 596-4376 (press 4)

45th Street Artists’ Coop

Randi Parker-Germain
45th Street Artists’ Cooperative & Annex
45thstartistscoop@sbcglobal.net
(510) 655-2880 (M-Th)

Sharon Wilchar
SWilchar1@aol.com
(510) 652-6778 (F-Sun)

Horton Street Lofts

Horton Street Lofts
Emeryville, CA
Thom Chinn, Property Manager
thom@wahl-company.com
415-398-3010

1500 Park Avenue (E-Lofts)

Kim Steinbacher
Emeryville Warehouse Lofts
1500 Park Avenue
Emeryville, CA 94608
(510) 205-3400
steinbacher@gmail.com

Blue Star Corner Condominiums

Randy Eustice
Randy@JohnBeatty.com

Bay Street Apartments

Colin Beverstock
Marketing Representative
5684 Bay Street
Emeryville, CA 94607
(510) 652-6400
baystreetaptsmkt@windsorcommunities.com

Bay Street One (Condominiums)

Andrew Pulizzi
Property Manager
5689 Bay Street
Emeryville, CA 94608
(925) 243-1797
apulizzi@neighborhoodam.com

**Bessler Building Lofts
(4053 Harlan St.)**

Bob Lewis
Association Manager
425 Gregory Lane, #101
Pleasant Hill, CA 94523
(925) 827-2200 ext. 113

Icon Lofts (Horton @ Park)

Annika, Property Manager
1401 Park Avenue
Emeryville, CA 94608
(510) 595-9034

1421 Park Avenue

Elayne Pieri
Property Manager
Fordham Properties Inc.
5835 Doyle Street, Suite 101
Emeryville, CA 94608
(510) 547-7177
elayne@fordhamproperties.com

Bayer HealthCare Plan

Yvonne Sanches
Senior Project Manager
Bayer HealthCare Pharmaceuticals
5650 Hollis Street
Emeryville, CA 94608
(408) 398-7708 (cell)
(510) 597-8777 (office)

Attachment 3

SCA Example Air Monitoring Reports

Attachment 3-1: Daily Report Template

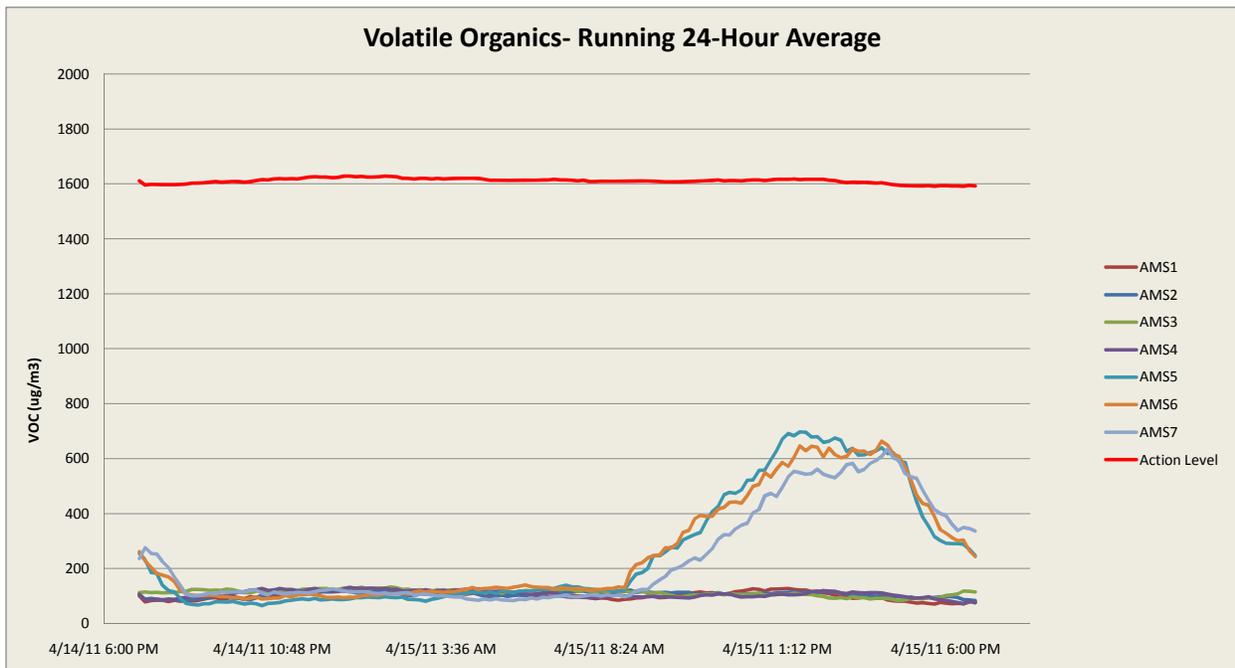
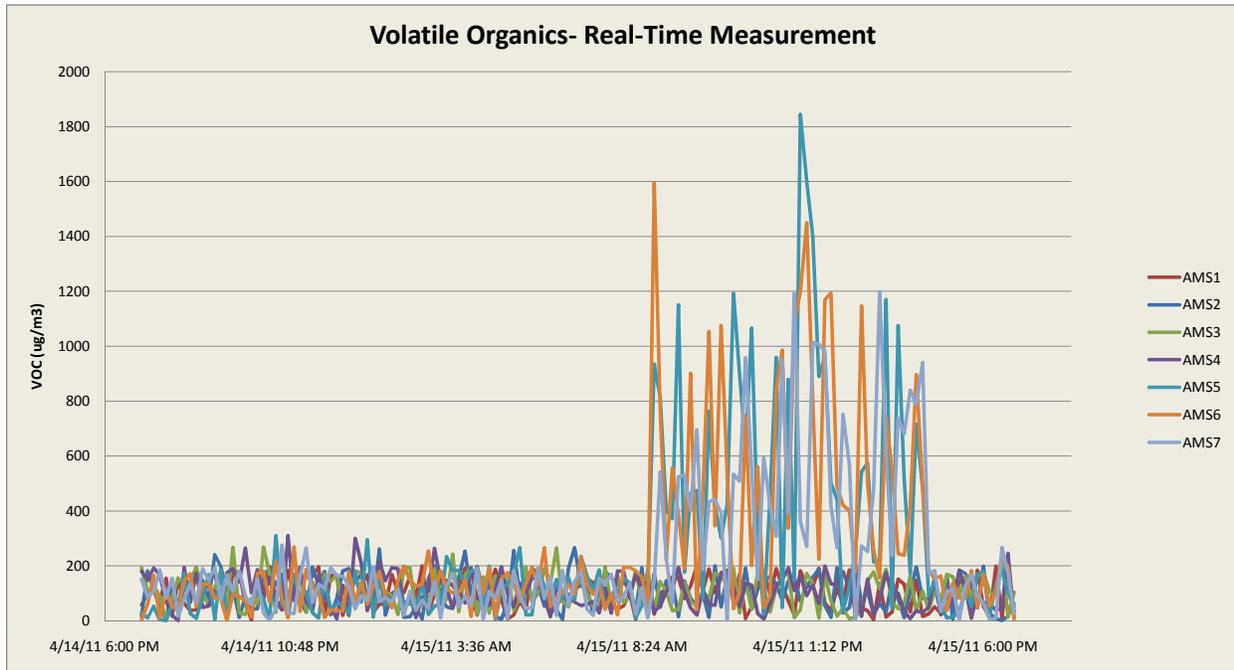
The Example Daily Report Template is found following this page.

Attachment 3-2: Monthly Report Template

The Example Monthly Report Template is found after the Example Daily Report Template.

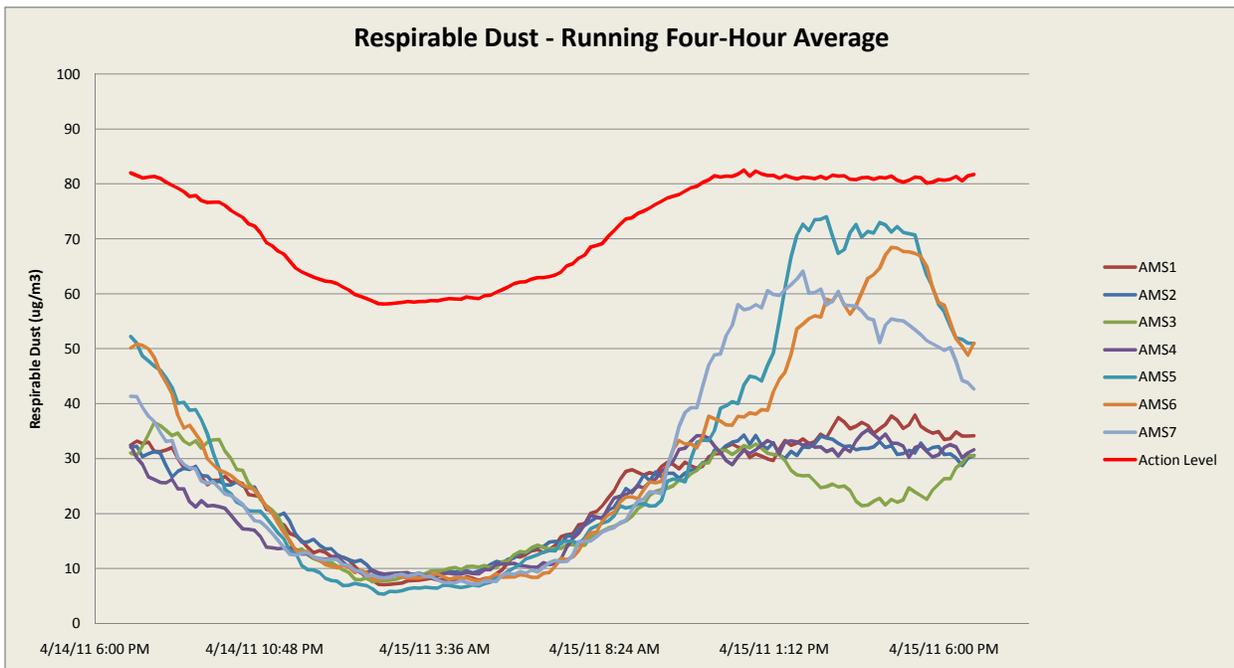
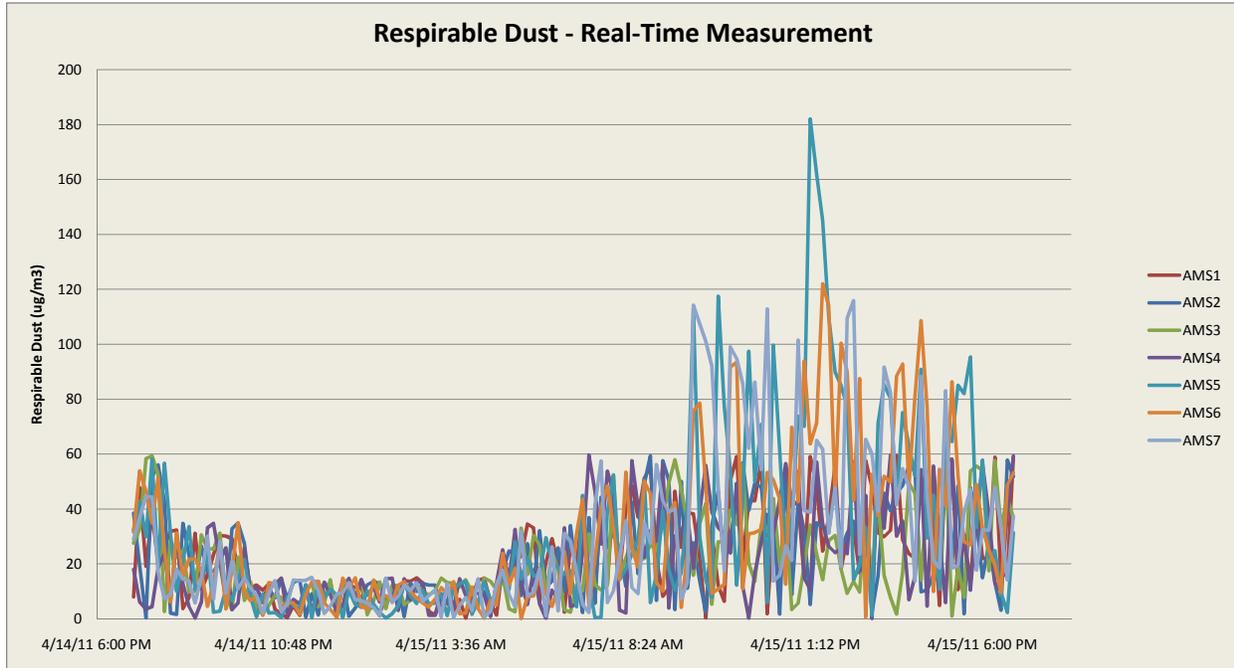


Daily Air Monitoring Results
Sherwin-Williams Emeryville Remediation Project
24-hour Period Ending 7:00 PM April 15, 2011





Daily Air Monitoring Results
Sherwin-Williams Emeryville Remediation Project
24-hour Period Ending 7:00 PM April 15, 2011





Environmental, Inc.

April 11, 2011

David K. Cline
CDM
1000 Pringle Ave., Suite 300
Walnut Creek, CA 94596

**RE: Month End Summary of Perimeter Zone Monitoring Results (March 1-31, 2011)
Former Sherwin-Williams Plant at
Horton & Sherwin, San Francisco, California
SCA Project No.: B10036**

Dear Mr. Cline:

SCA Environmental, Inc. (SCA) performed air monitoring at these perimeter fence line locations during excavation and off-haul of soil activities at the above-referenced site:

- Six (6) air-monitoring stations for real-time monitoring of total VOCs and Respirable Dusts.
- Three (3) air-monitoring stations for integrative samples of arsenic, lead and target VOCs.

The testing equipment, analytical methods, and air monitoring goals are discussed in the Perimeter Air Monitoring Plan. Locations of the stations are identified on Figure 1.

Attached are the following Tables and Charts summarizing the data for March 1-31, 2011:

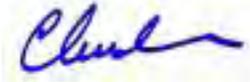
Table	Chart	Results For
1	1a-b	Respirable Arsenic and Lead (ICP/MS)
2	2	Respirable Dust (direct readout instruments from AirLogics)
3	3a-k	Target VOCs (TO15), one chart each for: benzene, MEK, DCE, Ethyl Benzene, 4CE, Toluene, 3CE, 1,2,4-trimethyl benzene; 1,3,5-trimethyl benzene, vinyl chloride and xylenes
4	4	Total VOCs (direct readout instruments from AirLogics)

Note also that:

1.

The laboratory reports have been submitted electronically on an ongoing basis, and are not attached herein.

Sincerely,
SCA Environmental, Inc.



Chuck Siu, PE, CIH, CAC
Project Manager
c: 510-333-0572
csiu@sca-enviro.com

Attachments:

- Table 1 Results for Metals (Arsenic and Lead)
- Table 2 Results for Dusts (Respirable)
- Table 3 Results for specific VOCs
- Table 4 Results for total VOCs
- Chart 1a Arsenic (ICP/MS)
- Chart 1b Lead (ICP/MS)
- Chart 2a Benzene
- Chart 2b MEK
- Chart 3c 1,2-dichloroethane
- Chart 3d Ethyl benzene
- Chart 3e Tetrachloroethene
- Chart 3f Toluene
- Chart 3g Trichloroethene
- Chart 3h 1,2,4-trimethyl benzene
- Chart 3i 1,3,5-trimethyl benzene
- Chart 3j Vinyl chloride
- Chart 3k Xylenes
- Chart 4 Total VOCs
- Figure 1 Site Plan (Showing Air Monitoring Stations)



Table 1
Perimeter Zone Monitoring – Metals (As & Pb) ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Sample ID	Start - End Time	Duration (Min)	As	Lead	Wind Direction (Compass) & Speed	Comments
3/01/11 Tue	Southwest	SW-0301	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/01/11 Tue	South	S-0301	0710 - 0710	1440	<0.01	<0.01		
3/01/11 Tue	North	N-0301	0720 - 0720	1440	<0.01	<0.01		
3/01/11 Tue	West 1							
3/01/11 Tue	West 2							
3/01/11 Tue	Northeast							
3/02/11 Wed	Southwest	SW-0302	0700 - 0700	1440	<0.01	<0.01	SSE 7	
3/02/11 Wed	South	S-0302	0710 - 0710	1440	<0.01	<0.01		
3/02/11 Wed	North	N-0302	0720 - 0720	1440	<0.01	<0.01		
3/02/11 Wed	West 1							
3/02/11 Wed	West 2							
3/02/11 Wed	Northeast							
3/03/11 Thu	Southwest	SW-0303	0700 - 0700	1440	<0.01	<0.01	S5	
3/03/11 Thu	South	S-0303	0710 - 0710	1440	<0.01	<0.01		
3/03/11 Thu	North	N-0303	0720 - 0720	1440	<0.01	<0.01		
3/03/11 Thu	West 1							
3/03/11 Thu	West 2							
3/03/11 Thu	Northeast							
3/04/11 Fri	Southwest	SW-0304	0700 - 0700	1440	<0.01	0.02	SSE 5	
3/04/11 Fri	South	S-0304	0710 - 0710	1440	<0.01	0.05		
3/04/11 Fri	North	N-0304	0720 - 0720	1440	<0.01	0.05		
3/04/11 Fri	West 1							
3/04/11 Fri	West 2							
3/04/11 Fri	Northeast							
3/05/11 Sat	Southwest	SW-0305	0700 - 0700	1440	<0.01	0.02	SSE 5	
3/05/11 Sat	South	S-0305	0710 - 0710	1440	<0.01	0.05		
3/05/11 Sat	North	N-0305	0720 - 0720	1440	<0.01	0.05		
3/05/11 Sat	West 1							
3/05/11 Sat	West 2							
3/05/11 Sat	Northeast							
3/06/11 Sun	Southwest							
3/06/11 Sun	South							
3/06/11 Sun	North							
3/06/11 Sun	West 1							
3/06/11 Sun	West 2							
3/06/11 Sun	Northeast							
3/07/11 Mon	Southwest	SW-0307	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/07/11 Mon	South	S-0307	0710 - 0710	1440	<0.01	<0.01		
3/07/11 Mon	North	N-0307	0720 - 0720	1440	<0.01	<0.01		
3/07/11 Mon	West 1							
3/07/11 Mon	West 2							
3/07/11 Mon	Northeast							
3/08/11 Tue	Southwest	SW-0308	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/08/11 Tue	South	S-0308	0710 - 0710	1440	<0.01	<0.01		
3/08/11 Tue	North	N-0308	0720 - 0720	1440	<0.01	<0.01		
3/08/11 Tue	West 1							
3/08/11 Tue	West 2							
3/08/11 Tue	Northeast							
3/09/11 Wed	Southwest	SW-0309	0700 - 0700	1440	0.007	<0.01	SSE 5	
3/09/11 Wed	South	S-0309	0710 - 0710	1440	<0.01	<0.01		
3/09/11 Wed	North	N-0309	0720 - 0720	1440	<0.01	<0.01		
3/09/11 Wed	West 1							
3/09/11 Wed	West 2							
3/09/11 Wed	Northeast							
3/10/11 Thu	Southwest	SW-0310	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/10/11 Thu	South	S-0310	0710 - 0710	1440	<0.01	<0.01		
3/10/11 Thu	North	N-0310	0720 - 0720	1440	<0.01	<0.01		
3/10/11 Thu	West 1							
3/10/11 Thu	West 2							
3/10/11 Thu	Northeast							
3/11/11 Fri	Southwest	SW-0311	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/11/11 Fri	South	S-0311	0710 - 0710	1440	<0.01	<0.01		
3/11/11 Fri	North	N-0311	0720 - 0720	1440	<0.01	<0.01		
3/11/11 Fri	West 1							
3/11/11 Fri	West 2							
3/11/11 Fri	Northeast							
3/12/11 Sat	Southwest	SW-0312	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/12/11 Sat	South	S-0312	0710 - 0710	1440	<0.01	<0.01		
3/12/11 Sat	North	N-0312	0720 - 0720	1440	<0.01	<0.01		
3/12/11 Sat	West 1							
3/12/11 Sat	West 2							
3/12/11 Sat	Northeast							
3/13/11 Sun	Southwest							
3/13/11 Sun	South							
3/13/11 Sun	North							
3/13/11 Sun	West 1							
3/13/11 Sun	West 2							
3/13/11 Sun	Northeast							
3/14/11 Mon	Southwest	SW-0314	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/14/11 Mon	South	S-0314	0710 - 0710	1440	<0.01	<0.01		
3/14/11 Mon	North	N-0314	0720 - 0720	1440	<0.01	<0.01		

MOCKUP ONLY - DATA ARE NOT REAL



Table 1
Perimeter Zone Monitoring – Metals (As & Pb) ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Sample ID	Start - End Time	Duration (Min)	As	Lead	Wind Direction (Compass) & Speed	Comments
3/14/11 Mon	West 1							
3/14/11 Mon	West 2							
3/14/11 Mon	Northeast							
3/15/11 Tue	Southwest	SW-0315	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/15/11 Tue	South	S-0315	0710 - 0710	1440	<0.01	<0.01		
3/15/11 Tue	North	N-0315	0720 - 0720	1440	<0.01	<0.01		
3/15/11 Tue	West 1							
3/15/11 Tue	West 2							
3/15/11 Tue	Northeast							
3/16/11 Wed	Southwest	SW-0316	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/16/11 Wed	South	S-0316	0710 - 0710	1440	<0.01	<0.01		
3/16/11 Wed	North	N-0316	0720 - 0720	1440	<0.01	<0.01		
3/16/11 Wed	West 1							
3/16/11 Wed	West 2							
3/16/11 Wed	Northeast							
3/17/11 Thu	Southwest	SW-0317	0700 - 0700	1440	<0.01	0.02	SSE 5	
3/17/11 Thu	South	S-0317	0710 - 0710	1440	<0.01	0.04		
3/17/11 Thu	North	N-0317	0720 - 0720	1440	<0.01	0.07		
3/17/11 Thu	West 1							
3/17/11 Thu	West 2							
3/17/11 Thu	Northeast							
3/18/11 Fri	Southwest	SW-0318	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/18/11 Fri	South	S-0318	0710 - 0710	1440	0.013	<0.01		
3/18/11 Fri	North	N-0318	0720 - 0720	1440	<0.01	<0.01		
3/18/11 Fri	West 1							
3/18/11 Fri	West 2							
3/18/11 Fri	Northeast							
3/19/11 Sat	Southwest	SW-0319	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/19/11 Sat	South	S-0319	0710 - 0710	1440	<0.01	<0.01		
3/19/11 Sat	North	N-0319	0720 - 0720	1440	<0.01	<0.01		
3/19/11 Sat	West 1							
3/19/11 Sat	West 2							
3/19/11 Sat	Northeast							
3/20/11 Sun	Southwest							
3/20/11 Sun	South							
3/20/11 Sun	North							
3/20/11 Sun	West 1							
3/20/11 Sun	West 2							
3/20/11 Sun	Northeast							
3/21/11 Mon	Southwest	SW-0321	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/21/11 Mon	South	S-0321	0710 - 0710	1440	<0.01	<0.01		
3/21/11 Mon	North	N-0321	0720 - 0720	1440	<0.01	<0.01		
3/21/11 Mon	West 1							
3/21/11 Mon	West 2							
3/21/11 Mon	Northeast							
3/22/11 Tue	Southwest	SW-0322	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/22/11 Tue	South	S-0322	0710 - 0710	1440	<0.01	<0.01		
3/22/11 Tue	North	N-0322	0720 - 0720	1440	<0.01	<0.01		
3/22/11 Tue	West 1							
3/22/11 Tue	West 2							
3/22/11 Tue	Northeast							
3/23/11 Wed	Southwest	SW-0323	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/23/11 Wed	South	S-0323	0710 - 0710	1440	<0.01	<0.01		
3/23/11 Wed	North	N-0323	0720 - 0720	1440	<0.01	<0.01		
3/23/11 Wed	West 1							
3/23/11 Wed	West 2							
3/23/11 Wed	Northeast							
3/24/11 Thu	Southwest	SW-0324	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/24/11 Thu	South	S-0324	0710 - 0710	1440	<0.01	<0.01		
3/24/11 Thu	North	N-0324	0720 - 0720	1440	<0.01	<0.01		
3/24/11 Thu	West 1							
3/24/11 Thu	West 2							
3/24/11 Thu	Northeast							
3/25/11 Fri	Southwest	SW-0325	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/25/11 Fri	South	S-0325	0710 - 0710	1440	<0.01	<0.01		
3/25/11 Fri	North	N-0325	0720 - 0720	1440	<0.01	<0.01		
3/25/11 Fri	West 1							
3/25/11 Fri	West 2							
3/25/11 Fri	Northeast							
3/26/11 Sat	Southwest	SW-0326	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/26/11 Sat	South	S-0326	0710 - 0710	1440	<0.01	<0.01		
3/26/11 Sat	North	N-0326	0720 - 0720	1440	<0.01	<0.01		
3/26/11 Sat	West 1							
3/26/11 Sat	West 2							
3/26/11 Sat	Northeast							
3/27/11 Sun	Southwest							
3/27/11 Sun	South							
3/27/11 Sun	North							
3/27/11 Sun	West 1							
3/27/11 Sun	West 2							
3/27/11 Sun	Northeast							

MOCKUP ONLY - DATA ARE NOT REAL



Table 1
Perimeter Zone Monitoring – Metals (As & Pb) ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Sample ID	Start - End Time	Duration (Min)	As	Lead	Wind Direction (Compass) & Speed	Comments
3/28/11 Mon	Southwest	SW-0328	0700 - 0700	1440	0.007	<0.01	SSE 5	
3/28/11 Mon	South	S-0328	0710 - 0710	1440	<0.01	<0.01		
3/28/11 Mon	North	N-0328	0720 - 0720	1440	<0.01	<0.01		
3/28/11 Mon	West 1							
3/28/11 Mon	West 2							
3/28/11 Mon	Northeast							
3/29/11 Tue	Southwest	SW-0329	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/29/11 Tue	South	S-0329	0710 - 0710	1440	<0.01	<0.01		
3/29/11 Tue	North	N-0329	0720 - 0720	1440	<0.01	<0.01		
3/29/11 Tue	West 1							
3/29/11 Tue	West 2							
3/29/11 Tue	Northeast							
3/30/11 Wed	Southwest	SW-0330	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/30/11 Wed	South	S-0330	0710 - 0710	1440	<0.01	<0.01		
3/30/11 Wed	North	N-0330	0720 - 0720	1440	<0.01	<0.01		
3/30/11 Wed	West 1							
3/30/11 Wed	West 2							
3/30/11 Wed	Northeast							
3/31/11 Thu	Southwest	SW-0331	0700 - 0700	1440	<0.01	<0.01	SSE 5	
3/31/11 Thu	South	S-0331	0710 - 0710	1440	<0.01	<0.01		
3/31/11 Thu	North	N-0331	0720 - 0720	1440	<0.01	<0.01		
3/31/11 Thu	West 1							
3/31/11 Thu	West 2							
3/31/11 Thu	Northeast							

- Notes: (1) Sampling flow rates are 10 liters per minute
(2) Lab analysis performed by McCampbell Analytical in Pittsburg, CA. (Calif DHS ELAP accreditation #:1644)
(3) Samples collected on 37-mm 2-micrometer PTFE preceded by 10-micron impactors
(4) Samples analyzed in accordance with EPA SW3050B/6020A (ICP-MS).
(5) "<" result = below detection limit for the sample.
(6) $\mu\text{g}/\text{m}^3$ = microgram/cubic meter; Min = minutes;

MOCKUP ONLY - DATA ARE NOT REAL

Table 2
Perimeter Zone Monitoring – Real Time Respirable Dust ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Start - End Time	Duration (Min)	4 HR AVG Minimum	4 HR AVG Maximum	4 HR AVG Average	Wind Direction (Compass) & Speed	Comments
3/01/11 Tue	Southwest	0700-0700	1440	54	78	65	SSE 5	
3/01/11 Tue	South	0700-0700	1440	25	48	34		
3/01/11 Tue	North	0700-0700	1440	31	64	45		
3/01/11 Tue	West 1	0700-0700	1440	32	59	44		
3/01/11 Tue	West 2	0700-0700	1440	28	64	49		
3/01/11 Tue	Northeast	0700-0700	1440	26	68	50		
3/02/11 Wed	Southwest	0700-0700	1440	4	86	59	SSE 7	
3/02/11 Wed	South	0700-0700	1440	18	5	29		
3/02/11 Wed	North	0700-0700	1440	17	72	35		
3/02/11 Wed	West 1	0700-0700	1440	2	61	36		
3/02/11 Wed	West 2	0700-0700	1440	21	73	38		
3/02/11 Wed	Northeast	0700-0700	1440	18	78	41		
3/03/11 Thu	Southwest	0700-0700	1440	39	96	61	S5	
3/03/11 Thu	South	0700-0700	1440	14	53	30		
3/03/11 Thu	North	0700-0700	1440	15	69	36		
3/03/11 Thu	West 1	0700-0700	1440	19	59	38		
3/03/11 Thu	West 2	0700-0700	1440	17	68	42		
3/03/11 Thu	Northeast	0700-0700	1440	17	64	40		
3/04/11 Fri	Southwest	0700-0700	1440	84	100	92	SSE 5	
3/04/11 Fri	South	0700-0700	1440	42	77	51		
3/04/11 Fri	North	0700-0700	1440	58	93	70		
3/04/11 Fri	West 1	0700-0700	1440	57	84	66		
3/04/11 Fri	West 2	0700-0700	1440	61	80	75		
3/04/11 Fri	Northeast	0700-0700	1440	69	110	82		
3/05/11 Sat	Southwest	0700-0700	1440	83	128	98	SSE 5	
3/05/11 Sat	South	0700-0700	1440	42	100	55		
3/05/11 Sat	North	0700-0700	1440	57	105	75		
3/05/11 Sat	West 1	0700-0700	1440	56	99	71		
3/05/11 Sat	West 2	0700-0700	1440	63	110	78		
3/05/11 Sat	Northeast	0700-0700	1440	76	124	99		
3/06/11 Sun	Southwest	0700-0700	1440	9	29	17	0	
3/06/11 Sun	South	0700-0700	1440	12	38	19		
3/06/11 Sun	North	0700-0700	1440	7	18	11		
3/06/11 Sun	West 1	0700-0700	1440	12	16	14		
3/06/11 Sun	West 2	0700-0700	1440	1	27	14		
3/06/11 Sun	Northeast	0700-0700	1440	11	14	13		
3/07/11 Mon	Southwest	0700-0700	1440	38	63	49	SSE 5	
3/07/11 Mon	South	0700-0700	1440	34	64	46		
3/07/11 Mon	North	0700-0700	1440	47	0	54		
3/07/11 Mon	West 1	0700-0700	1440	45	68	53		
3/07/11 Mon	West 2	0700-0700	1440	49	68	56		
3/07/11 Mon	Northeast	0700-0700	1440	3	7	6		
3/08/11 Tue	Southwest	0700-0700	1440	31	84	5	SSE 5	
3/08/11 Tue	South	0700-0700	1440	32	62	45		
3/08/11 Tue	North	0700-0700	1440	35	0	51		
3/08/11 Tue	West 1	0700-0700	1440	37	67	5		
3/08/11 Tue	West 2	0700-0700	1440	46	88	64		
3/08/11 Tue	Northeast	0700-0700	1440					
3/09/11 Wed	Southwest	0700-0700	1440	44	78	60	SSE 5	
3/09/11 Wed	South	0700-0700	1440	41	75	56		
3/09/11 Wed	North	0700-0700	1440	49	88	71		
3/09/11 Wed	West 1	0700-0700	1440	54	87	70		
3/09/11 Wed	West 2	0700-0700	1440	67	92	80		
3/09/11 Wed	Northeast	0700-0700	1440					
3/10/11 Thu	Southwest	0700-0700	1440	8	68	18	SSE 5	
3/10/11 Thu	South	0700-0700	1440	14	52	24		
3/10/11 Thu	North	0700-0700	1440	9	39	18		
3/10/11 Thu	West 1	0700-0700	1440	14	37	25		
3/10/11 Thu	West 2	0700-0700	1440	14	72	29		
3/10/11 Thu	Northeast	0700-0700	1440	14	43	27		
3/11/11 Fri	Southwest	0700-0700	1440	43	0	7	SSE 5	
3/11/11 Fri	South	0700-0700	1440	33	62	45		
3/11/11 Fri	North	0700-0700	1440	24	38	68		
3/11/11 Fri	West 1	0700-0700	1440	48	0	61		
3/11/11 Fri	West 2	0700-0700	1440	32	100	80		
3/11/11 Fri	Northeast	0700-0700	1440	20	167	68		
3/12/11 Sat	Southwest	0700-0700	1440	21	116	45	SSE 5	
3/12/11 Sat	South	0700-0700	1440	13	47	30		
3/12/11 Sat	North	0700-0700	1440	13	64	30		

Table 2
Perimeter Zone Monitoring – Real Time Respirable Dust ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Start - End Time	Duration (Min)	4 HR AVG Minimum	4 HR AVG Maximum	4 HR AVG Average	Wind Direction (Compass) & Speed	Comments
3/12/11 Sat	West 1	0700-0700	1440	21	66	40		
3/12/11 Sat	West 2	0700-0700	1440	23	81	46		
3/12/11 Sat	Northeast	0700-0700	1440	23	150	59		
3/13/11 Sun	Southwest	0700-0700	1440	8	118	18	0	
3/13/11 Sun	South	0700-0700	1440	3	37	10		
3/13/11 Sun	North	0700-0700	1440	5	56	19		
3/13/11 Sun	West 1	0700-0700	1440	6	37	13		
3/13/11 Sun	West 2	0700-0700	1440	5	160	14		
3/13/11 Sun	Northeast	0700-0700	1440	6	41	16		
3/14/11 Mon	Southwest	0700-0700	1440	12	73	23	SSE 5	
3/14/11 Mon	South	0700-0700	1440	5	36	9		
3/14/11 Mon	North	0700-0700	1440	4	65	13		
3/14/11 Mon	West 1	0700-0700	1440	3	39	10		
3/14/11 Mon	West 2	0700-0700	1440	3	61	13		
3/14/11 Mon	Northeast	0700-0700	1440	5	43	12		
3/15/11 Tue	Southwest	0700-0700	1440	79	126	94	SSE 5	
3/15/11 Tue	South	0700-0700	1440	5	93	67		
3/15/11 Tue	North	0700-0700	1440	4	110	55		
3/15/11 Tue	West 1	0700-0700	1440	69	120	9		
3/15/11 Tue	West 2	0700-0700	1440	83	165	109		
3/15/11 Tue	Northeast	0700-0700	1440	75	161	109		
3/16/11 Wed	Southwest	0700-0700	1440	5	223	81	SSE 5	
3/16/11 Wed	South	0700-0700	1440	42	164	64		
3/16/11 Wed	North	0700-0700	1440	32	142	46		
3/16/11 Wed	West 1	0700-0700	1440	62	226	78		
3/16/11 Wed	West 2	0700-0700	1440	31	226	106		
3/16/11 Wed	Northeast	0700-0700	1440	28	263	104		
3/17/11 Thu	Southwest	0700-0700	1440	21	147	76	SSE 5	
3/17/11 Thu	South	0700-0700	1440	7	269	57		
3/17/11 Thu	North	0700-0700	1440	11	103	45		
3/17/11 Thu	West 1	0700-0700	1440	19	129	75		
3/17/11 Thu	West 2	0700-0700	1440	28	163	96		
3/17/11 Thu	Northeast	0700-0700	1440	33	155	94		
3/18/11 Fri	Southwest	0700-0700	1440	43	129	61	SSE 5	
3/18/11 Fri	South	0700-0700	1440	33	83	45		
3/18/11 Fri	North	0700-0700	1440	51	89	63		
3/18/11 Fri	West 1	0700-0700	1440	51	80	59		
3/18/11 Fri	West 2	0700-0700	1440	47	145	78		
3/18/11 Fri	Northeast	0700-0700	1440	56	116	75		
3/19/11 Sat	Southwest	0700-0700	1440	43	129	61	SSE 5	
3/19/11 Sat	South	0700-0700	1440	33	83	45		
3/19/11 Sat	North	0700-0700	1440	51	89	66		
3/19/11 Sat	West 1	0700-0700	1440	52	80	62		
3/19/11 Sat	West 2	0700-0700	1440	47	145	77		
3/19/11 Sat	Northeast	0700-0700	1440	56	116	74		
3/20/11 Sun	Southwest	0700-0700	1440	37	316	98	0	
3/20/11 Sun	South	0700-0700	1440	29	99	62		
3/20/11 Sun	North	0700-0700	1440	43	104	88		
3/20/11 Sun	West 1	0700-0700	1440	44	97	82		
3/20/11 Sun	West 2	0700-0700	1440	54	191	98		
3/20/11 Sun	Northeast	0700-0700	1440	53	128	100		
3/21/11 Mon	Southwest	0700-0700	1440	2	109	33	SSE 5	
3/21/11 Mon	South	0700-0700	1440	6	70	14		
3/21/11 Mon	North	0700-0700	1440	12	43	24		
3/21/11 Mon	West 1	0700-0700	1440	17	46	27		
3/21/11 Mon	West 2	0700-0700	1440	19	200	35		
3/21/11 Mon	Northeast	0700-0700	1440	21	48	31		
3/22/11 Tue	Southwest	0700-0700	1440	43	129	61	SSE 5	
3/22/11 Tue	South	0700-0700	1440	33	83	45		
3/22/11 Tue	North	0700-0700	1440	51	89	63		
3/22/11 Tue	West 1	0700-0700	1440	51	80	59		
3/22/11 Tue	West 2	0700-0700	1440	47	145	78		
3/22/11 Tue	Northeast	0700-0700	1440	56	116	75		
3/23/11 Wed	Southwest	0700-0700	1440	43	129	61	SSE 5	
3/23/11 Wed	South	0700-0700	1440	33	83	45		
3/23/11 Wed	North	0700-0700	1440	51	89	66		
3/23/11 Wed	West 1	0700-0700	1440	52	80	62		
3/23/11 Wed	West 2	0700-0700	1440	47	145	77		
3/23/11 Wed	Northeast	0700-0700	1440	56	116	74		

Table 2
Perimeter Zone Monitoring – Real Time Respirable Dust ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Start - End Time	Duration (Min)	4 HR AVG Minimum	4 HR AVG Maximum	4 HR AVG Average	Wind Direction (Compass) & Speed	Comments
3/24/11 Thu	Southwest	0700-0700	1440	37	316	98	SSE 5	
3/24/11 Thu	South	0700-0700	1440	29	99	62		
3/24/11 Thu	North	0700-0700	1440	43	104	88		
3/24/11 Thu	West 1	0700-0700	1440	44	97	82		
3/24/11 Thu	West 2	0700-0700	1440	54	191	98		
3/24/11 Thu	Northeast	0700-0700	1440	53	128	100		
3/25/11 Fri	Southwest	0700-0700	1440	2	109	33	SSE 5	
3/25/11 Fri	South	0700-0700	1440	6	70	14		
3/25/11 Fri	North	0700-0700	1440	12	43	24		
3/25/11 Fri	West 1	0700-0700	1440	17	46	27		
3/25/11 Fri	West 2	0700-0700	1440	19	200	35		
3/25/11 Fri	Northeast	0700-0700	1440	21	48	31		
3/26/11 Sat	Southwest	0700-0700	1440	43	129	61	SSE 5	
3/26/11 Sat	South	0700-0700	1440	33	83	45		
3/26/11 Sat	North	0700-0700	1440	51	89	63		
3/26/11 Sat	West 1	0700-0700	1440	51	80	59		
3/26/11 Sat	West 2	0700-0700	1440	47	145	78		
3/26/11 Sat	Northeast	0700-0700	1440	56	116	75		
3/27/11 Sun	Southwest	0700-0700	1440	43	129	61	0	
3/27/11 Sun	South	0700-0700	1440	33	83	45		
3/27/11 Sun	North	0700-0700	1440	51	89	66		
3/27/11 Sun	West 1	0700-0700	1440	52	80	62		
3/27/11 Sun	West 2	0700-0700	1440	47	145	77		
3/27/11 Sun	Northeast	0700-0700	1440	56	116	74		
3/28/11 Mon	Southwest	0700-0700	1440	37	316	98	SSE 5	
3/28/11 Mon	South	0700-0700	1440	29	99	62		
3/28/11 Mon	North	0700-0700	1440	43	104	88		
3/28/11 Mon	West 1	0700-0700	1440	44	97	82		
3/28/11 Mon	West 2	0700-0700	1440	54	191	98		
3/28/11 Mon	Northeast	0700-0700	1440	53	128	100		
3/29/11 Tue	Southwest	0700-0700	1440	2	109	33	SSE 5	
3/29/11 Tue	South	0700-0700	1440	6	70	14		
3/29/11 Tue	North	0700-0700	1440	12	43	24		
3/29/11 Tue	West 1	0700-0700	1440	17	46	27		
3/29/11 Tue	West 2	0700-0700	1440	19	200	35		
3/29/11 Tue	Northeast	0700-0700	1440	21	48	31		
3/30/11 Wed	Southwest	0700-0700	1440	37	316	98	SSE 5	
3/30/11 Wed	South	0700-0700	1440	29	99	62		
3/30/11 Wed	North	0700-0700	1440	43	104	88		
3/30/11 Wed	West 1	0700-0700	1440	44	97	82		
3/30/11 Wed	West 2	0700-0700	1440	54	191	98		
3/30/11 Wed	Northeast	0700-0700	1440	53	128	100		
3/31/11 Thu	Southwest	0700-0700	1440	2	109	33	SSE 5	
3/31/11 Thu	South	0700-0700	1440	6	70	14		
3/31/11 Thu	North	0700-0700	1440	12	43	24		
3/31/11 Thu	West 1	0700-0700	1440	17	46	27		
3/31/11 Thu	West 2	0700-0700	1440	19	200	35		
3/31/11 Thu	Northeast	0700-0700	1440	21	48	31		

Notes:



Table 3
Perimeter Zone Monitoring – VOC Levels (µg/m³)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Sample ID	Start - End Time	Duration (Min)	benzene	MEK	DCE	Ethyl Benzene	ACE	Toluene	3CE	124 TMB	135 TMB	VC	Xylenes
3/01/11 Tue	Southwest	SW-0301V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/01/11 Tue	South	S-0301V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/01/11 Tue	North	N-0301V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/01/11 Tue	West 1														
3/01/11 Tue	West 2														
3/01/11 Tue	Northeast														
3/02/11 Wed	Southwest	SW-0302V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/02/11 Wed	South	S-0302V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	0.05	<430
3/02/11 Wed	North	N-0302V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/02/11 Wed	West 1														
3/02/11 Wed	West 2														
3/02/11 Wed	Northeast														
3/03/11 Thu	Southwest	SW-0303V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/03/11 Thu	South	S-0303V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/03/11 Thu	North	N-0303V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/03/11 Thu	West 1														
3/03/11 Thu	West 2														
3/03/11 Thu	Northeast														
3/04/11 Fri	Southwest	SW-0304V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/04/11 Fri	South	S-0304V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/04/11 Fri	North	N-0304V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/04/11 Fri	West 1														
3/04/11 Fri	West 2														
3/04/11 Fri	Northeast														
3/05/11 Sat	Southwest	SW-0305V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/05/11 Sat	South	S-0305V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/05/11 Sat	North	N-0305V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/05/11 Sat	West 1														
3/05/11 Sat	West 2														
3/05/11 Sat	Northeast														
3/06/11 Sun	Southwest														
3/06/11 Sun	South														
3/06/11 Sun	North														
3/06/11 Sun	West 1														
3/06/11 Sun	West 2														
3/06/11 Sun	Northeast														
3/07/11 Mon	Southwest	SW-0307V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/07/11 Mon	South	S-0307V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/07/11 Mon	North	N-0307V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/07/11 Mon	West 1														
3/07/11 Mon	West 2														
3/07/11 Mon	Northeast														
3/08/11 Tue	Southwest	SW-0308V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/08/11 Tue	South	S-0308V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/08/11 Tue	North	N-0308V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/08/11 Tue	West 1														
3/08/11 Tue	West 2														
3/08/11 Tue	Northeast														
3/09/11 Wed	Southwest	SW-0309V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/09/11 Wed	South	S-0309V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/09/11 Wed	North	N-0309V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/09/11 Wed	West 1														
3/09/11 Wed	West 2														
3/09/11 Wed	Northeast														
3/10/11 Thu	Southwest	SW-0310V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/10/11 Thu	South	S-0310V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/10/11 Thu	North	N-0310V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/10/11 Thu	West 1														
3/10/11 Thu	West 2														
3/10/11 Thu	Northeast														
3/11/11 Fri	Southwest	SW-0311V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/11/11 Fri	South	S-0311V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/11/11 Fri	North	N-0311V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/11/11 Fri	West 1														
3/11/11 Fri	West 2														
3/11/11 Fri	Northeast														
3/12/11 Sat	Southwest	SW-0312V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/12/11 Sat	South	S-0312V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/12/11 Sat	North	N-0312V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/12/11 Sat	West 1														
3/12/11 Sat	West 2														
3/12/11 Sat	Northeast														
3/13/11 Sun	Southwest														
3/13/11 Sun	South														
3/13/11 Sun	North														
3/13/11 Sun	West 1														
3/13/11 Sun	West 2														
3/13/11 Sun	Northeast														
3/14/11 Mon	Southwest	SW-0314V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/14/11 Mon	South	S-0314V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/14/11 Mon	North	N-0314V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/14/11 Mon	West 1														
3/14/11 Mon	West 2														
3/14/11 Mon	Northeast														
3/15/11 Tue	Southwest	SW-0315V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/15/11 Tue	South	S-0315V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430

MOCKUP ONLY - DATA ARE NOT REAL



Table 3
Perimeter Zone Monitoring – VOC Levels (µg/m³)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Sample ID	Start - End Time	Duration (Min)	benzene	MEK	DCE	Ethyl Benzene	ACE	Toluene	ACE	124 TMB	135 TMB	VC	Xylenes
3/15/11 Tue	North	N-0315V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/15/11 Tue	West 1														
3/15/11 Tue	West 2														
3/15/11 Tue	Northeast														
3/16/11 Wed	Southwest	SW-0316V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/16/11 Wed	South	S-0316V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/16/11 Wed	North	N-0316V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/16/11 Wed	West 1														
3/16/11 Wed	West 2														
3/16/11 Wed	Northeast														
3/17/11 Thu	Southwest	SW-0317V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/17/11 Thu	South	S-0317V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/17/11 Thu	North	N-0317V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/17/11 Thu	West 1														
3/17/11 Thu	West 2														
3/17/11 Thu	Northeast														
3/18/11 Fri	Southwest	SW-0318V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/18/11 Fri	South	S-0318V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/18/11 Fri	North	N-0318V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/18/11 Fri	West 1														
3/18/11 Fri	West 2														
3/18/11 Fri	Northeast														
3/19/11 Sat	Southwest	SW-0319V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/19/11 Sat	South	S-0319V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/19/11 Sat	North	N-0319V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/19/11 Sat	West 1														
3/19/11 Sat	West 2														
3/19/11 Sat	Northeast														
3/20/11 Sun	Southwest														
3/20/11 Sun	South														
3/20/11 Sun	North														
3/20/11 Sun	West 1														
3/20/11 Sun	West 2														
3/20/11 Sun	Northeast														
3/21/11 Mon	Southwest	SW-0321V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/21/11 Mon	South	S-0321V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/21/11 Mon	North	N-0321V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/21/11 Mon	West 1														
3/21/11 Mon	West 2														
3/21/11 Mon	Northeast														
3/22/11 Tue	Southwest	SW-0322V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/22/11 Tue	South	S-0322V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/22/11 Tue	North	N-0322V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/22/11 Tue	West 1														
3/22/11 Tue	West 2														
3/22/11 Tue	Northeast														
3/23/11 Wed	Southwest	SW-0323V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/23/11 Wed	South	S-0323V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/23/11 Wed	North	N-0323V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/23/11 Wed	West 1														
3/23/11 Wed	West 2														
3/23/11 Wed	Northeast														
3/24/11 Thu	Southwest	SW-0324V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/24/11 Thu	South	S-0324V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/24/11 Thu	North	N-0324V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/24/11 Thu	West 1														
3/24/11 Thu	West 2														
3/24/11 Thu	Northeast														
3/25/11 Fri	Southwest	SW-0325V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/25/11 Fri	South	S-0325V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/25/11 Fri	North	N-0325V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/25/11 Fri	West 1														
3/25/11 Fri	West 2														
3/25/11 Fri	Northeast														
3/26/11 Sat	Southwest	SW-0326V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/26/11 Sat	South	S-0326V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/26/11 Sat	North	N-0326V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/26/11 Sat	West 1														
3/26/11 Sat	West 2														
3/26/11 Sat	Northeast														
3/27/11 Sun	Southwest														
3/27/11 Sun	South														
3/27/11 Sun	North														
3/27/11 Sun	West 1														
3/27/11 Sun	West 2														
3/27/11 Sun	Northeast														
3/28/11 Mon	Southwest	SW-0328V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/28/11 Mon	South	S-0328V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/28/11 Mon	North	N-0328V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/28/11 Mon	West 1														
3/28/11 Mon	West 2														
3/28/11 Mon	Northeast														
3/29/11 Tue	Southwest	SW-0329V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/29/11 Tue	South	S-0329V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/29/11 Tue	North	N-0329V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/29/11 Tue	West 1														<430
3/29/11 Tue	West 2														<430

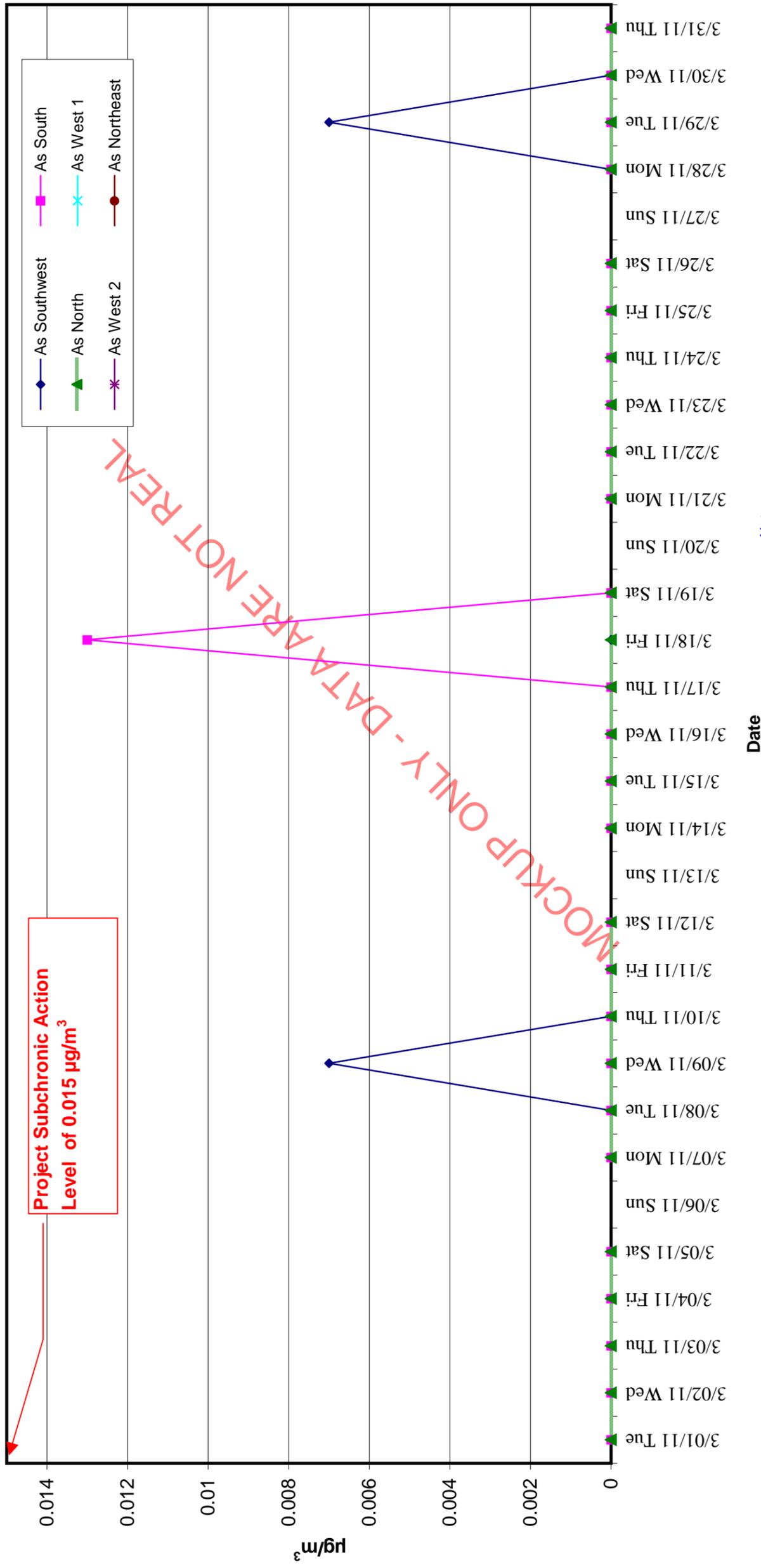
Table 3
Perimeter Zone Monitoring – VOC Levels (µg/m³)
Sherwin-Williams @ Horton & Sherwin, Emeryville, CA

Date	Station	Sample ID	Start - End Time	Duration (Min)	benzene	MEK	DCE	Ethyl Benzene	4CE	Toluene	3CE	124 TMB	135 TMB	VC	Xylenes
3/29/11 Tue	Northeast														
3/30/11 Wed	Southwest	SW-0330V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	
3/30/11 Wed	South	S-0330V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/30/11 Wed	North	N-0330V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/30/11 Wed	West 1														<430
3/30/11 Wed	West 2														
3/30/11 Wed	Northeast														
3/31/11 Thu	Southwest	SW-0331V	0700 - 0700	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/31/11 Thu	South	S-0331V	0710 - 0710	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/31/11 Thu	North	N-0331V	0720 - 0720	1440	0.5	<600	0.04	<0.1	<0.2	<290	<0.55	<12	<12	<0.01	<430
3/31/11 Thu	West 1														
3/31/11 Thu	West 2														
3/31/11 Thu	Northeast														

(1) summa Canisters equipped with 24-hr flow controllers
 (2) Analyzed by McCampbell Analytical in Pittsburg, CA. (Calif ELAP acc #:1644)
 (3) TO15 analysis
 (4) "<" result = below detection limit;
 (5) Min = minutes;
 (6) µg/m³ = microgram/cubic meter
 (7) VOC = Volatile Organic Compounds;
 (8) NA = not available; no sampling conducted this day

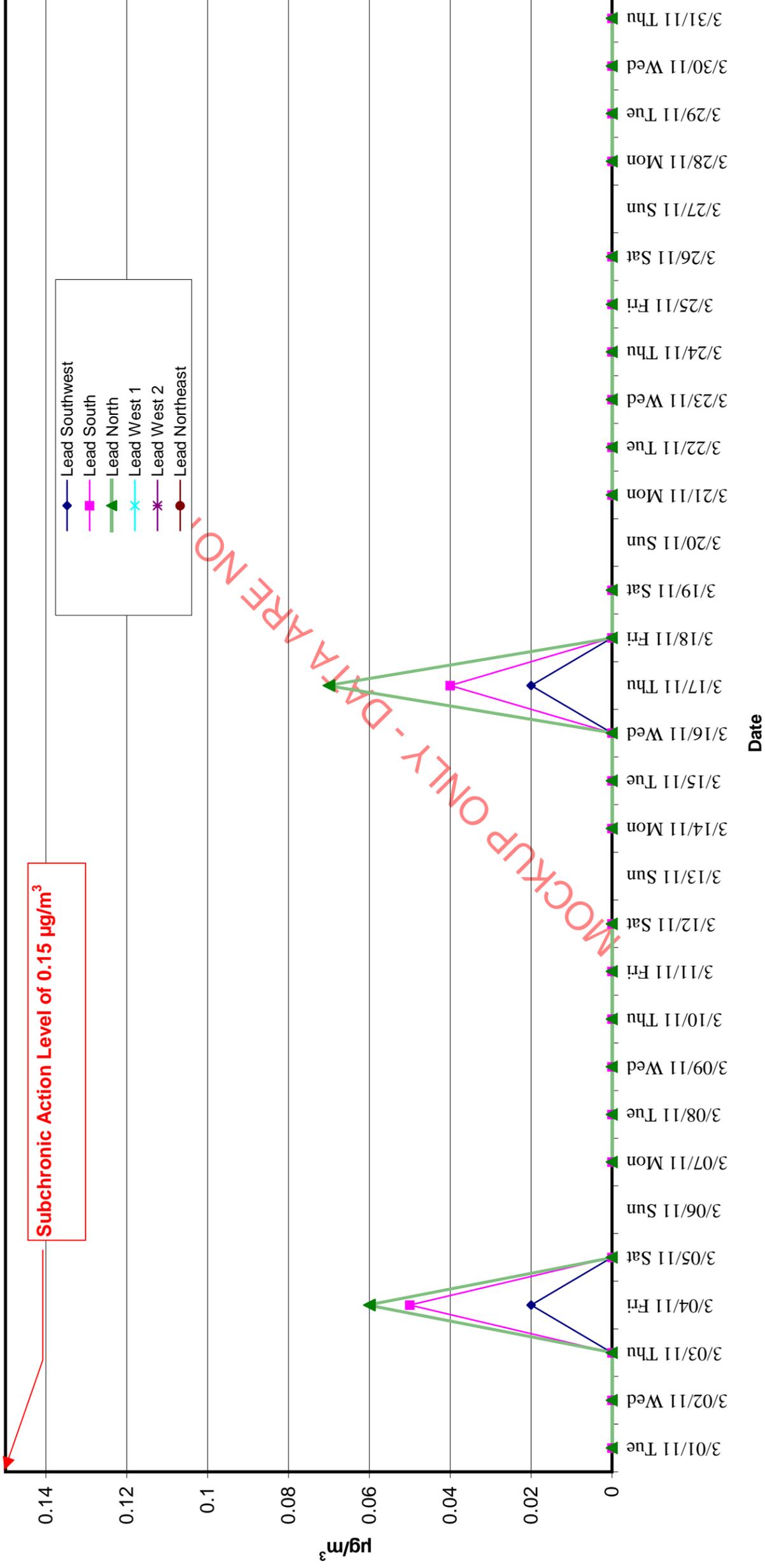
MOCKUP ONLY - DATA ARE NOT REAL

Chart 1a. Airborne Respirable Arsenic ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
Analyzed by ICP/MS



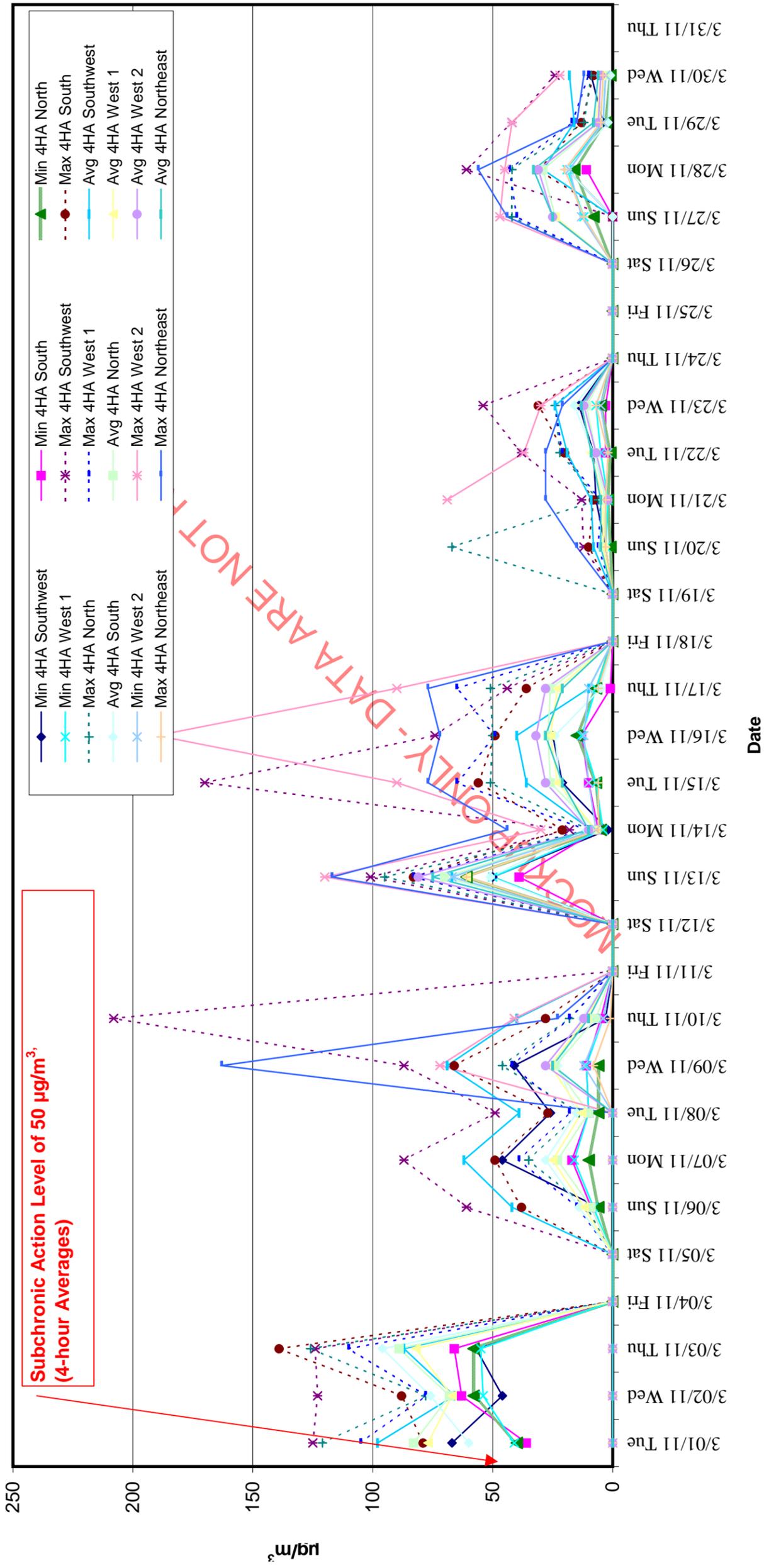
Notes:
a. non-detectable values (typ. $<0.01 \mu\text{g}/\text{m}^3$), are plotted as zero values
b. $\mu\text{g}/\text{m}^3$ = micrograms/ cubic meter

**Chart 1b. Airborne Respirable Lead ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-3/31/2011
 Analyzed by ICP/MS**



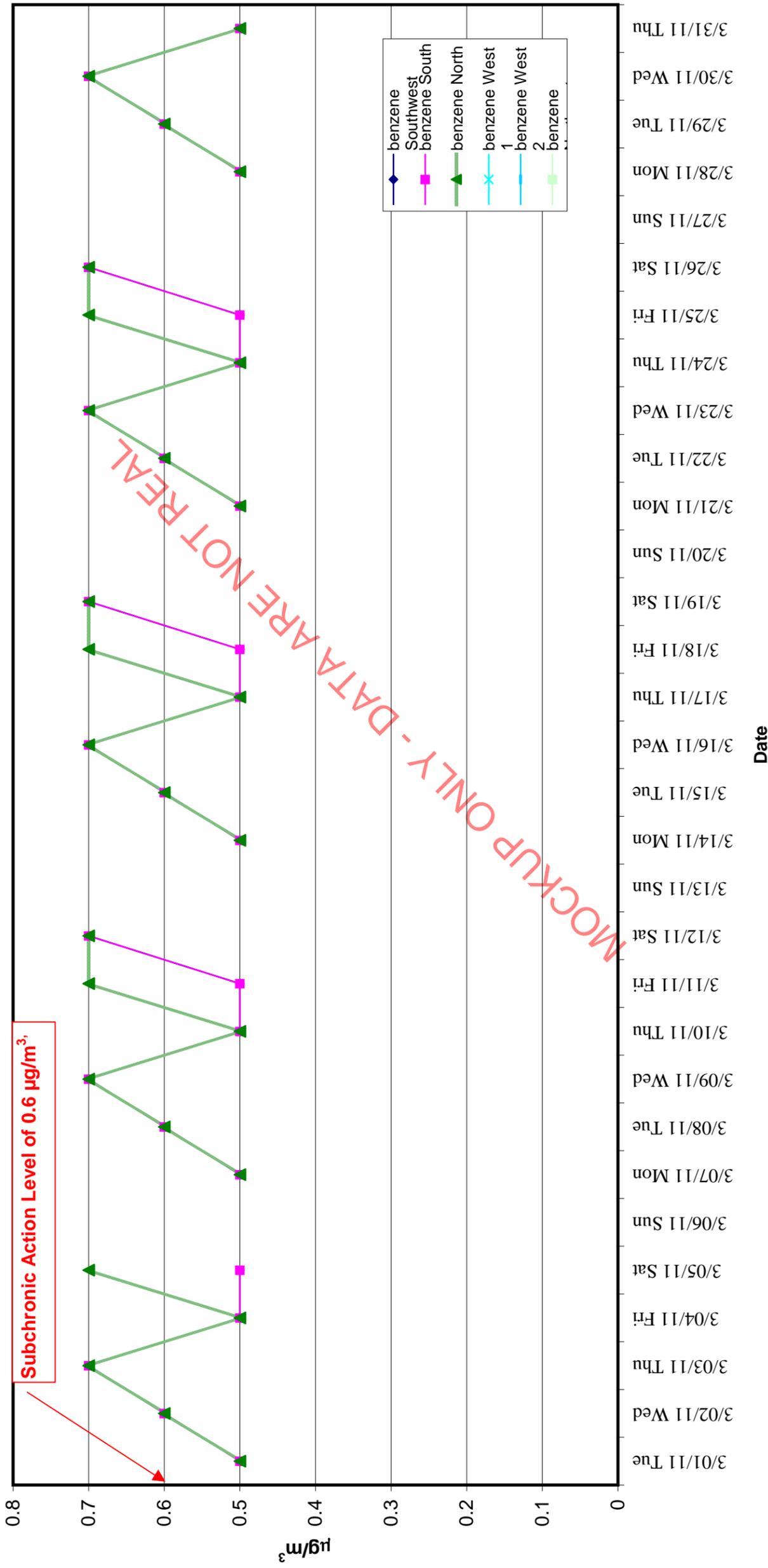
Notes:
 a. non-detectable values (typ. $\sim 0.01 \mu\text{g}/\text{m}^3$), are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ = micrograms/ cubic meter

Chart 2. Airborne Respirable Dust ($\mu\text{g}/\text{m}^3$) 4-Hour Averages
Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
Analyzed by Photometers (AirLogics)



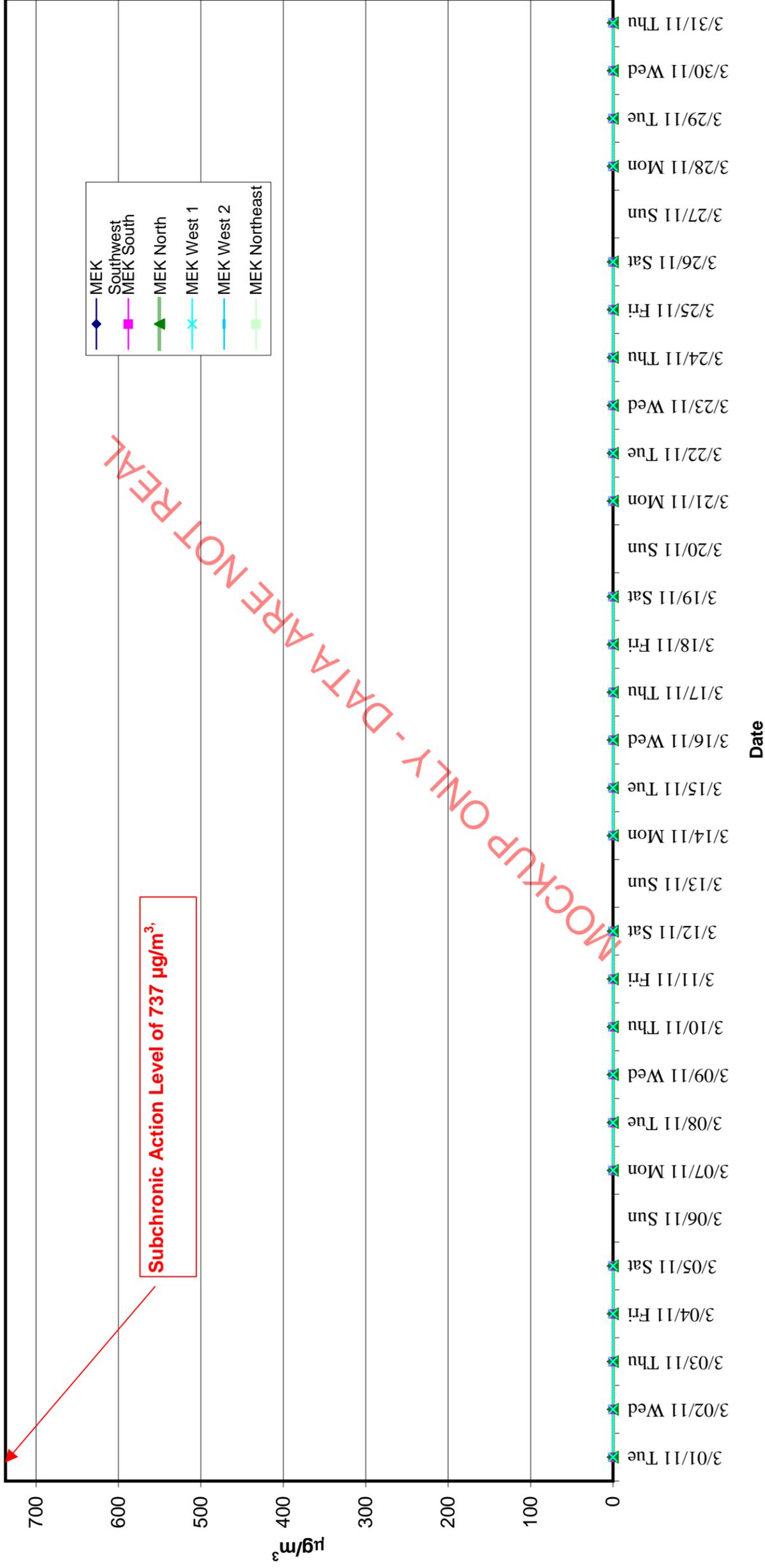
Notes:
a. $\mu\text{g}/\text{m}^3$ = micrograms/ cubic meter

Chart 4a. Airborne Benzene Levels ($\mu\text{g}/\text{m}^3$)
Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
Summa Canisters Analyzed by TO15



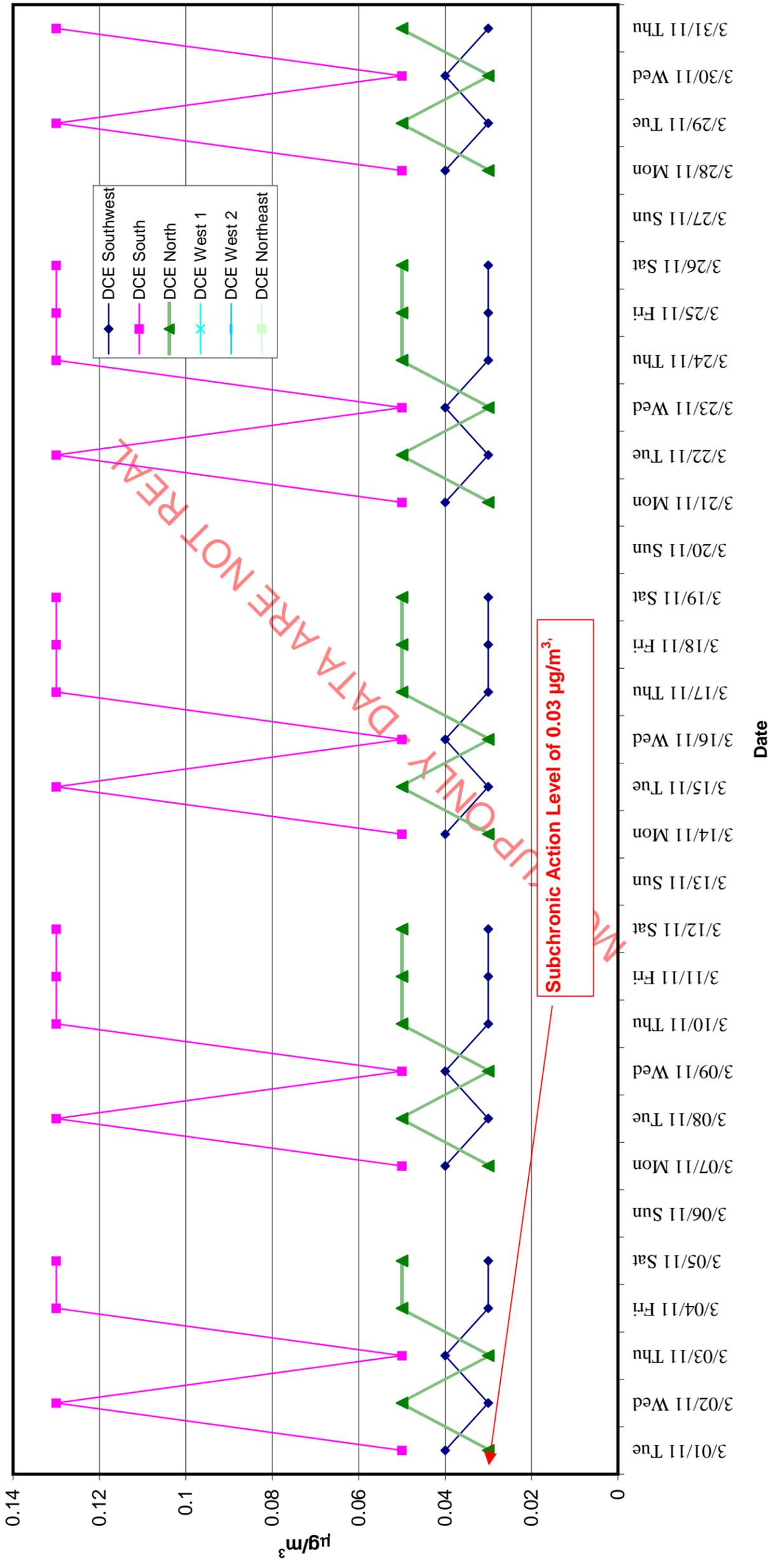
Notes:
a. non-detectable values, are plotted as zero values
b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4b. Airborne MEK Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



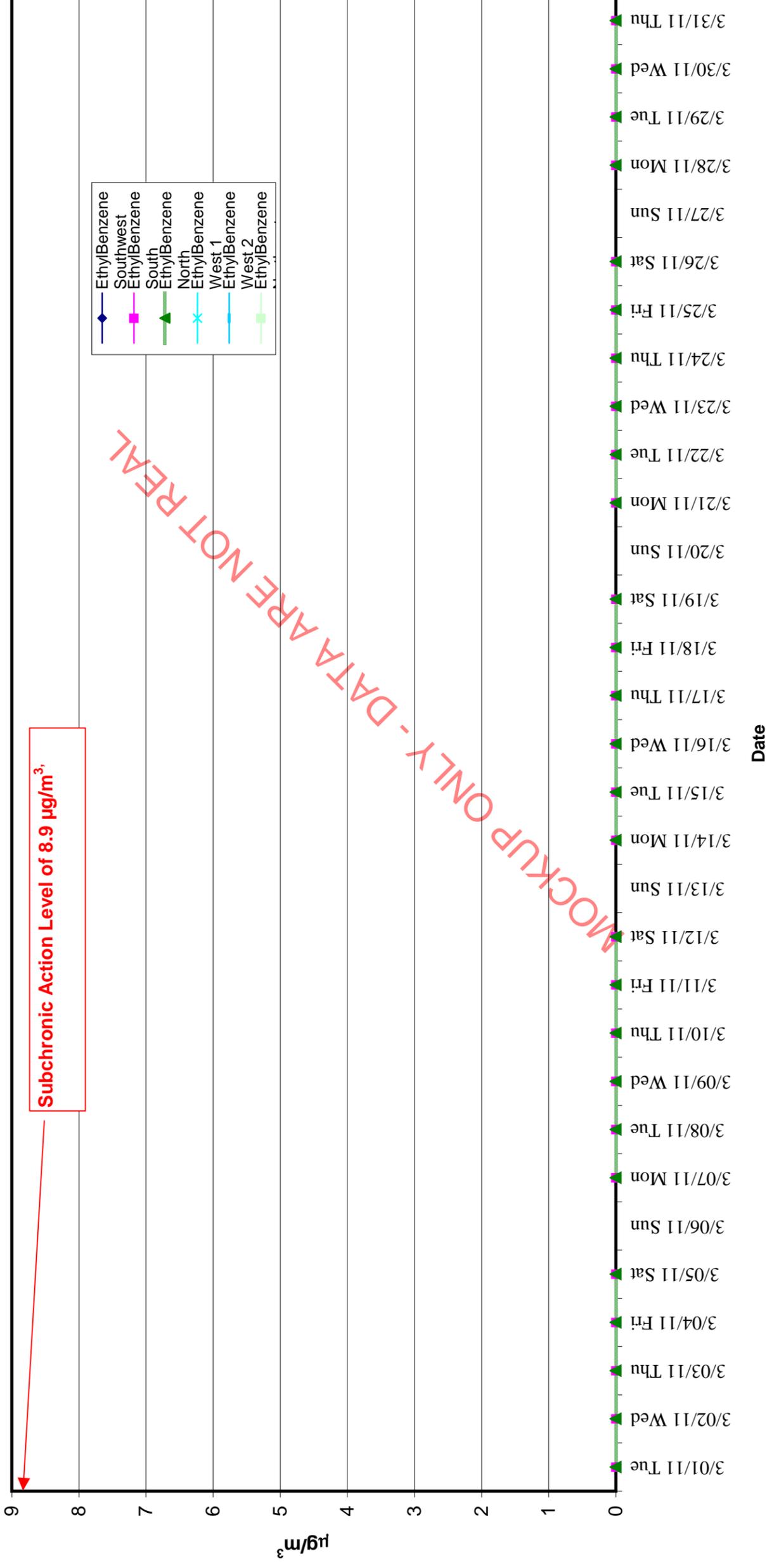
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4c. Airborne 1,2-Dichloroethane Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



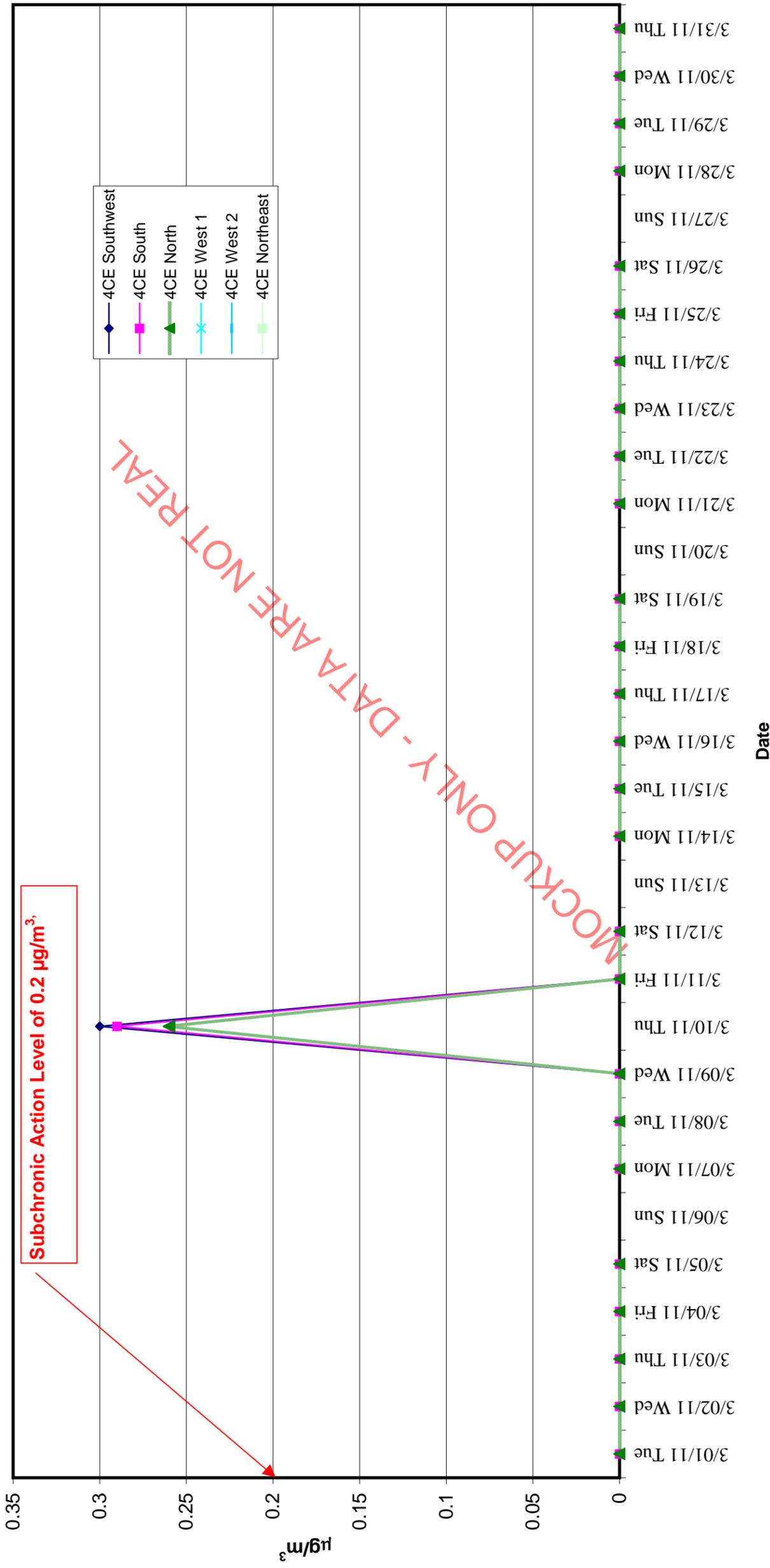
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4d. Airborne Ethyl Benzene Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



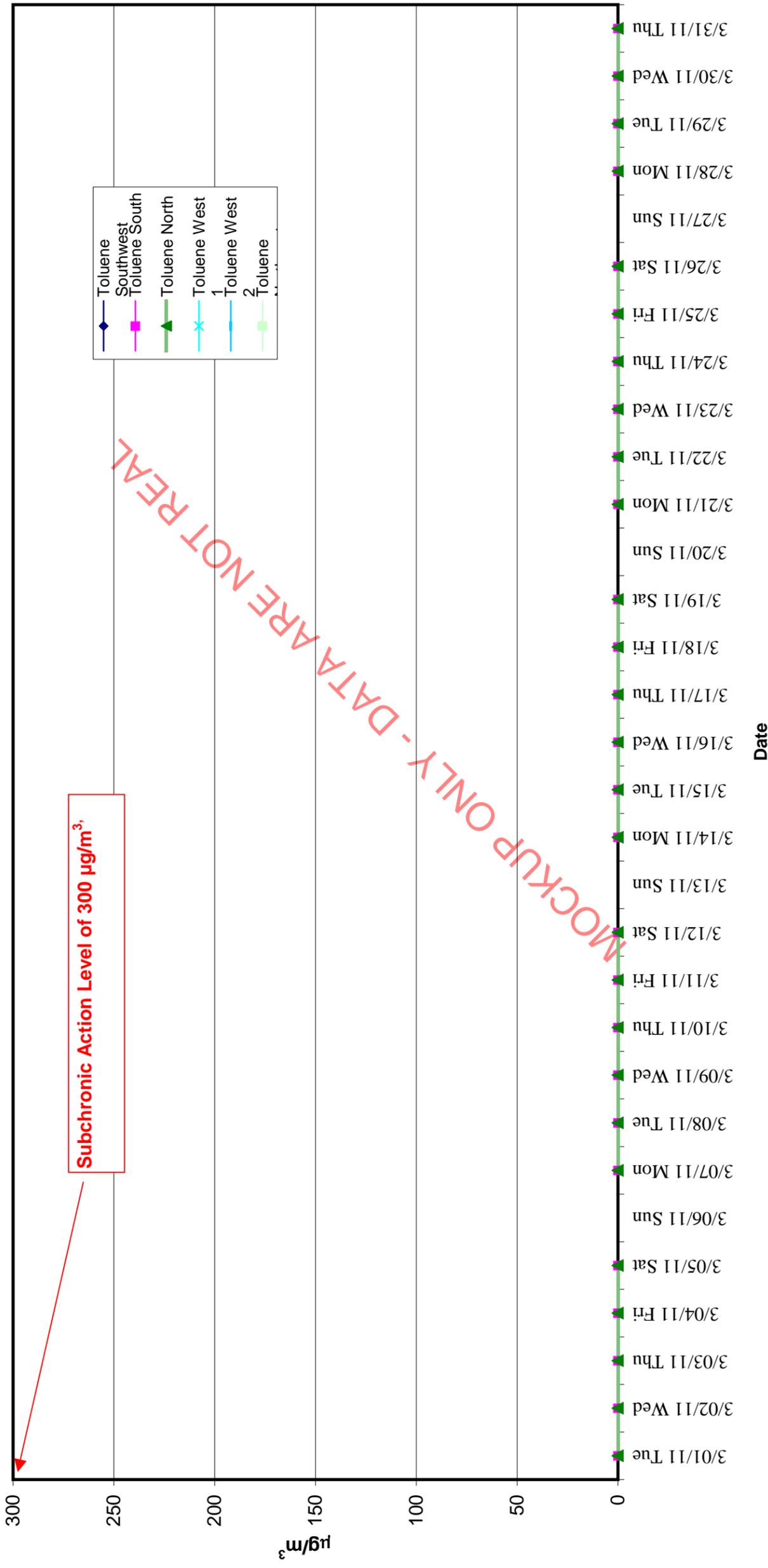
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4e. Airborne Tetrachloroethane Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



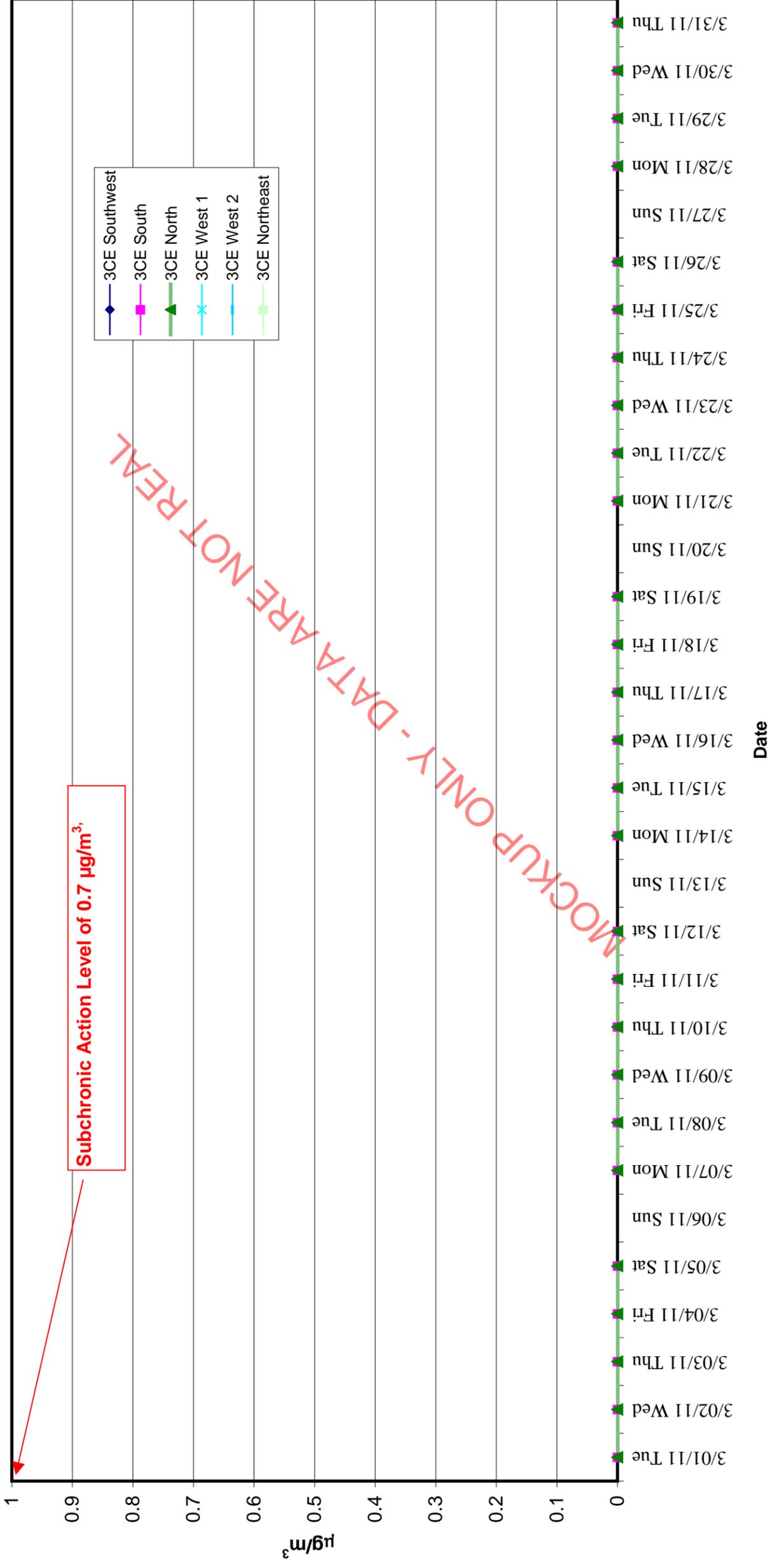
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4f. Airborne Toluene Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

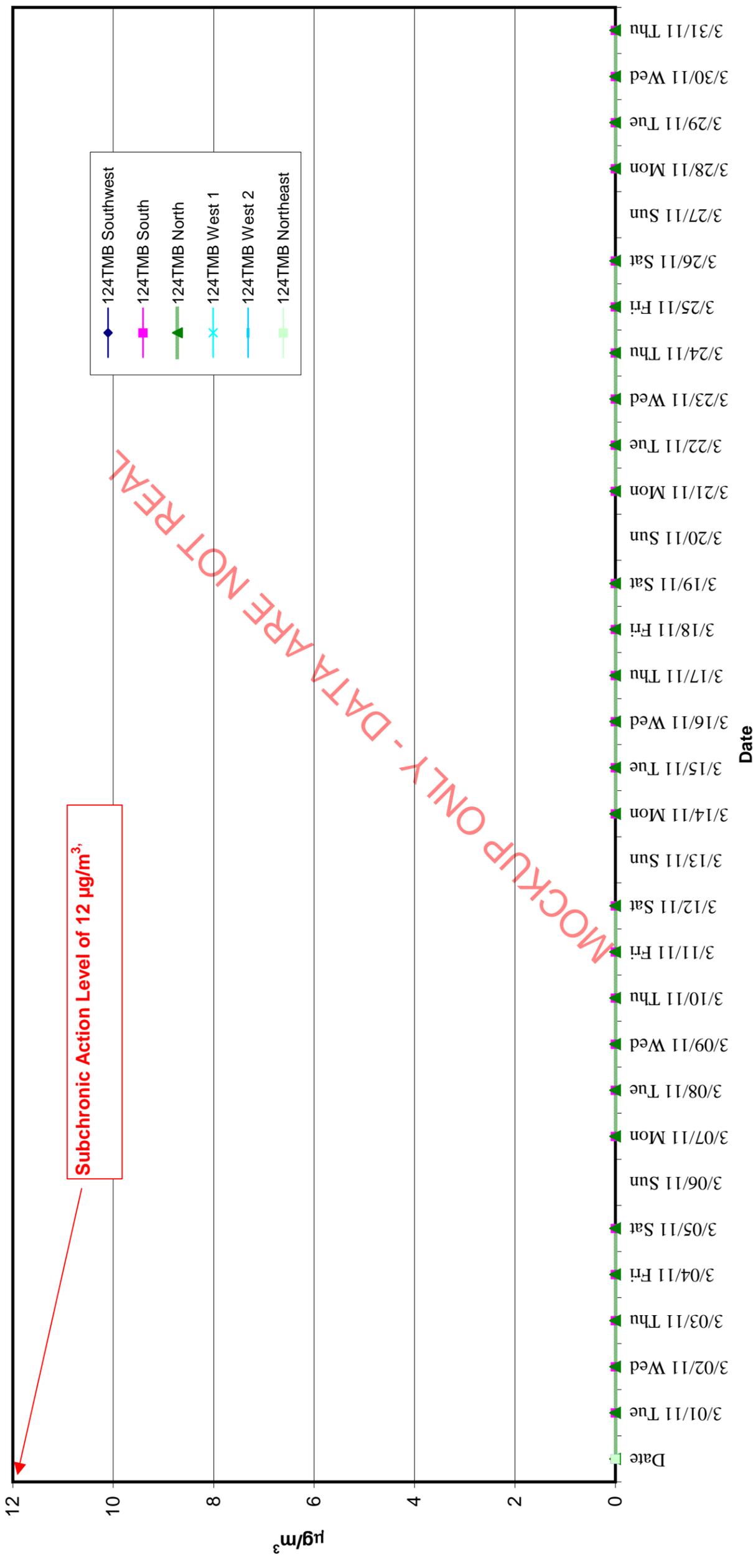
**Chart 4f. Airborne Trichloroethene Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



MOCKUP ONLY - DATA ARE NOT REAL

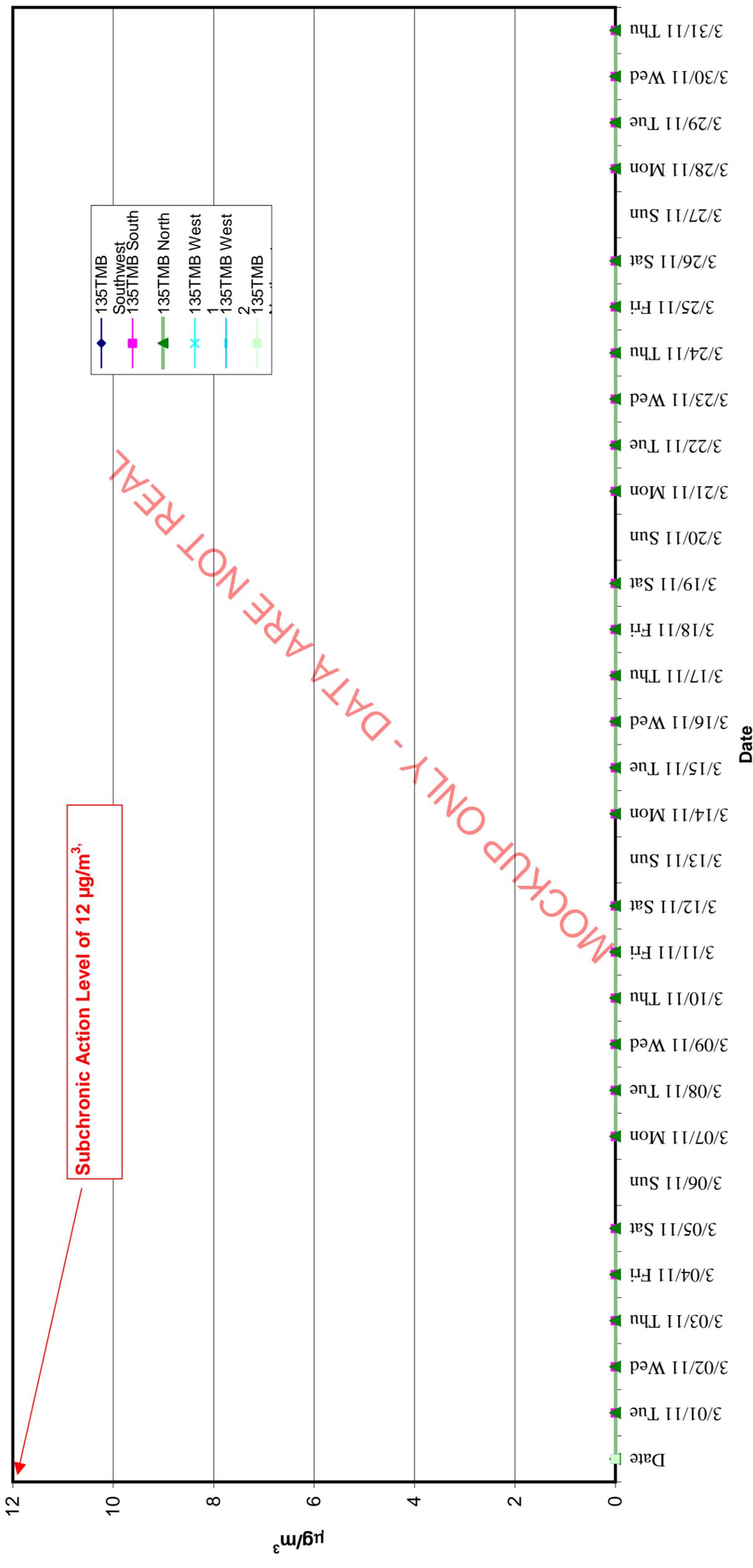
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4f. Airborne 1,2,4-trimethyl benzene Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



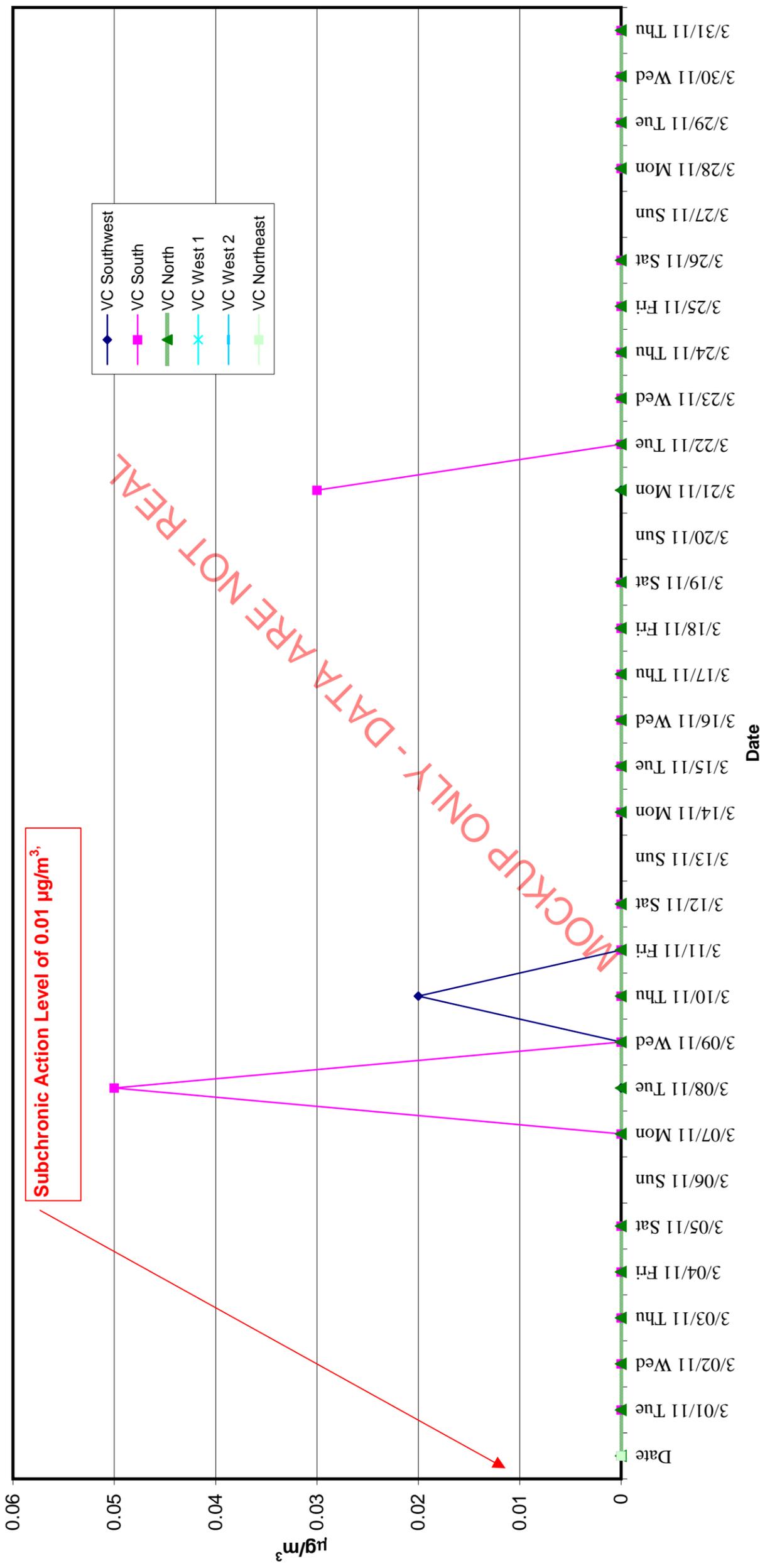
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4f. Airborne 1,3,5-trimethyl benzene Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



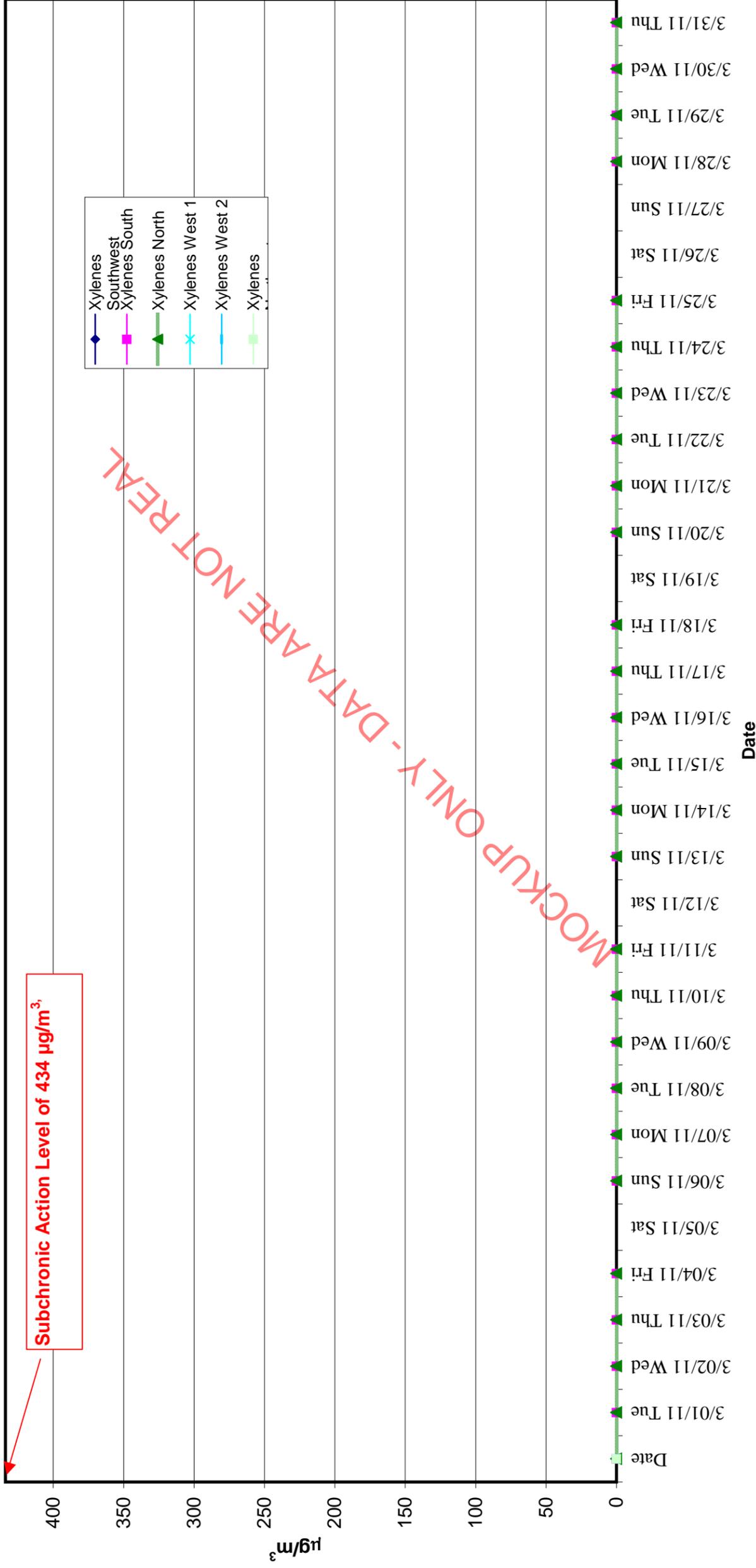
Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4j. Airborne Vinyl Chloride Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

**Chart 4k. Airborne Xylenes Levels ($\mu\text{g}/\text{m}^3$)
 Sherwin-Williams @ Horton & Sherwin, Emeryville - 3/1-/3/31/2011
 Summa Canisters Analyzed by TO15**



Notes:
 a. non-detectable values, are plotted as zero values
 b. $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter

Attachment 4

Community Complaint Log Sheet

Complaint #	001
Date Received	05/01/2011
Commenter Name	Last, First
Commenter Address	25 Hometown Lane
Commenter Phone	510-555-1212
Commenter Email	myname@gmail.com
Complaint	
Response Action Plan	
Response Action Assigned to	[Name of Project Staff Person directed to address comment]
Response Action Completion Date	05/02/2011
Date of Return call to Commenter	05/02/2011
Complaint Type	<p>Check one per logged complaint:</p> <input type="checkbox"/> Dirty Street <input type="checkbox"/> Dust/Particulate <input type="checkbox"/> Noise <input type="checkbox"/> Non-Truck Traffic <input type="checkbox"/> Odor <input type="checkbox"/> Security <input type="checkbox"/> Rail <input type="checkbox"/> Trucks <input type="checkbox"/> Vibration <input type="checkbox"/> Visual issue <input type="checkbox"/> Worker Behavior <input type="checkbox"/> Other