City Ventures

December 17, 2015

Mr. Keith Nowell
Hazardous Materials Specialist
Alameda County Environmental Health Services 1131
Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Re: Soil Management Plan
City Ventures Oakland 2 Site
2240 Filbert Street, Oakland
ACEH Site ID T0000006445
Stantec PN: 185703027

Dear Mr. Nowell:

Enclosed with this cover letter is the Soil Management Plan for the above-referenced City Ventures Oakland 2 location.

As an authorized representative of City Ventures, I offer the following statement:

I, Andrew Warner, declare, under penalty of perjury, that the information and/or recommendations contained in the enclosed Report are true and correct to the best of my knowledge

Should you have any questions, please contact me at 415.845.0293.

Andrew Warner
Director of Development
City Ventures
Andrew@cityventures.com
(415) 845 0293

Soil Management Plan

Oakland 2 Site
Multiple Parcels, Filbert Street, West Grand Avenue, and Myrtle Street
Oakland, California
Stantec Project No: 185703027

Prepared for:
City Ventures
444 Spear Street, Suite 200
San Francisco, California

Prepared by:
Stantec Consulting Services Inc.
1340 Treat Boulevard, Suite 300
Walnut Creek, California

December 17, 2015

Limitations and Certifications

This Soil Management Plan was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site. It was prepared for the exclusive use of City Ventures for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:

Eva Hey

Eva Hey
Senior Geologist

Reviewed by:

Angus E. McGrath, Ph.D.
Principal Geochemist

Information, conclusions, and recommendations provided by Stantec in this document have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:

Neil Doran

Neil Doran, P.G., #8503
Senior Geologist

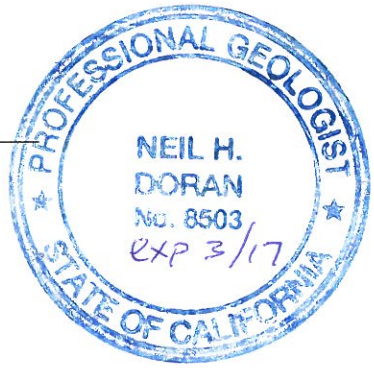


Table of Contents

Table of Contents (Continued)

LIST OF FIGURES

LIST OF APPENDICES

1.0 INTRODUCTION

Site Name:	City Ventures Oakland 2
Site Address:	2240 Filbert Street, Oakland, California
Contact:	Mr. Andrew Warner City Ventures Development 444 Spear Street, Suite 200 San Francisco, California 94105
Consulting Company:	Stantec Consulting Services Inc. – Mr. Angus McGrath/Ms. Eva Hey
Project No.:	185703027
Primary Agency / Contact:	Local Oversight Program (LOP): Alameda County Environmental Health Services – Mr. Keith Nowell California Regional Water Quality Control Board – San Francisco Bay (CRWQCB-SFB) – Ms. Cheryl Prowell

This Soil Management Plan (SMP) has been prepared by Stantec Consulting Services, Inc. (Stantec), on behalf of City Ventures, for the Oakland 2 Site located at 2240 Filbert Street in the City of Oakland, County of Alameda, California (Figure 1; the "Site").

The purpose of the SMP is to provide information regarding known environmental conditions at the Site and to outline general procedures related to long-term management of the Site.

This SMP has been prepared to ensure the proper screening, handling, and disposal of excavated subsurface soil during the redevelopment activities proposed by City Ventures. This SMP outlines the proposed procedures for the screening and proper management of potentially-impacted soil that may be encountered in the subsurface during the planned site redevelopment.

As such, this SMP presents (1) a summary of site background, including environmental sampling information; (2) a summary of the remedial action performed at the Site; and (3) recommended procedures for future management of Site soil and groundwater.

This SMP has been developed based on a review of environmental documents prepared for the Site. If additional environmental information becomes available or the Site development configuration changes, the SMP shall be reviewed and modified as appropriate.

In addition, if the proposed land use changes, the appropriate regulatory agencies shall be notified. It is the responsibility of the property owner to implement the SMP.

2.0 BACKGROUND

This section presents a description of the Site setting and history including geology and hydrogeology, former and current Site use, previous environmental investigations, previous remedial actions and ongoing Site demolition.

The Site is comprised of multiple parcels located between West Grand Avenue, 24th Street, Filbert Street, and Market Street in the City of Oakland, County of Alameda, California (see Figure 2). For the purposes of this report, the area of the former Safeway Ice Cream Plant, between West Grand Avenue, Filbert Street, 24th Street, and Myrtle Street, will be referred to as the "West Grand Block" (see Figure 2). The area of the former parking lot property, located between Myrtle Street and Market Street, will be referred to as the "Market Street Block" (see Figure 2). References to the "Site" refer to both the West Grand Block and the Market Street Block.

The Assessor Parcel Numbers (APNs) for the West Grand Block consist of the following:

- 005-430-017-02 (2338 Filbert Street); and
- 005-430-013-04 (2210 Filbert Street).

The APNs for the Market Street Block consist of the following:

- 005-431-024 (Myrtle Street), -025 (2242 Myrtle Street), -026 (Myrtle Street),-027 (Myrtle Street), and -028 (2310 Myrtle Street);
- 005-431-015-03 (2303 Market Street); and
- 005-431-011 (2317 Market Street) and -012 (2315 Market Street).

2.1 FORMER PROPERTY USE

2.1.1 West Grand Block

The West Grand Block was occupied by residential structures until approximately 1950 when the Union Ice Company plant was built on the south side of the property. Additional businesses, including an automobile repair shop, a cabinet shop, and a cleaning and dyeing works company occupied the Site until the late 1950s. The Safeway Ice Cream Plant operated at the Site from the 1960s until 1994.

The building was converted into multi-tenant space in 1994 when the plant closed. Former tenants included food storage companies, an import car service, and an auto repair facility. The building was vacated in mid-2011.

A review of historical documents relating to the West Grand Block indicated the historical presence of at least six former underground storage tanks (USTs). The locations of Tanks 1 through 6 are shown on Figure 2 and summarized below:

- Tank 1 – a 10,000-gallon gasoline UST and associated dispenser, product lines, and fill ports were closed in-place and are located beneath the sidewalk on the west side of Myrtle Street;
- Tank 2 – an 800-gallon gasoline UST was closed in-place in April 1996 due to its location under a loading dock on the corner of Filbert Street and West Grand Avenue and later removed as part of building demolition in June 2015;
- Tank 3 – a former 1,000-gallon UST of unknown content, which is believed to have been removed, was located in the sidewalk adjacent to Myrtle Street approximately 45 feet south of Tank 1;
- Tanks 4 and 5 – two 10,000-gallon fuel oil USTs located beneath Filbert Street adjacent to the West Grand Block; and
- Tank 6 – a UST of unknown size or contents was possibly located outside the former auto repair shop beneath the sidewalk of Filbert Street.

2.1.2 Market Street Block

The property has been used either as residential or as a parking lot for the former Safeway Ice Cream Plant, with no significant industrial or commercial use, since at least the early 1900s (Gribi 2005).

2.2 CURRENT PROPERTY USE

The former Safeway Ice Cream Factory building on the West Grand Block is currently in the process of being demolished. The asphalt parking lot on the Market Street Block is secured by a locked gate and is not in use.

2.3 PROPOSED PROPERTY USE

City Ventures has proposed redeveloping the Site with a mixed–use, high density residential and commercial development. The development plan is illustrated in Figure 3.

Residential properties have been designed with a parking garage on the ground floor and with the primary living areas on the second and third floors. Approximately half of the units in the Grand Avenue block also have living areas on the ground floor as shown on Figure 3. Commercial spaces will be located on the ground floor along West Grand Avenue and along Market Street.

2.4 GEOLOGY AND HYDROGEOLOGY

Subsurface conditions beneath the Site consist of coarse gravel fill to a depth of one foot below ground surface (bgs); dense clay between approximately 1 and 9 feet bgs; well graded sand with gravel and clay between approximately 9 and 13 feet bgs; and clay between approximately 13 and 19 feet bgs (IT 1996a). The depth-to-groundwater is approximately 9 to 11 feet bgs with a west/southwest flow direction (IT 1996b).

2.5 SCREENING LEVELS

The analytical results of the current and historical investigations were compared to applicable environmental screening levels for soil, groundwater and soil vapor as outlined below.

2.5.1 Soil and Groundwater Screening Levels

San Francisco Bay Regional Water Quality Control Board (RWQCB) Tier 1 Environmental Screening Levels (**ESLs**) for residential scenario were used as screening criteria for detected chemical constituents in soil and groundwater. ESLs are conservative long-term screening levels that correspond to an acceptable risk level (i.e., cancer risk of less than one-in-one million or 1×10^{-6}; non-cancer hazard quotient of less than 1.0) and are considered to provide long-term protections of human health and the environment. The comparison of detected concentrations to ESLs was conducted to determine where remediation efforts are necessary for the Site to achieve regulatory closure and be cleared for redevelopment.

Chemical compounds detected at the Site for which ESLs are not established were compared to the November 2015 United States Environmental Protection Agency (U.S. EPA) Region 9 Regional Screening Levels (**RSLs**). Similar to ESLs, RSLs are conservative long-term screening levels that correspond to an acceptable risk level.

There are no screening criteria established for total petroleum hydrocarbons (TPH) as mineral spirits (TPHms), but in electronic correspondence dated October 20, 2015, ACEH staff stated that it is appropriate to compare concentrations of these compounds against a screening level of 100 mg/kg. Concentrations of the constituents below their respective ESLs or RSLs can be considered to pose no significant risk.

2.5.2 Soil Vapor Screening Levels

Soil vapor screening levels were derived using the RWQCB Tier 1 residential scenario ESL and an attenuation factor of 0.001. The attenuation factor is based on the California Department of Toxic Substances Control (DTSC) October 2011 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance- Table 2*; DTSC 2011)which recommends an attenuation factor of 0.001 be applied to indoor air screening levels for future residential construction. Concentrations of the constituents below their respective soil vapor screening level can be considered to pose no significant risk.

2.6 ENVIRONMENTAL INVESTIGATIONS

2.6.1 Grand Avenue Block 1994 Soil and Groundwater Investigations

Phase I and Phase II Investigations were conducted in 1994. Soil and/or groundwater samples were collected at over 60 borings across the site and at locations near the Site (Figure 2).

Soil samples were analyzed for one or more of the following constituents: benzene, toluene, ethylbenzene and xylenes (BTEX), total petroleum hydrocarbons as diesel (TPHd), TPH as gasoline (TPHg), TPH as mineral spirits (TPHms), TPH as motor oil (TPHmo), oil and grease, semi-volatile organic compounds (SVOCs) and volatile organic compounds (VOCs). Select soil samples were also analyzed for polychlorinated biphenyls (PCBs) and TPH as benzin.

Groundwater samples were analyzed for one or more of the following constituents: BTEX, TPHd, TPHg, TPHms, oil and grease, SVOCs and VOCs.

Analytical results from the 1994 investigation have been summarized in tables included in Appendix A. A figure showing the historical sampling locations is also included in Appendix A.

2.6.2 Grand Avenue Block 1996 Groundwater Investigations

A groundwater investigation was completed in 1996, including the installation of four groundwater monitoring wells (MW-1 through MW-4, Figure 2). The maximum concentrations of benzene and TPHg in groundwater were 10 parts per billion (ppb) and 840 ppb, respectively. TPHd was not detected above the laboratory detection limit (LRL). Based on the results of the groundwater monitoring investigation, the LOP issued a Final Case Closure Letter dated January 30, 1997, for the former Safeway Ice Cream Plant (aka West Grand Refrigeration Facility). The January 30, 1997 letter stated no further action was required regarding the subsurface investigation, the USTs and/or associated monitoring wells. However, the LOP stated that if there was a change in land use from industrial/commercial, the owner must notify the LOP and the City of Oakland Department of Public Works.

2.6.3 Grand Avenue Block 2014 Soil and Soil Vapor Investigation

Stantec conducted a soil and soil vapor investigation in May 2014 as part of the due diligence activities associated with the sale of the property. The purpose of the investigation was to further evaluate the potential impact of known and suspected USTs and areas of interest in the West Grand Block. The objective of Stantec's investigation was to determine whether any further remediation was necessary to render the Site suitable for residential development pursuant to conservative, human health-protective screening criteria.

Soil borings were advanced at four locations (SB/SV-1, SB/SV-2, SB/SV-3, SB/SV-4; Figure 2). Soil samples were collected at each of the locations and analyzed for VOCs. Two soil samples (SB-2 and SB-4) were also analyzed for PCBs. Soil gas samples were also collected at each location and submitted for analysis of VOCs by EPA Method 8260.

All soil sample results for VOCs were below laboratory reporting limits (LRLs), with the exception of the soil sample from boring SB-4. The sample from SB-4 reported VOC as naphthalene (0.072 mg/kg), cumene (0.58 mg/kg), propylbenzene (0.67 mg/kg), and 4-cymene (0.70 mg/kg). The concentration of naphthalene reported for SB-4 (0.072 mg/kg) was significantly less than the ESL (1.2 mg/kg) and the RSL (3.8 mg/kg). The detections of cumene and propylbenzene reported in SB-4 were also well below the RSLs of 190 mg/kg and 330 mg/kg, respectively. Screening levels for 4-cymene have not been established by the San Francisco Bay RWQCB or the EPA Region 9. Further, no PCBs were detected above the LRL in samples from SB-2 and SB-4.

Dichlorodifluoromethane (Freon 12) was the only VOC detected in the soil vapor samples. Freon 12 was detected at three of the four locations (SV-1, SV-2, and SV-4) at concentrations ranging from 110 micrograms per cubic meter (µg/m^3) in SV-4 to 19,000 µg/m^3 in SV-1.

The January 2015 Resident Air RSL for Freon 12 is 100 µg/m^3. With the California DTSC October 2011 *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance*; DTSC 2011) attenuation factor of 0.001 applied to the indoor air RSLs for future residential construction, the resulting residential screening level for Freon 12 in soil vapor is 100,000 µg/m^3. Therefore, the only VOC detected in soil vapor, Freon 12, was present at concentrations below the screening level.

2.6.4 Market Street Block 2005 Soil Sample Collection and Analysis

Soil samples were collected at depths of either 2 or 4 feet below ground surface at seven locations (B-1 through B-7; Figure 2) on the Market Street Block in 2005 and analyzed for total lead. Lead was detected in four of the seven soil samples at concentrations ranging from 3.2 mg/kg to 310 mg/kg. The lead concentrations detected at two locations (B-1 [310 mg/kg] and B-7 [81 mg/kg]) exceed the 2013 Tier 1 residential soil ESL of 80 mg/kg.

2.6.5 Market Street Block 2014 Soil Sample Collection and Analysis

In May 2014, soil samples were collected in the Market Street Block to further evaluate the presence of lead in soil reported in the 2005 investigation. Four soil borings (SB-5, SB-6, SB-7, and SB-8; Figure 2) were advanced and continuously cored to a total depth of approximately 10 feet bgs in the Market Street Block. Soil samples were collected for analysis from four depth intervals at each boring location (0-1 feet bgs, 2-3 feet bgs, 6-7 feet bgs, and 9-10 feet bgs). Total lead was detected in all 16 samples analyzed at concentrations ranging from 2.0 mg/kg (SB-7, 7') to 94 mg/kg (SB-5, 1'). All of the samples were below the ESL of 80 mg/kg, with the exception of the one sample from SB-5 which reported a lead concentration of 94 mg/kg at a depth of 1 foot bgs.

2.7 CONSTITUENTS OF CONCERN

Based on comparison of site data to screening criteria (ESLs and/or RSLs), the primary constituents of concern (COCs) at the site are petroleum hydrocarbons and VOCs on the Grand Avenue Block, and lead in soil on the Market Street Block. Petroleum hydrocarbons and select

VOCs were detected in groundwater above the screening criteria in historical samples from portions of the Grand Avenue Block.

2.8 MANAGEMENT PLAN OBJECTIVES

The overall objective of the SMP is to assure the continued protection of human health and the environment during long-term site maintenance. The SMP will be available to site workers prior to the implementation of any earthwork activities on site to address potential environmental issues that may be associated with construction activities, such as encountering unknown conditions as part of excavation activities. Based upon review of site conditions, the following specific objectives were developed for the site:

- present guidelines for appropriate health and safety precautions for maintenance workers who may access soil and/or groundwater that could contain residual chemicals; and
- present procedures for the management of residual constituents present in soil and groundwater at the site during subsurface (earthwork) activities.

Terms used in this SMP include the following:

- Owner—property owner at any given time (term also applies to leaseholders).
- Contractor—party conducting on-site activities as engaged by the Owner or other parties.

3.0 SITE MANAGEMENT MEASURES

This section outlines site management measures that shall be implemented during earthwork activities.

3.1 HEALTH AND SAFETY GUIDELINES

Health and safety is the responsibility of the entity performing subsurface intrusion. Therefore, a site-specific health and safety plan (HSP) shall be developed by all contractors for activities that encounter native soil at the site. This plan should describe the intrusive activities and address standard safety precautions such as protective measures for workers and soil and groundwater handling issues. The HSP will describe the minimum standards that shall be adhered to during intrusive site activity; it shall be the responsibility of the contractor to ensure that these standards and other precautions, as necessary, will be implemented throughout the course of any intrusive activity.

3.2 PROPOSITION 65 NOTIFICATION

Chemicals identified under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) have been detected in soil at the site. Proposition 65 notifications are required if the estimated exposure to a person exceeds State of California Office of Environmental Health Hazard Assessment (OEHHA) safe harbor level (SHL). SHLs are called no significant risk levels (NSRLs) for chemicals classified as carcinogens, and maximum allowable dose levels (MADLs) for chemicals with reproductive end points.

Based on recommended exposure assumptions that are used in health risk assessments and accepted by regulatory agencies (i.e., exposure parameters for utility workers, Water Board ESLs, 2013) and an evaluation of the existing analytical data for the site, Proposition 65 notifications are not required for the chemicals and the concentrations that are known to be present in soil. However, we recommend that contractors independently evaluate the need for Proposition 65 notification to their workers. It also is recommended that contractors provide their own evaluation on the need for Proposition 65 notification associated with other activities under their control. Such activities may involve exposure issues beyond the presence of chemicals in soil at the site, for example but not limited to equipment diesel exhaust in air.

4.0 GRAND AVENUE BLOCK SOIL MANAGEMENT

The Grand Avenue Block will require additional clean fill material for development. The clean fill will meet the requirements specified in the DTSC Information Advisory: Clean Imported Fill Materials (Appendix B).

Petroleum hydrocarbons have not been identified as a risk-driving chemical of concern on the Grand Avenue Block, so active remediation of soil impacted by TPH will not occur. However, TPH-impacted soils may be encountered during construction activities such as excavation for building foundation or utilities.

If during the construction activities petroleum affected soil or other suspect materials are encountered, the contractor shall immediately notify the Site Owner and ACEH. Suspect materials include areas of obvious contamination including chemical odors and/or staining. Equipment used to excavate or otherwise handle petroleum affected soil shall not be used to excavate or otherwise handle non-petroleum affected soil until it has been adequately decontaminated. If physical handling of petroleum affected soil is required, appropriate gloves shall be worn.

The following soil management guidelines are to be followed during and after intrusive activities.

4.1 SOIL EXCAVATION

During, grading, trenching, or excavation activities the excavated soil shall be inspected. If a lens, or layer, of soil impacted by petroleum hydrocarbons or other suspect constituents is encountered, the suspect material shall be excavated and stockpiled separately for off-Site disposal at an appropriate, licensed disposal facility. The extent of excavation shall be determined based on results of post-excavation soil sampling. Analytical constituents and comparison of results to applicable screening criteria (such as ESLs) shall be confirmed with ACEH.

4.2 SOIL STOCKPILING

Stockpiled native soil shall be placed on plastic or pavement and covered at the end of each work day. The method of covering will be determined based on the anticipated time that the stockpiles will be in place, weather conditions, and other practical factors such as the size of the stockpiles. If the stockpiled soil is found to contain chemicals of potential concern, it shall be fenced or otherwise protected. Storm water management practices shall be consistent with all applicable rules and regulations.

4.3 OFF-SITE SOIL DISPOSAL OR REUSE

Soil to be disposed of off-Site shall be profiled for constituents as requested by the appropriate receiving landfill facility (e.g., hazardous, non-hazardous, or recycling). The receiving facility will be contacted for profile requirements for acceptance of import soil. It is anticipated that testing will be required to evaluate, at a minimum, the presence of lead and petroleum hydrocarbons.

If any site soil is to be considered for re-use off site at another location, the basis for this consideration shall be evaluated and determined by the Owner or its representative. No soil may be reused off site without the written consent of the Owner. All soil designated for export off site must meet the minimum requirements for soil sampling and analysis by the Department of Toxic Substances Control (DTSC) in effect at the time the work is performed. The current DTSC requirements are described in the 2001 guidance document "Import Advisory Clean Import Fill Material," which is included in Appendix B (DTSC, 2001).

4.4 IMPORTED FILL MATERIAL

It is anticipated that an estimated 8,000 cubic yards of soil will be imported for use as clean fill as part of the Site development. Imported fill material must meet the minimum requirements for soil sampling and analysis designated by the DTSC to avoid the placement of chemically-impacted soil on site; these requirements are presented in Appendix B. The specific chemicals to be tested and the frequency of testing will be evaluated on a case-by-case basis determined by the Owner or its representative.

4.5 DUST CONTROL

During soil excavation activities occur, dust control measures shall be implemented to minimize dust generation. All excavation work will be performed in accordance with the Occupational Safety and Health Administration (OSHA) and Cal/OSHA regulations. During excavation activities, dust control measures, such as application of water for soil wetting and minimizing drop heights during soil transfers, will be used if necessary to minimize generation of airborne dust. Basic dust control measures for construction related projects are outlined by the Bay Area Air Quality Management District (BAAQMD) in Chapter 8 of their 2011California Environmental Quality Act (CEQA) Guidelines (Appendix C).

4.6 DUST MONITORING

During remediation activities, dust control measure will be implemented, per VTPM 8551-8555, Exhibit C, Conditions of Approval, Section 15, *Dust Control Measures* (Oakland City Council, 2005). These measures include covering soil stockpiles, watering construction areas, and street sweeping. Additionally, the contractor will continuously monitor airborne dust at the upwind and downwind Site perimeters during all potential dust-generating activities (i.e., operation of heavy equipment, excavation, stockpiling, and loading) using direct-reading instruments (e.g., Mini-Ram pDR 1000™) for measurement of total suspended particulate matter. Electronic data

logs of real-time measurement will be used to determine the maximum and average dust concentrations at the upwind and downwind perimeter monitoring locations. If the instantaneous reading of dust generated by site operations exceeds 50 micrograms per cubic meter (µg/m^3), corrective actions will be taken to mitigate generation of dust.

4.7 UNANTICIPATED SUBSURFACE CONDITIONS

Should unanticipated conditions be encountered during subsurface activities (such as the presence of a UST, drum, or other debris that does not appear inert) the contractor shall immediately cease work in this area and notify the Owner of the unanticipated conditions. If applicable, the ACEH Certified Unified Program Agency (CUPA) will be contacted for further instructions. Work shall proceed in other areas of the site until the Owner has cleared the area for continuation of work and has notified the contractor that the unanticipated conditions have been evaluated and mitigated, as necessary.

4.8 SOIL TRANSPORTATION

All trucks transporting soil will be covered or maintain at least two feet of freeboard. Loading of trucks will be managed to minimize the release of material onto the ground, and trucks will be inspected to remove any soil adhering to tires or other surfaces. The anticipated route for construction traffic includes access to project site via West Grand Avenue and the use Grand Avenue to access Interstate 880 or 980.

5.0 MARKET STREET BLOCK SOIL MANAGEMENT

Lead-impacted soil which exceeds the screening level has been identified in two areas of the Market Street Block. Soil that exceeds the cleanup criteria in these two areas will be removed during remedial efforts prior to residential development and prior to implementation of this SMP. The lead impacted soil removal action was proposed in the Interim Remedial Action Plan submitted to ACEH on November 23, 2015 (Stantec, 2015).

If during the construction activities petroleum affected soil or other suspect materials are encountered, the contractor shall immediately notify the Site Owner and ACEH. Suspect materials include areas of obvious contamination including chemical odors and/or staining. Equipment used to excavate or otherwise handle petroleum affected soil shall not be used to excavate or otherwise handle non-petroleum affected soil until it has been adequately decontaminated. If physical handling of petroleum affected soil is required, appropriate gloves shall be worn.

The following soil management guidelines are to be followed during and after intrusive site activities.

5.1 SOIL EXCAVATION

During, grading, trenching, or excavation activities the excavated soil shall be inspected. If a lens, or layer, of suspect material is encountered, the visibly impacted soil shall be excavated and stockpiled separately for off-Site disposal at an appropriate disposal facility. The extent of excavation shall be determined based on results of post-excavation soil sampling. Analytical constituents and comparison of results to applicable screening criteria (such as ESLs) shall be confirmed with ACEH.

5.2 SOIL STOCKPILING

Stockpiled native soil shall be placed on plastic or pavement and covered at the end of each work day. The method of covering will be determined based on the anticipated time that the stockpiles will be in place, weather conditions, and other practical factors such as the size of the stockpiles. If the stockpiled soil is found to contain chemicals of potential concern it shall be fenced or otherwise protected. Storm water management practices shall be consistent with all applicable rules and regulations.

5.3 OFF-SITE SOIL DISPOSAL OR REUSE

Soil to be disposed of off-Site shall be profiled for constituents as requested by the appropriate receiving landfill facility (e.g., hazardous, non-hazardous, or recycling). The receiving facility will be contacted for profile requirements for acceptance of import soil. It is anticipated that testing will be required to evaluate, at a minimum, the presence of lead and petroleum hydrocarbons.

If any site soil is to be considered for re-use off site at another location, the basis for this consideration shall be evaluated and determined by the Owner or its representative. No soil may be reused off site without the written consent of the Owner. All soil designated for export off site must meet the minimum requirements for soil sampling and analysis by the DTSC in effect at the time the work is performed. The current DTSC requirements are described in the 2001 guidance document "Import Advisory Clean Import Fill Material," which is included in Appendix B (DTSC, 2001).

5.4 IMPORTED FILL MATERIAL

Imported fill material must meet the minimum requirements for soil sampling and analysis designated by the DTSC to avoid the placement of chemically-impacted soil on site; these requirements are presented in Appendix B. The specific chemicals to be tested and the frequency of testing will be evaluated on a case-by-case basis determined by the Owner or its representative.

5.5 DUST CONTROL

During the duration of soil excavation activities, dust control measures shall be implemented to minimize dust generation. All excavation work will be performed in accordance with the Occupational Safety and Health Administration (OSHA) and Cal/OSHA regulations. During excavation activities, dust control measures, such as application of water for soil wetting and minimizing drop heights during soil transfers, will be used if necessary to minimize generation of airborne dust. Basic dust control measures for construction related projects are outlined by the Bay Area Air Quality Management District (BAAQMD) in Chapter 8 of their 2011California Environmental Quality Act (CEQA) Guidelines (Appendix C).

5.6 DUST MONITORING

During remediation activities, dust control measure will be implemented, per VTPM 8551-8555, Exhibit C, Conditions of Approval, Section 15, *Dust Control Measures* (Oakland City Council, 2005). These measures include covering soil stockpiles, watering construction areas, and street sweeping. Additionally, the contractor will continuously monitor airborne dust at the upwind and downwind Site perimeters during all potential dust-generating activities (i.e., operation of heavy equipment, excavation, stockpiling, and loading) using direct-reading instruments (e.g., Mini-Ram pDR 1000™) for measurement of total suspended particulate matter. Electronic data logs of real-time measurement will be used to determine the maximum and average dust concentrations at the upwind and downwind perimeter monitoring locations. If the instantaneous reading of dust generated by site operations exceeds 50 micrograms per cubic meter ($\mu g/m^3$), corrective actions will be taken to mitigate generation of dust.

5.7 UNANTICIPATED SUBSURFACE CONDITIONS

Should unanticipated conditions be encountered during subsurface activities, such as the presence of a UST, drum, or other debris that does not appear inert; the contractor shall immediately cease work in this area and notify the Owner of the unanticipated conditions. If applicable, the ACEH Certified Unified Program Agency (CUPA) will be contacted for further instructions. Work shall proceed in other areas of the site until the Owner has cleared the area for continuation of work and has notified the contractor that the unanticipated conditions have been evaluated and mitigated, as necessary.

5.8 SOIL TRANSPORTATION

All trucks transporting soil will be covered or maintain at least two feet of freeboard. Loading of trucks will be managed to eliminate the release of material onto the ground, and trucks will be inspected to remove any soil adhering to tires or other surfaces. The anticipated route for construction traffic includes access to project site via West Grand Avenue and Myrtle Street or Market Street and the use Grand Avenue to access Interstate 880 or 980

6.0 GROUNDWATER AND STORM WATER MANAGEMENT

6.1 GUIDELINES FOR GROUNDWATER MANAGEMENT

Groundwater may be encountered during future construction activities as part of dewatering activities. Construction de-watering effluent, if generated, shall be pumped into holding tanks and sampled and analyzed for the parameters required for the selected discharge point, such as the storm drain or sanitary sewer. If dewatering effluent is to be discharged to the storm drain, a National Pollutant Discharge Elimination System (NPDES) permit from the Water Board may be required. Pre-arrangement and notification to the City of Oakland Public Works Department and the East Bay Municipal Utility District (EBMUD) is required if dewatering effluent is to be discharged to the City of Oakland sanitary sewer or storm drain system.

Chemical testing shall be performed in accordance with the receiving facility's requirements prior to discharge. If chemicals of concern are detected, the concentrations shall be compared to limits established for the utility where the water ultimately will be discharged. If concentrations are below the limits established for the discharge point, the water will be discharged provided that other applicable requirements are met (e.g., turbidity).

If concentrations exceed the limits established for the discharge point, the water either will be (a) transported off site for disposal at a licensed disposal facility or (b) treated and discharged following sampling and analysis to confirm the success of treatment. Should long-term dewatering be necessary, the Contractor shall determine the requirements for treatment and sampling and analysis of dewatering water generated after the baseline water quality has been established, or whether direct discharge of this water is appropriate.

6.2 GUIDELINES FOR STORM WATER MANAGEMENT

Storm water pollution controls shall be implemented to minimize runoff of sediment in storm water. Storm water pollution controls at construction sites greater than 1 acre in size are regulated using the National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (99-08-DWQ, General Permit). In advance of mobilization, all Contractors disturbing more than 1 acre of the site shall file a Notice of Intent (NOI) to comply with the General Permit on behalf of the Owner. Prior to mobilization, the Contractor shall also prepare a storm water pollution prevention plan (SWPPP) to address requirements for erosion prevention and storm water management during their work in accordance with Water Board and/or State Water Resources Control Board (SWRCB) requirements.

Storm water pollution controls implemented at the site shall be based on Best Management Practices (BMPs). Specific practices that will be implemented to reduce the sediment load of storm water runoff from the site include grading the site to prevent storm water from running off site, installing storm water control devices (earth berms, silt fences, or hay bale barriers) around

the perimeter of unpaved portions of the site until final caps are constructed, and protecting existing catch basins with silt fences, fiber rolls, waddles, or gravel bags. In addition, all Contractors shall store fuel and chemicals in such a manner that prevents accidental spills from impacting storm water.

7.0 MANAGEMENT OF SOIL MANAGEMENT PLAN

This section discusses responsibilities for managing this SMP and the circumstances under which this SMP may be modified.

7.1 RESPONSIBILITIES

The Owner shall oversee implementation of this SMP at the site. In addition, the Owner shall make available a copy of the SMP to Contractors performing earthwork at the site. The Contractor shall be responsible for adhering to this SMP, following project specifications, and ensuring job and site safety. An Owner representative may observe intrusive activities but is not responsible for directing/supervising the Contractor's operations/work. Contractor also is responsible for providing a copy of the SMP to its subcontractors.

7.2 NOTIFICATION

Notification shall be made to the appropriate agency depending on the environmental issue encountered. Notification scenarios include: (1) notification to the ACEH if an unknown underground containment structure (e.g., UST or monitoring well) is encountered; (2) notification to the Water Board or the City of Oakland Public Works Department and EBMUD regarding handling of dewatering effluent; and (3) notification to the ACEH regarding the on-site reuse of soil containing chemicals of potential concern. Notification to the appropriate agency shall be made by the Owner or the Owner's representative.

7.3 MODIFICATIONS TO SOIL MANAGEMENT PLAN

This SMP was developed based on Stantec's understanding of current conditions at the site and applicable regulations. It may be necessary to modify this SMP from time to time for any of several reasons, including:

- change in property use;
- change in understanding of environmental conditions (e.g., newly identified chemicals);
- intrusive activity that is not addressed by this SMP;
- new chemical toxicity information for detected constituents at the site; or
- notification of new requirements by a regulatory agency

8.0 SCOPE, RESPRESENTATIONS, AND LIMITATIONS

This SMP was developed exclusively to soil, groundwater, and storm water management based on information generated during historical Site investigations. This SMP does not address handling or management of hazardous materials that may be encountered during construction projects including, but not limited to, demolition and construction debris, asphalt, concrete, asbestos containing materials, and lead-based paint. If such materials are encountered during the Site redevelopment project, Contractors and workers are responsible for complying with all applicable laws pertaining to the handling and disposal of these materials. In the event that suspected hazardous materials are encountered, the Owner shall contact ACEH and/or the Water Board, as prescribed in Section 7.2.

In preparing this SMP, Stantec has relied upon certain information and documents prepared by others. To the extent that recommendations are based in whole or in part on such information, those conclusions are contingent on its accuracy and validity. Stantec assumes no responsibility for any consequences arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Stantec.

This SMP is based on current known site conditions and current laws, policies, and regulations. No representation is made to any present or future developer or property Owner of the site or portions of the site with respect to future site conditions, other than those specifically identified within this report. Stantec disclaims any responsibility for any unintended or unauthorized use of this Stantec.

Stantec has not made any commitment to, or assumed any obligation or liability to, any present or future developer, property Owner, tenant, consultant, agent, Contractor, user, or other party owning or visiting the site or portion of the site based upon or arising out of implementation of this SMP. It is expressly understood that while this SMP is intended to provide guidance and establish a framework for the management of residual chemicals in soil and groundwater to protect human health and the environment, this SMP shall not create any warranties or obligations to Stantec as to implementation, adequacy, or success of protective measures under this SMP. In the event of any conflict between the terms and conditions of this SMP and the terms and conditions of the master services agreement between City Ventures and Stantec (the "MSA), the MSA shall control.

9.0 REFERENCES

California Department of Toxic Substance Control (DTSC), 2011. Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), October.

California Water Resources Control Board (SWRCB), 2014. GeoTracker Database, website download from http://geotracker.swrcb.ca.gov/.

Gribi Associates, 2005. Report of Phase II Environmental Site Assessment, 2303-2317 Market Street and 2242-2310 Myrtle Street, Oakland, California, March 18.

International Technology Corporation, 1996a. Tank Closure and Ground Water Monitoring Well Installation Report, West Grand Refrigeration Facility (Former Safeway Ice Cream Facility), 2240 Filbert Street, Oakland, California, April.

International Technology Corporation, 1996b. Groundwater Sampling Report, West Grand Refrigeration Facility (Former Safeway Ice Cream Facility), 2240 Filbert Street, Oakland, California, September.

Levine-Fricke, Soil and Ground-Water Investigation Report, 1995. Former Safeway Ice Cream Manufacturing Plant, 2240 Filbert Street, Oakland, California, January 17.

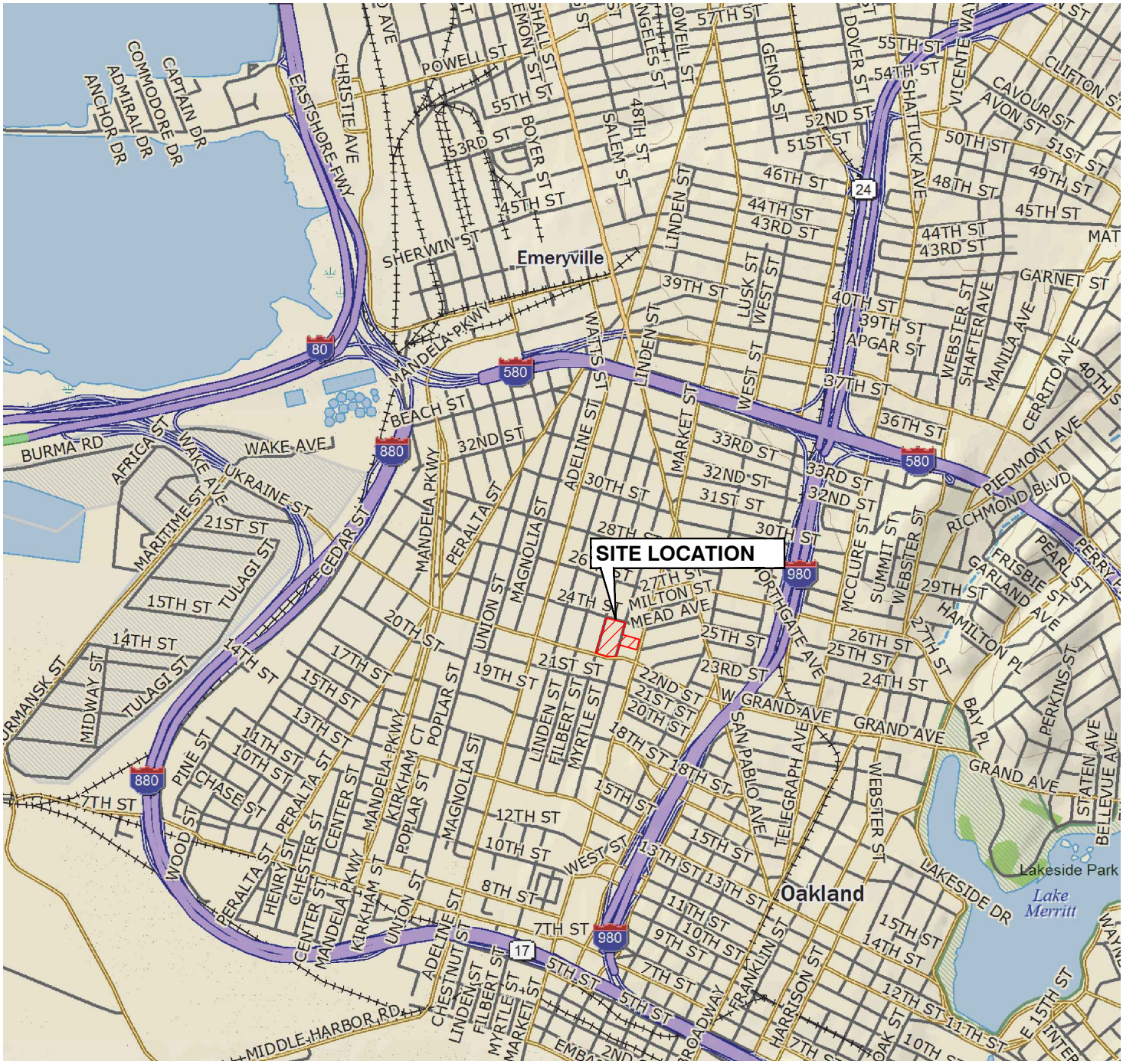
McCulley, Frick & Gillman, Inc. (MFG), 1994. Phase I Environmental Site Assessment Report, Safeway Ice Cream Plant, Oakland, California. (Partial copy). March 14.

Stantec Consulting Services Inc., 2014. Phase I Environmental Site Assessment, Multiple Parcels, Filbert Street, West Grand Avenue, and Myrtle Street, Oakland, California. .May 22. (Attorney-Client Privileged)

Stantec Consulting Services Inc., 2015. Interim Remedial Action Plan, Multiple Parcels, Filbert Street, West Grand Avenue, and Myrtle Street, Oakland, California. November 23.

United States Environmental Protection Agency(U.S. EPA), 2015. Website accessed February 23, 2015. http://www.epa.gov/region9/superfund/prg/.

FIGURES



North

CALIFORNIA

SCALE (MILES): 1 1/2 0 1

SCALE (FEET): 1000 0 1000 2000 3000 4000 5000 6000 7000

REFERENCE: USGS 7.5 MINUTE QUADRANGLE, OAKLAND WEST, CALIFORNIA

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

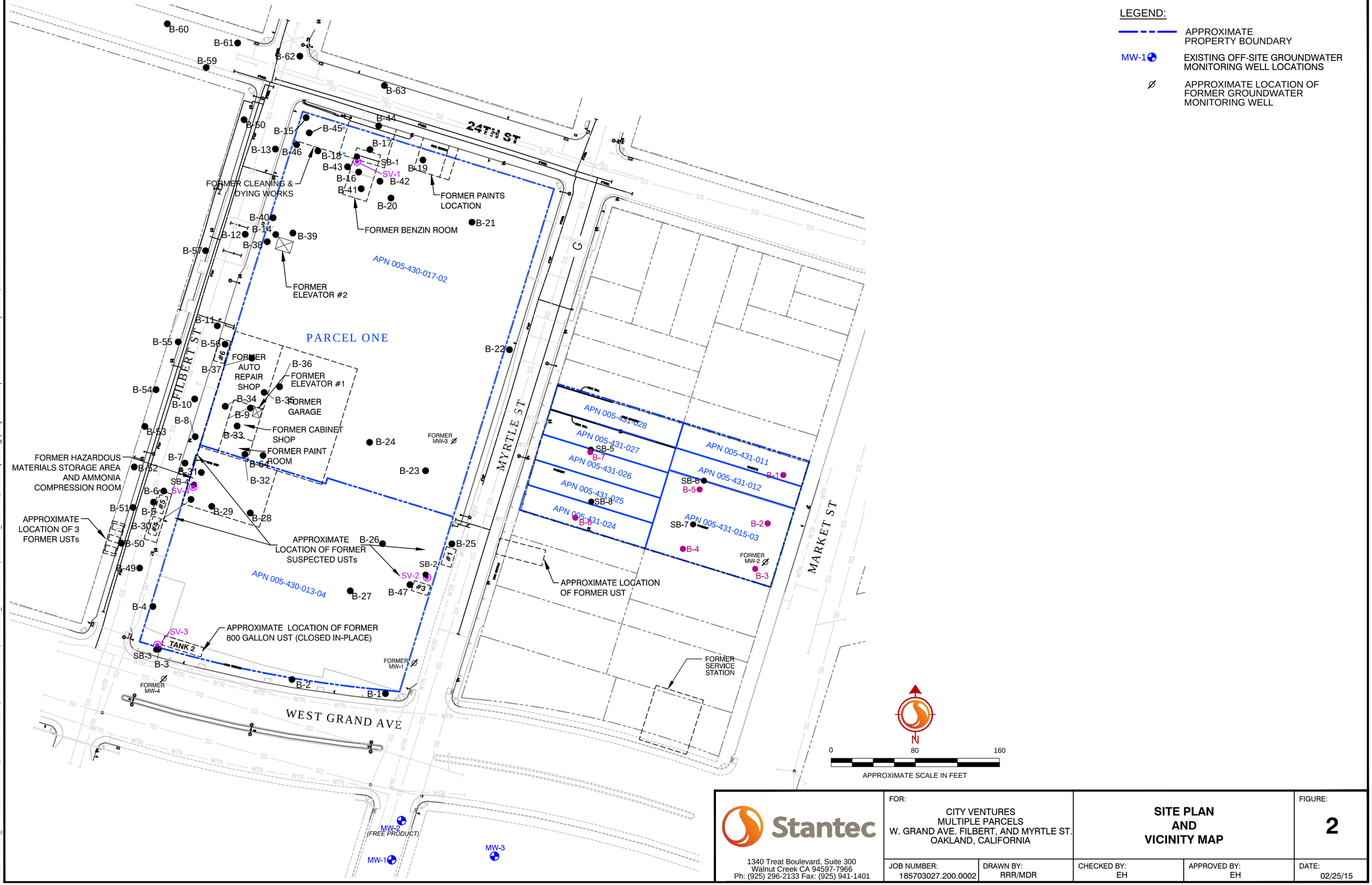
FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

SITE LOCATION MAP

FIGURE: **1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	02/25/15

FILEPATH:V:\1857\active\185702871\z-dwg_design\185703027-F1-SLM.dwg | Layout Tab: Layout1 | Drafter: rroggasch | Sep 10, 2015 at 20:34



FILEPATH:M:_00 OTHER OFFICES\WALNUT CREEK\CITY VENTURES\OAKLAND_Rev-12-11-15\REVISION_12-11-15\Base-Map 2.dwg | Layout Tab: 2 | Drafter: miramirez | Dec 11, 2015 at 17:42

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

SITE PLAN AND VICINITY MAP

FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0002	RRR/MDR	EH	EH	02/25/15

Stantec

1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

SITE DEVELOPMENT PLAN

FIGURE: **3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15

APPENDIX A
ANALYTICAL RESULTS FROM PREVIOUS INVESTIGATIONS

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
Tanks 1 and 3 - Suspected Former USTs in Southeast Yard (West of Myrtle Street)														
Phase I Investigation - 1994														
B-25-13	(20,26)	13	18-Jul-94	<0.005	<0.005	<0.005	<0.005	<0.2	--	--	--	--	--	*(20,26) Pb = ND; TPHd = ND*
B-26-12.5	(20)	12.5	18-Jul-94	<0.005	<0.005	<0.005	<0.005/<0.02	<0.2	--	--	--	--	--	*(20) Pb = ND*
Phase II Investigation - 1994														
B-47-3		3	15-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	--	
B-47-5		5	15-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	--	
B-47-10		10	15-Nov-94	<0.3	<0.3	<0.3	<0.3	62	1000	--	--	--	--	
2014 Investigation														
SB-2		9	28-May-14	<0.0042	<0.0042	<0.0042	<0.0084	--	--	--	--	--	ND	--
Maximum Concentration				<0.3	<0.3	<0.3	<0.3	62	1000	--	--	--	--	
Residential Soil ESL				0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	
Tank 2 - Former UST at Corner of West Grand Avenue and Filbert Street at Loading Dock														
2014 Investigation														
SB-3		8	28-May-14	<0.0037	<0.0037	<0.0037	<0.0074	--	--	--	--	--	ND	--
Maximum Concentration				<0.0037	<0.0037	<0.0037	<0.0074	--	--	--	--	--	ND	--
Residential Soil ESL				0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
Tanks 4 and 5 - Former Heating Oil USTs														
Phase I Investigation - 1994														
B-5-9.5		9.5	20-Jul-94	--	--	--	--	--	--	37	<10	--	--	
B-6-13.5	(2,5,9,20,21)	13.5	19-Jul-94	0.45	0.58	0.9	0.28	<200	--	140	120	--	--	*(20,21) Pb = ND; TPHd = 2 mg/kg*
		Maximum Concentration		0.45	0.58	0.9	0.28	<200	--	140	120	--	--	TPHd = 2 mg/kg
		Residential Soil ESL		0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	TPHd = 10 0mg/kg
Tank 6 - Susptect UST on Filbert Outside Former Auto Repair Shop														
Phase II Investigation - 1994														
B-56-11.5		11.5	8-Nov-94	<0.03	<0.03	0.061	<0.03	20	3	--	--	--	--	
		Maximum Concentration		<0.03	<0.03	0.061	<0.03	20	3	--	--	--	--	--
		Residential Soil ESL		0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	
Western Area - Former Engine Room and Hazardous Materials Storage Area, Former Auto Repair Shop, Cabinet Shop, Paint Room and Garage														
B-7-11		11	21-Jul-94	--	--	--	--	--	--	<10	<1	--	--	
B-8-10	(3,5,22)	10	19-Jul-94	<0.01	0.066	0.2	0.21	<50	--	--	--	--	--	*(22) TPHd=ND; Pb=ND*
B-9-10	(23)	10	19-Jul-94	--	--	--	--	--	--	4400	4400	--	--	*(23) PCB = ND*
B-11-9.5	(1)	9.5	20-Jul-94	<0.1	0.52	1.1	1.7	170	--	--	--	--	--	
Phase II Investigation - 1994														
B-28-4		4	18-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	ND	
B-28-5.5		5.5	18-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	ND	ND	
B-28-10		10	18-Nov-94	<0.005	<0.005	<0.005	<0.005	0.4	<1	--	--	--	--	
B-29-6		6	18-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	(19)	ND	*(19) benzo(b)fluoranthene=0.33 mg/kg; fluoranthene=0.75 mg/kg; pyrene=0.41 mg/kg*
B-29-10		10	18-Nov-94	<0.005	<0.005	1.6	<0.005	370	120	--	--	--	--	
B-39s-4	(18)	4	15-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	ND	ND	
B-39s-7	(18)	7	15-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	ND	
B-30-3		3	18-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	ND	
B-30-5		5	18-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	ND	ND	
B-30-10		10	18-Nov-94	<0.30	<0.30	<0.30	<0.30	<1	<1	--	--	--	--	
B-31-1		1	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	40	<30	--	--	
B-31-2		2	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	30	<30	--	--	
B-31-5		5	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	ND	--	

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
B-31-10		10	11-Nov-94	0.72	0.79	1.5	0.74	330	10	40	<30	--	--	
B-32-2		2	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	53	46	--	ND	
B-32-5		5	10-Nov-94	<0.005	<0.005	<0.005	<0.005	0.3	<1	<30	<30	ND	ND	
B-32-9.5		9.5	10-Nov-94	<0.005	<0.005	<0.005	<0.005	0.6	<1	<30	<30	--	ND	
B-33-1		1	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	(12)	*(12) methylene chloride = 0.006 mg/kg*
B-33-2		2	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	--	(13)	*(13) methylene chloride = 0.007 mg/kg*
B-33-5		5	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	--	ND	
B-33-10		10	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	--	ND	
B-34-1		1	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	70	40	--	--	
B-34-2		2	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	--	
B-34-5		5	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	--	
B-34-10		10	10-Nov-94	<0.30	0.31	0.63	<0.30	170	82	<30	<30	--	--	
B-35-2		2	14-Nov-94	<0.005	<0.005	<0.005	<0.005	0.4	<1	<30	<30	--	--	
B-35-5		5	14-Nov-94	<0.005	<0.005	<0.005	<0.005	0.4	<1	<30	<30	--	--	
B-35-10		10	14-Nov-94	<0.5	<0.5	1.1	<0.5	300	51	790	690	--	--	
B-36-1		1	14-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	(14)	*(14) 1,1-DCB = 0.77 mg/kg; 1,4-DCB = 0.008 mg/kg*
B-36-2		2	14-Nov-94	<0.005	<0.005	0.013/0.03	<0.005	1.4	<1	<30	<30	--	(15)	*(15) 1,1-DCB = 0.052/0.053 mg/kg*
B-36-5		5	14-Nov-94	<0.005	<0.005	0.021	<0.005	0.6	<1	<30	<30	--	ND	
B-36-10		10	14-Nov-94	<0.005	<0.005	0.051/0.28	0.018/0.031	6.9	5	<30	<30	--	ND	
B-37-1		1	14-Nov-94	0.009/0.09	0.005/0.033	0.06/0.016	0.007/0.02	1.9	<1	160	120	--	(16)	*(16) cis-1,2-DCE = 0.31 mg/kg*
B-37-2		2	14-Nov-94	<0.005	<0.005	0.006/0.089	0.006	1.0	1	40	<30	--	(17)	*(17) methylene chloride = 0.006 mg/kg*
B-37-5		5	14-Nov-94	<0.005	<0.005	0.036	<0.005	0.3	<1	<10	<10	ND	ND	
B-37-10		10	14-Nov-94	0.12	0.61	0.95/0.78	<0.3	210	13	40	<30	--	ND	
B-49-8		8	7-Nov-94	--	--	--	--	--	--	30	<30	--	--	
B-50-12		12	7-Nov-94	0.27	1.7	1.5	<0.050	540	<50	--	--	--	--	
B-56-11.5		11.5	8-Nov-94	<0.03	<0.03	0.061	<0.03	20	3	--	--	--	--	
B-64-1		1	14-Nov-94	<0.005	<0.005	<0.005	<0.005	0.7	<1	<30	<30	--	--	
B-64-2		2	14-Nov-94	<0.005	<0.005	<0.005	0.006	1.0	<1	<30	<30	--	--	
B-64-5		5	14-Nov-94	<0.005	<0.005	<0.005	<0.005	0.4	<1	<30	<30	--	--	
B-64-10		10	14-Nov-94	<0.03	<0.03	0.031	<0.03	8	410	480	350	--	--	
2014 Investigation														
SB-4	(23)	8.5	28-May-14	<0.50	<0.50	<0.50	<1.0	--	--	--	--	(29)	(30)	*(23) PCB = ND; (29) Naphthalene = 0.072 mg/kg; (30)Isopropylbenzene 580 ug/kg; propylbenzene 670 ug/kg; para-isopropyl toluene 700 ug/kg*
Maximum Concentration				0.72	1.7	1.6	1.7	540	410	4400	4400	(19,29)	(13,14,16)	
Residential Soil ESL				0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
Northwest Area - Former Cleaning and Dyeing Works and Benzin Area														
Phase I Investigation - 1994														
B-16-9	(4,8,25)	9.0	21-Jul-94	<0.005	<0.005	0.2	0.17	--	--	--	--	--	(6)	*(6,25) Acetone=0.25 mg/kg; benzin = 2,500 mg/kg*
B-17-9.5	(1,7,10,11,20,24)	9.5	22-Jul-94	<0.5	<0.5	<0.5	2.4	1000	--	--	--	--	ND	*(20,24) Pb = ND; TPHd = 1,300 mg/kg; TPHbenzin = <1,000 mg/kg*
Phase II Investigation - 1994 (sample depths corrected using site's natural grade for borings located in loading dock area)														
B-41-1.5		10.5	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	8	--	--	--	--	
B-41-3		19	11-Nov-94	<0.3	<0.3	<0.3	0.37	260	330	--	--	--	--	
B-41-5		12	11-Nov-94	<1.0	<1.0	<1.0	<1.0	1600	320	--	--	--	--	
B-41-10		14	11-Nov-94	<0.005	<0.005	<0.005	<0.005	0.6	18	--	--	--	--	
B-42-1.5		9.5	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	--	
B-42-3		11	11-Nov-94	<0.1	<0.1	<0.1	0.14	130	7	--	--	--	--	
B-42-5		13	11-Nov-94	<0.5	<0.5	<0.5	<0.5	440	460	--	--	--	--	
B-42-10		18	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	28	--	--	--	--	
B-43-1.5		8.5	11-Nov-94	<0.005	<0.005	<0.005	1.1	720	82	--	--	--	--	
B-43-3		10	11-Nov-94	<0.3	<0.3	1.4	4.4	1900	1100	--	--	--	--	
B-43-5		12	11-Nov-94	<1.0	<1.0	1.3	7.2	1200	550	--	--	--	--	
B-43-10		17	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	12	--	--	--	--	
B-44-1		1	14-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	--	
B-44-2		2	14-Nov-94	<0.5	<0.5	<0.5	<0.5	240	49	--	--	--	--	
B-44-5		5	14-Nov-94	<0.005	<0.005	<0.005	0.01	3.1	17	--	--	--	--	
B-44-10		10	14-Nov-94	<3.0	<3.0	<3.0	<3.0	1600	850	--	--	--	--	
B-45-6		9	10-Nov-94	<0.1	<0.1	<0.1	0.15	95	16	--	--	--	--	
B-45-9.5		12.5	10-Nov-94	<0.3	<0.3	<0.3	0.98	350	32	--	--	--	--	
B-46-5		5	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	--	--	--	--	
B-46-10		10	11-Nov-94	<0.05	<0.05	<0.05	0.31	72	67	--	--	--	--	
2014 Investigation														
SB-1		4.5	30-May-14	<0.18	<0.18	<0.18	<0.36	--	--	--	--	--	ND	
	Maximum Concentration			<3.0	<3.0	1.4	7.2	1900	1100	--	--	--	(6,25)	*(6,25) Acetone=0.25 mg/kg; benzin = 2,500 mg/kg; TPHd = 1,300 mg/kg;*
	Residential Soil ESL			0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	*Acetone = 0.5 mg/kg; TPHd = 100 mg/kg*

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
Elevator Sump #1														
Phase I Investigation - 1994														
B-9-10	(23)	10	19-Jul-94	--	--	--	--	--	--	4400	4400	--	--	
Phase II Investigation - 1994														
B-33-1		1	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	(12)	*Methylene Chloride = 0.006 mg/kg*
B-33-2		2	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	--	(13)	*Methylene Chloride = 0.007 mg/kg*
B-33-5		5	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	--	ND	
B-33-10		10	11-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<10	<10	--	ND	
B-34-1		1	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	70	40	--	--	
B-34-2		2	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	--	
B-34-5		5	10-Nov-94	<0.005	<0.005	<0.005	<0.005	<0.2	<1	<30	<30	--	--	
B-34-10		10	10-Nov-94	<0.3	0.31	0.63	<0.3	170	82	<30	<30	--	--	
B-35-2		2	14-Nov-94	<0.005	<0.005	<0.005	<0.005	0.4	<1	<30	<30	--	--	
B-35-5		5	14-Nov-94	<0.005	<0.005	<0.005	<0.005	0.4	<1	<30	<30	--	--	
B-35-10		10	14-Nov-94	<0.5	<0.5	1.1	<0.5	300	51	790	690	--	--	
2015 Vault Removal														
Floor		7	24-Feb-15	--	--	--	--	--	--	--	--	--	--	*TPHho = 100 mg/kg*
Sidewall 1		11	24-Feb-15	--	--	--	--	--	--	--	--	--	--	*TPHho = ND <5.0 mg/kg*
Sidewall 2		13	24-Feb-15	--	--	--	--	--	--	--	--	--	--	*TPHho = 19 mg/kg*
		Maximum Concentration		<0.5	0.31	1.1	<0.5	300	82	4400	4400	--	(13)	*Methylene Chloride = 0.007 mg/kg*
		Residential Soil ESL		0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	*Methylene Chloride = 0.077 mg/kg*

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
Elevator Sump #2														
Phase I Investigation - 1994														
B-14-9.5	(23)	9.5	19-Jul-94	--	--	--	--	--	--	630	610	--	--	
Phase II Investigation - 1994														
B-38-1		1	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-38-5		5	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-38-10		10	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-39-0.5		0.5	10-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-39-1.5		1.5	10-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-39-5		5	10-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-39-10		10	10-Nov-94	--	--	--	--	--	--	470	400	--	--	
B-40-1		1	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-40-2		2	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-40-5		5	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
B-40-10		10	9-Nov-94	--	--	--	--	--	--	<30	<30	--	--	
2015 Vault Removal														
Sidewall	(31)	7	27-Jan-15	--	--	--	--	--	--	--	--	--	--	*(31) TPHho=ND<5.0 mg/kg; TPHd=ND<1.0mg/kg*
Floor	(32)	11	27-Jan-15	--	--	--	--	--	--	--	--	--	--	*(32) TPHho=29 mg/kg; TPHd=3.6mg/kg*
Floor 2	(33)	13	11-Nov-94	--	--	--	--	--	--	--	--	--	--	*(33) TPHho=ND<5.0 mg/kg*
Maximum Concentration				--	--	--	--	--	--	630	610	--	--	*TPHho=29; TPHd=3.6*
Residential Soil ESL				0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	*TPHho=100 mg/kg; TPHd=100 mg/kg*

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments
Clarifier Removal completed during 2015 Site Demolition														
Sidewall/Floor (EX-1)		12	3-Oct-94	--	--	<0.0005	<0.0005	2.6	--	--	--	--	--	*Cd<0.25 mg/kg; Cr<42 mg/kg; Pb<5.7 mg/kg; Ni<46 mg/kg; Zn<42 mg/kg*
Floor 2 (EX-2)		10	3-Oct-94	--	--	<0.0005	<0.0005	12	--	--	--	--	--	
East Limit Confirmation		4.5	3-Oct-94	--	--	<0.0005	<0.0005	<1.0	--	--	--	--	--	
South Limit Confirmation		4.5	3-Oct-94	--	--	<0.0005	<0.0005	1.5	--	--	--	--	--	
West Limit Confirmation		4.5	3-Oct-94	--	--	0.61	0.93	540	--	--	--	--	--	
West Excavation Floor (EX-3)		10	3-Oct-94	--	--	0.21	0.24	73	--	--	--	--	--	
West Limi tConfirmation2		4.5	3-Oct-94	--	--	0.15	0.16	74	--	--	--	--	--	
West Floor (EX-4)		10	3-Oct-94	--	--	<0.0005	0.25	47	--	--	--	--	--	
		Maximum Concentration		--	--	0.61	0.93	540	--	--	--	--	--	
		Residential Soil ESL		0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	*TPHho=100 mg/kg; TPHd=100 mg/kg Cd=12 mg/kg; Cr=75 mg/kg; Pb=80 mg/kg; Ni=15 mg/kg; Zn=600 mg/kg*
Off-Site, Upgradient Wells Installed by McCulley Frick and Gillman, Inc.														
MW-1-4-1	(27)	11.5	3-Oct-94	<0.01	<0.01	0.032	0.079	7.9	--	--	--	--	--	*(27) TPHd = 3.8 mg/kg; TPHmo = 14 mg/kg*
MW-2-3-2	(28)	14	3-Oct-94	<0.005	<0.005	<0.005	<0.005	<1.0	--	--	--	--	--	*(28) TPHd = ND; TPHmo = ND*
		Maximum Concentration		<0.01	<0.01	0.032	0.079	7.9	--	--	--	--	--	*(27) TPHd = 3.8 mg/kg; TPHmo = 14 mg/kg*
		Residential Soil ESL		0.044	2.9	3.3	2.3	100/500[a]	100	---	---	---	---	*TPHd = 100 mg/kg; TPHmo = 100 mg/kg*

Notes: Data compiled from Table 1, "Soil and Groundwater Investigation Report", Levine and Fricke, January 17, 1995

All compounds scanned are not included in the table. See notes for specific compounds. Phase I laboratory data sheets were not available for detection limits.

-- = not analyzed
ND = all analytes in laboratory method notdetected above laboratory reporting limits
< = not detected above laboratory reporting limit listed

Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020
TPHg- total petroleum hydrocarbons as gasoline by EPA Method 5030
TPHms - total petroleum hydrocarbons as mineral spirits by EPA Method 5030
Oil and Grease by Standard Method 5520 E
NPH - nonpolar hydrocarbons by Standard Method 5520 F

TABLE A-1
Analytical Results for Soil Samples - 1994-1995
2240 Filbert Street, Oakland California
(all results in milligrams per kilogram [mg/kg])

Sample ID	Analytical Footnote	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHms	Oil & Grease	NPH	SVOCs	VOCs	Comments

SVOCs - semivolatile organic compounds by EPA Method 8270
VOCs - volatile organic compounds by EPA Method 8240
Resdiential Soil ESL - Environmental Screening Levels (ESLs) established by SF Bay Regional Water Quality Control Boardb (SF Bay RWQCB, December 2013)

(a) ESL screening levels for shallow soil (<3 meters) and deep soil (>3 meters)
(1) The gasoline analysis showed a pattern not typical of gasoline.
(2) Reported limit elevated for gasoline due to hydrocarbon interference. The pattern in the analysis run was not typical of gasoline.
(3) Reported limit elevated for benzene and gasolien due to hydrocarbon interference. The pattern in the analysis run was not typical of gasoline.
(4) Sample contains nontarget compounds in 8240 analysis.
(5) Mineral spirits range hydrocarbons detected also.
(6) Acetone = 0.250 mg/kg.
(7) Reporting limit elevated for BTEX due to a dilution.
(8) Result for benzin in in the benzin and gasoline range but the pattern is not typical of either compound.
(9) The gasoline results shows a pattern not typical for gasoline. There may be a mixture.
(10) Results for diesel are in the mineral spirits range.
(11) Oil range hydrocarbons were also detected.
(12) Methylene chloride = 0.006 mg/kg.
(13) Methylene chloride = 0.007 mg/kg.
(14) 1,1-Dichlorobenzene = 0.770 mg/kg, 1,4-Dichlorobenzene = 0.008 mg/kg.
(15) 1,1-Dichlorobenzene = 0.052 and 0.053 mg/kg.
(16) Cis-1,2-dichloroethene = 0.310 mg/kg.
(17) Methylene chloride was = 0.006 mg/kg.
(18) Boring was terminated after reaching a 7-foot depth.
(19) Benzo(b)fluoranthene = 0.330 mg/kg;fluoranthene = 0.750 mg/kg; pyrene = 0.410 mg/kg.
(20) The sample was analyzed for organic lead. Pb = ND
(21) The sample was analyzed for TPH as diesel. TPHd = 2 mg/kg
(22) The sample was analyzed for TPH as diesel and organic lead. TPHd = ND; Pb = ND.
(23) The sample was analyzed for PCBs by EPA Method 8080. PCB = ND
(24) The sample was analyzed for TPH as benzin and diesel. TPH as benzin = <1,000 mg/kg; TPH as diesel = 1,300 mg/kg.
(25) The sample was analyzed for TPH as benzin. Benzin = 2,100 mg/kg.
(26) The sample was analyzed for TPH as diesel. TPHd = ND
(27) The sample was analyzed for TPH as diesel and motor oil. TPHd = 3.8 mg/kg ; TPHmo = 14 mg/kg.
(28) The sample was analyzed for TPH as diesel and motor oil. TPHd = ND; TPHmo = ND.
(29) The sample was analyzed for PAHs by EPA Method 8270C-SIM. Naphthalene was only PAH = 0.072 mg/kg.B69
(30) Isopropylbenzene = 580 ug/kg; propylbenzene = 670 ug/kg; para-isopropyl toluene = 700 ug/kg.
(31) The sample was analyzed for TPH as hydraulic oil and diesel. TPHho = ND <5.0 mg/kg; TPHd = ND <1.0 mg/kg
(32) The sample was analyzed for TPH as hydraulic oil and diesel. TPHho = 29 mg/kg; TPHd = 3.6 mg/kg
(33) The sample was analyzed for TPH as hydraulic oil. TPHho = ND <5.0 mg/kg

TABLE A-2
Analytical Results for Groundwater Samples
2240 Filbert Street, Oakland California
(all results in milligrams per liter [mg/L])

Sample ID	Analytical Footnote	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHd	TPHms	Oil & Grease	NPH	Organic Lead	Ethylene Glycol	SVOCs	VOCs	Comments
Tanks 1and 3 - Suspected Former USTs in Southeast Yard (West of Myrtle Street)																
Phase I Investigation - 1994																
B-22		18-Jul-94	--	--	--	--	--	--	--	--	--	--	<50	--	--	
B-23		18-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	--	--	--	--	<50	--	--	
B-24		18-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	--	--	--	--	<50	--	--	
B-25		19-Jul-94	0.0005	<0.0005	<0.0005	<0.002	0.1	<0.05	--	--	--	<0.2	--	--	--	
B-26		18-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	--	--	--	--	--	--	--	
B-27		18-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	--	--	--	--	<50	--	--	
Phase II Investigation - 1994																
B-47		15-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	--	--	--	--	--	--	
Maximum Concentration			0.0005	<0.0005	<0.0005	<0.002	0.1	<0.05	<0.05	--	--	<0.2	<50	--	--	
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	
Tank 2 - Former UST at Corner of West Grand Avenue and Filbert Street at Loading Dock																
Phase I Investigation - 1994																
B-3		20-Jul-94	--	--	--	--	--	<0.05	--	--	--	--	<50	--	--	
B-4	2	20-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	0.1	<0.05	--	--	--	--	<50	--	--	
Maximum Concentration			<0.0005	<0.0005	<0.0005	<0.002	0.1	<0.05	--	--	--	--	<50	--	--	
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	
Tanks 4 and 5 - Former Heating Oil USTs																
Phase I Investigation - 1994																
B-5	2	20-Jul-94	0.018	0.016	0.040	0.021	5.0	--	--	<1	<1	--	<50	--	--	
B-6	2,4, 16	19-Jul-94	0.093	0.006	0.049	0.029	5.9	<0.05	--	<1	<1	<0.2	--	ND	(3)	*(3) trans-1,2-DCE = 0.005 mg/L*
Maximum Concentration			0.093	0.016	0.049	0.029	5.9	<0.05	--	<1	<1	<0.2	<50	ND	(3)	*(3) trans-1,2-DCE = 0.005 mg/L*
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	*trans-1.2-DCE = 0.010 mg/l*
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	

TABLE A-2
Analytical Results for Groundwater Samples
2240 Filbert Street, Oakland California
(all results in milligrams per liter [mg/L])

Sample ID	Analytical Footnote	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHd	TPHms	Oil & Grease	NPH	Organic Lead	Ethylene Glycol	SVOCs	VOCs	Comments
Tank 6 - Susptect UST on Filbert Outside Former Auto Repair Shop																
Phase I Investigation - 1994																
B-56		8-Nov-94	0.016/0.010	0.0005	<0.0005	<0.002	0.3	--	0.1	<1	<1	--	--	--	(23)	*(23) 1,2-DCA=0.003 mg/L; cis-1,2-DCE=0.130 mg/L; trans-1,2-DCE=0.0005 mg/L; VC=0.034 mg/L.*
Maximum Concentration			0.016	0.0005	<0.0005	<0.002	0.3	--	0.1	<1	<1	--	--	--	(23)	*(23) 1,2-DCA=0.003 mg/L; cis-1,2-DCE=0.130 mg/L;*
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	
Western Area - Former Engine Room and Hazardous Materials Storage Area, Former Auto Repair Shop, Cabinet Shop, Paint Room and Garage																
Phase I Investigation - 1994																
B-7	2,7	21-Jul-94	<0.003	0.018	0.037	0.015	1.2	--	--	<1	<1	--	<50	--	--	
B-8	1,2	20-Jul-94	<0.01	<0.01	0.018	0.022	17	--	--	8	<1	--	<50	--	--	
B-9	24	19-Jul-94	--	--	--	--	--	--	--	270	230	--	--	--	--	
B-11		21-Jul-94	0.002	<0.0005	0.001	<0.002	0.3	--	--	<1	<1	<0.2	<50	(5)	(6)	*(5,6) bis(2-ehtylhexyl)phthalate = 0.27 mg/L; cis-1,2-DCE=0.003 mg/L;*
B-12	2,8,10	21-Jul-94	<0.005	<0.005	<0.005	<0.02	1.2	--	--	--	--	--	<50	--	--	
Phase II Investigation																
B-28		18-Nov-94	<0.005	<0.0005/0.0007	0.004	0.006	0.6	--	0.53	<1	<1	--	--	ND	ND	
B-29		18-Nov-94	0.0008	0.0006/0.002	0.010/0.008	0.01	1.4	--	1.2	<1	<1	--	--	ND	ND	
B-30		18-Nov-94	0.006/0.008	0.002	0.005/0.006	0.010/0.008	1.1	--	0.59	<1	<1	--	--	ND	ND	
B-31		18-Nov-94	0.11	0.011	0.035	0.06	5.6	--	4.5	<1	<1	--	--	(17)	ND	*(17) 2-methylnaphthalene = 0.018 mg/L;*
B-32		11-Nov-94	0.004/0.003	0.001	0.002/0.001	0.002	0.5	--	<0.05	<1	<1	--	--	ND	(18)	*(18) 1,2-DCA = 0.007 mg/L*
B-33		11-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	<1	<1	--	--	--	(19)	*(19) 1,2-DCA = 0.028 mg/L*
B-34		10-Nov-94	0.007	<0.0005	0.012	0.003	1.2	--	<0.05	<1	<1	--	--	--	--	
B-35		14-Nov-94	0.006	0.0007	0.0007	<0.002	0.6	--	0.2	<1	<1	--	--	--	--	
B-36		14-Nov-94	<0.0005	<0.0005	0.0005	<0.002	0.1	--	<0.05	<1	<1	--	--	--	ND	
B-37		14-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	0.07	--	<0.05	<1	<1	--	--	ND	(20)	*(20) 1,2-DCA = 0.002 mg/L*
B-49		7-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	<1	<1	--	--	--	--	
B-50		7-Nov-94	0.023/0.018	0.012/0.003	0.048/0.051	0.012/0.005	8.2	--	<3	<1	<1	--	--	--	ND	
B-51		7-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	<1	<1	--	--	--	--	
B-52		7-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	0.3	--	0.07	--	--	--	--	--	(21)	*(21) 1,2-DCA = 0.0008 mg/L*
B-53		7-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	--	--	--	--	--	--	
B-54		8-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	--	--	--	--	--	(22)	*(22) 1,2-DCA = 0.0006 mg/L*
B-55		8-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	--	--	--	--	--	--	
B-56		8-Nov-94	0.016/0.010	0.0005	<0.0005	<0.002	0.3	--	0.1	<1	<1	--	--	--	(23)	*(23) 1,2-DCA=0.003 mg/L; cis-1,2-DCE=0.130 mg/L; trans-1,2-DCE=0.0005 mg/L; VC=0.034 mg/L.*

TABLE A-2
Analytical Results for Groundwater Samples
2240 Filbert Street, Oakland California
(all results in milligrams per liter [mg/L])

Sample ID	Analytical Footnote	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHd	TPHms	Oil & Grease	NPH	Organic Lead	Ethylene Glycol	SVOCs	VOCs	Comments
B-57		8-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	0.5	--	1.6	--	--	--	--	--	--	
B-64		14-Nov-94	0.045	0.015	0.032	0.039	7.3	--	12	8	6	--	--	--	--	
Maximum Concentration			0.11	0.018	0.037	0.06	17	--	12	270	230	<0.2	<50	(5, 17)	(6,19,23)	*see values in comments above for SVOCs and VOCs*
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	
Former Cleaning and Dyeing Works and Benzin Area																
Phase I Investigation - 1994																
B-13	2,9,10	21-Jul-94	<0.01	<0.01	<0.01	<0.04	32	--	--	8	1	--	<50	--	--	
B-15	2	21-Jul-94	0.34	0.052	0.9	2.0	59	--	--	170	15	--	<50	--	--	
B-16	2,9,10,12,13,25	22-Jul-94	<0.005	<0.005	<0.005	<0.005	4.4	--	--	--	--	--	--	--	ND	*(25) TPHbenzin = ND*
B-17	1,10,12,14,15,25	22-Jul-94	<0.001	0.005	<0.001	0.041	6.3	3.8	--	--	--	<0.2	--	--	ND	*(25) TPHbenzin = ND*
B-18	1,2,10	22-Jul-94	<0.01	<0.01	0.022	0.024	10	--	--	--	--	--	<50	--	(11)	*(11) ethylbenzene = 0.021 mg/L*
B-19	26	22-Jul-94	<0.0005	<0.0005	0.003	0.009	--	--	--	--	--	--	--	ND	ND	*(26) TPHbenzin = 1.7 mg/kg (stet).*
B-20		22-Jul-94	--	--	--	--	--	--	--	--	--	--	<50	--	--	
B-21		22-Jul-94	--	--	--	--	--	--	--	--	--	--	<50	--	--	
Phase II Investigation																
B-41		11-Nov-94	<0.0005	<0.0005	0.003	0.005	2.9	--	16	--	--	--	--	--	--	
B-42		11-Nov-94	<0.005	<0.005	<0.005	0.022	14	--	44	--	--	--	--	--	--	
B-43		11-Nov-94	<0.010	0.015	<0.010	0.047	62	--	270	--	--	--	--	--	--	
B-44		14-Nov-94	0.004	0.005	<0.003	0.022	23	--	93	--	--	--	--	--	--	
B-45		11-Nov-94	<0.003	<0.003	0.035	0.01	4.9	--	41	--	--	--	--	--	--	
B-46		11-Nov-94	<0.001	<0.001	<0.001	0.011	4.7	--	5.1	--	--	--	--	--	--	
B-58		8-Nov-94	0.041	<0.010	0.013	<0.04	17	--	6.3	--	--	--	--	--	--	
B-59		9-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	--	--	--	--	--	--	
B-60		9-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	--	--	--	--	--	--	
B-61		10-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	0.3	--	0.07	--	--	--	--	--	--	
B-62		10-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	2.0	--	0.2	--	--	--	--	--	--	
B-63		10-Nov-94	0.062	0.013	<0.0005	0.047	9.3	--	5	--	--	--	--	--	--	
Maximum Concentration			0.34	0.052	0.9	2.0	62	3.8	270	170	15	<0.2	<50	ND	(11)	*(11) ethylbenzene = 0.021 mg/L*
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	

TABLE A-2
Analytical Results for Groundwater Samples
2240 Filbert Street, Oakland California
(all results in milligrams per liter [mg/L])

Sample ID	Analytical Footnote	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHd	TPHms	Oil & Grease	NPH	Organic Lead	Ethylene Glycol	SVOCs	VOCs	Comments
Elevator Sumps #1 and #2																
Phase I Investigation - 1994																
B-9	24	19-Jul-94	--	--	--	--	--	--	--	270	230	--	--	--	--	*(24) PCBs = ND*
B-10		19-Jul-94	--	--	--	--	--	--	--	<1	<1	--	<50	--	--	
B-13	2,9,10	21-Jul-94	<0.01	<0.01	<0.01	<0.04	32	--	--	8	1	--	<50	--	--	
B-14	24	20-Jul-94	--	--	--	--	--	--	--	2	1	--	--	--	--	*(24) PCBs = ND*
Phase II Investigation																
B-33		11-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	<1	<1	--	--	--	(19)	*(19) 1,2-DCA = 0.028 mg/L*
B-34		10-Nov-94	0.007	<0.0005	0.012	0.003	1.2	--	<0.05	<1	<1	--	--	--	--	
B-35		14-Nov-94	0.006	0.0007	0.0007	<0.002	0.6	--	0.2	<1	<1	--	--	--	--	
B-38		9-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	<1	<1	--	--	--	--	
B-39		11-Nov-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	--	<0.05	<1	<1	--	--	--	--	
B-40		10-Nov-94	<0.0005	<0.0005	<0.0005	0.016	13	--	31	15	2	--	--	--	--	
Maximum Concentration			0.007	0.0007	0.012	0.016	32	--	31	270	230	--	<50	--	(19)	
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	
Other Areas of Investigaiton																
B-1		20-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	<0.05	--	--	--	--	<50	--	--	
B-2	2	20-Jul-94	0.002	0.0009	0.002	<0.002	0.8	--	--	--	--	--	<50	--	--	
Maximum Concentration			0.002	0.0009	0.002	<0.002	0.8	<0.05	--	--	--	--	<50	--	--	
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	

TABLE A-2
Analytical Results for Groundwater Samples
2240 Filbert Street, Oakland California
(all results in milligrams per liter [mg/L])

Sample ID	Analytical Footnote	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHd	TPHms	Oil & Grease	NPH	Organic Lead	Ethylene Glycol	SVOCs	VOCs	Comments
Southeast Area - Corner of West Grand Avenue and Myrtle Street																
B-1		20-Jul-94	<0.0005	<0.0005	<0.0005	<0.002	<0.05	<0.05	--	--	--	--	<50	--	--	
B-2	2	20-Jul-94	0.002	0.0009	0.002	<0.002	0.8	--	--	--	--	--	<50	--	--	
MW-1	27,28	3-Oct-94	<0.0005	<0.0005	<0.0005	<0.0005	0.016	0.084	--	--	--	--	--	--	--	*(28) TPHmo = ND*
MW-2	27,28	3-Oct-94	0.0075	<0.0025	<0.0025	<0.0025	1.1	0.73	--	--	--	--	--	--	--	*(28) TPHmo = ND*
Maximum Concentration			0.0075	0.0009	0.002	<0.0025	1.1	0.73	--	--	--	--	<50	--	--	
Residential Groundwater ESL			0.001	0.040	0.030	0.020	0.100	0.100	0.100	---	---	0.0025	---	---	---	
GW to Residential Indoor Air ESL [(a)]			0.027	95	0.31	37	---	---	---	---	---	---	---	---	---	

Notes: Data compiled from Table 2, "Soil and Groundwater Investigation Report", Levine and Fricke, January 17, 1995

All compounds scanned are not included in the table. See notes for specific compounds. Phase I labortory data sheets were not available for detection limits.
Residential Groundwater ESL - Environmental Screening Levels (ESLs) established by the SF Bay Regional Water Quality Control Board (SF Bay RWQCB, December 2013)
(a) California Water Boards 2013 Tier 1 ESL (SF Bay RWQCB, December 2013) Table E-1 Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion - Residential (Fine-Coarse Mix Soil)
---: screening level not established
-- = not analyzyed
ND = all analytes in laboratory method notdetected above laboratory reporting limits
< = not detected above laboratory reporting limit listed

Benzene, toluene, ethylbenzene and total xylenes by EPA Method 8020
TPHg- total petroleum hydrocarbons as gasoline by EPA Method 5030
TPHd- total petroleum hydrocarbons as gasoline by EPA Method 3510
TPHms - total petroleum hydrocarbons as mineral spirits by GC-FID
Oil and Grease by Standard Method 5520 E
NPH - nonpolar hydrocarbons by Standard Method 5520 E
Organic lead by DHS
SVOCs - semivolatile organic compounds by EPA Method 8270
VOCs - volatile organic compounds by EPA Method 8240
Ethylene glycol by Modified EPA Method 8015

(1) Reporting limit elevated for benzene and toluene due to high levels of target compounds. Sample run at dilution.
(2) Pattern not typical of gasoline.
(3) Trans-1,2-dichlorethene detected at 0.005 mg/L.
(4) Sample contains nontarget compounds.
(5) Bis(2-ethylhexyl)phthalate = 0.270 mg/L; no other SVOCs detected.
(6) Cis-1,2-dichloroethene = 0.003 mg/L; no other SVOCs detected.
(7) Reporting limit elevated for benzene due to dilution.
(8) Reporting limitfor BTEX elevated due to dilution.
(9) Reporting limitfor BTEX elevated due to dilution.

TABLE A-2
Analytical Results for Groundwater Samples
2240 Filbert Street, Oakland California
(all results in milligrams per liter [mg/L])

Sample ID	Analytical Footnote	Sample Date	Benzene	Toluene	Ethyl-Benzene	Total Xylenes	TPHg	TPHd	TPHms	Oil & Grease	NPH	Organic Lead	Ethylene Glycol	SVOCs	VOCs	Comments

10) Light sheen of fuel on surface which resulted in nonmatching runs.
11) Ethylbenzene = 0.021 mg/L.
12) Reporting limit elevated for benzin due to a hydrocarbon interference.
13) Gasoline and benzin result from VOA with headspace.
14) Reporting limit for benzene and ethylbenzene elevated due to dilution.
15) Results for diesel are in the mineral spirits range.
16) Hydrocarbons in mineral spirits range also detected in TPHg analysis.
17) 2-Methylnaphthalene = 0.018 mg/L; naphthalene = 0.011 mg/L
18) 1,2-Dichloroethane = 0.0007 mg/L
19) 1,2-Dichloroethane = 0.028 mg/L
20) 1,2-Dichloroethane = 0.002 mg/L
21) 1,2-Dichloroethane = 0.0008 mg/L
22) 1,2-Dichloroethane = 0.0006 mg/L
23) 1,2-Dichloroethane = 0.003 mg/L; cis-1/2-dichloroehene = 0.13 mg/L; trans-1,2-dichloroethene = 0.0005 mg/L; vinyl chloride = 0.034 mg/L.
24) PCBs by EPA Method 8080 = ND
25) Sample analyzed for TPH as benzin = ND
26) Sample analyzed for TPH as benzin = 1.7 mg/kg (stet)
27) Lab noted sample contained weathered gasoline in the C6 to C12 range.
28) Sample analyzed for TPHmo = ND

TABLE A-3
Analytical Results for Soil Samples - Market Street Block
2240 Filbert Street, Oakland California

Sample Location	Sample ID	Sample Date	Sample Depth (ft. bgs)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	Lead (mg/kg)
B-1	B-1	2/8/2005	2.0	--	--	--	--	--	--	310
	B-1	2/8/2005	13.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.02	--
	B-1	2/8/2005	21.5	ND<2.0	ND<0.02	ND<0.02	ND<0.02	ND<0.04	ND<0.08	--
B-2	B-2	2/8/2005	4.0	--	--	--	--	--	--	ND<3.0
	B-2	2/8/2005	12.0	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.02	--
B-3	B-3	2/8/2005	4.0	--	--	--	--	--	--	3.6
	B-3	2/8/2005	11.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.02	--
	B-3	2/8/2005	13.0	310	ND<0.02	0.13	0.16	2.4	0.096	--
B-4	B-4	2/8/2005	4.0	--	--	--	--	--	--	ND<3.0
	B-4	2/8/2005	12.0	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.02	--
	B-4	2/8/2005	13.0	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.02	--
B-5	B-5	2/8/2005	4.0	--	--	--	--	--	--	ND<3.0
	B-5	2/8/2005	11.5	ND<0.5	ND<0.005	ND<0.005	ND<0.005	ND<0.010	ND<0.02	--
B-6	B-6	2/8/2005	2.0	--	--	--	--	--	--	3.2
B-7	B-7	2/8/2005	2.0	--	--	--	--	--	--	81
SB-5	SB-5, 1'	5/30/2014	1.0	--	--	--	--	--	--	94
SB-5	SB-5, 2.5	5/30/2014	2.5	--	--	--	--	--	--	9
SB-5	SB-5, 6'	5/30/2014	6.0	--	--	--	--	--	--	2.5
SB-5	SB-5, 9.5	5/30/2014	9.5	--	--	--	--	--	--	2.1
SB-6	SB-6, 0.5'	5/30/2014	0.5	--	--	--	--	--	--	4.3
SB-6	SB-6, 2.5	5/30/2014	2.5	--	--	--	--	--	--	5.1
SB-6	SB-6, 6'	5/30/2014	6.0	--	--	--	--	--	--	2.6
SB-6	SB-6, 9.5	5/30/2014	9.5	--	--	--	--	--	--	2.5
SB-7	SB-7, 1'	5/30/2014	1.0	--	--	--	--	--	--	4.4
SB-7	SB-7, 2.5	5/30/2014	2.5	--	--	--	--	--	--	8.8
SB-7	SB-7, 6'	5/30/2014	6.0	--	--	--	--	--	--	2
SB-7	SB-7, 9.5	5/30/2014	9.5	--	--	--	--	--	--	31
SB-8	SB-8, 1'	5/30/2014	1.0	--	--	--	--	--	--	14
SB-8	SB-8, 2.5	5/30/2014	2.5	--	--	--	--	--	--	16
SB-8	SB-8, 6'	5/30/2014	6.0	--	--	--	--	--	--	5.8
SB-8	SB-8, 9.5	5/30/2014	9.5	--	--	--	--	--	--	4.5
	Maximum Concentration			310	ND<0.02	0.13	0.16	2.4	0.096	310
	Residential Soil ESL			100/500[1]	0.044	2.9	3.3	2.3	0.023	80

Notes:
February 2004 data compiled from Table 1, "Report of Phase II Environmental Site Assessment", GRIBI Associates, March 18, 2005
Residential Soil ESL - Environmental Screening Levels (ESLs) established by the SF Bay Regional Water Quality Control Board (SF Bay RWQCB, December 2013)
(1) - ESLs for shallow soil (<3 meters) and deep soil (>3 meters)
MTBE: methyl-tertiary-butyl ether
mg/kg - micrograms per kilogram
ft. bgs - feet below ground surface
-- not analyzed
ND< - not detected above laboratory reporting limits listed
Benzene, toluene, ethylbenzene, total xylenes and MTBE by EPA Method 8020
TPHg- total petroleum hydrocarbons as gasoline by EPA Method 8015M
Lead - total lead by EPA Method 6010B

TABLE A-4

Analytical Results for Groundwater Grab Samples - Market Street Block

2240 Filbert Street, Oakland California

Sample Location	ID	Sample Depth (ft. bgs)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-Benzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
B-1	B-1-W	11.2	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<4.0
B-2	B-2-W	9.8	30,000	52	240	37	430	ND<4.0
B-3	B-3-W	9.6	110,000	ND<10	120	140	910	44
B-4	B-4-W	9.9	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<4.0
B-5	B-5-W	10.8	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<2.0	ND<4.0
Maximum Concentration			110,000	52	240	140	910	44
Residential Groundwater ESLs			100	1.0	40	30	20	5.0

Notes:

Samples collected February 28, 2005

Data compiled from Table 1, "Report of Phase II Environmental Site Assessment", GRIBI Associates, March 18, 2005

Residential Groundwater ESL - Environmental Screening Levels (ESLs) established by the SF Bay Regional Water Quality Control Board (SF Bay RWQCB, December 2013)

MTBE: methyl-tertiary-butyl ether

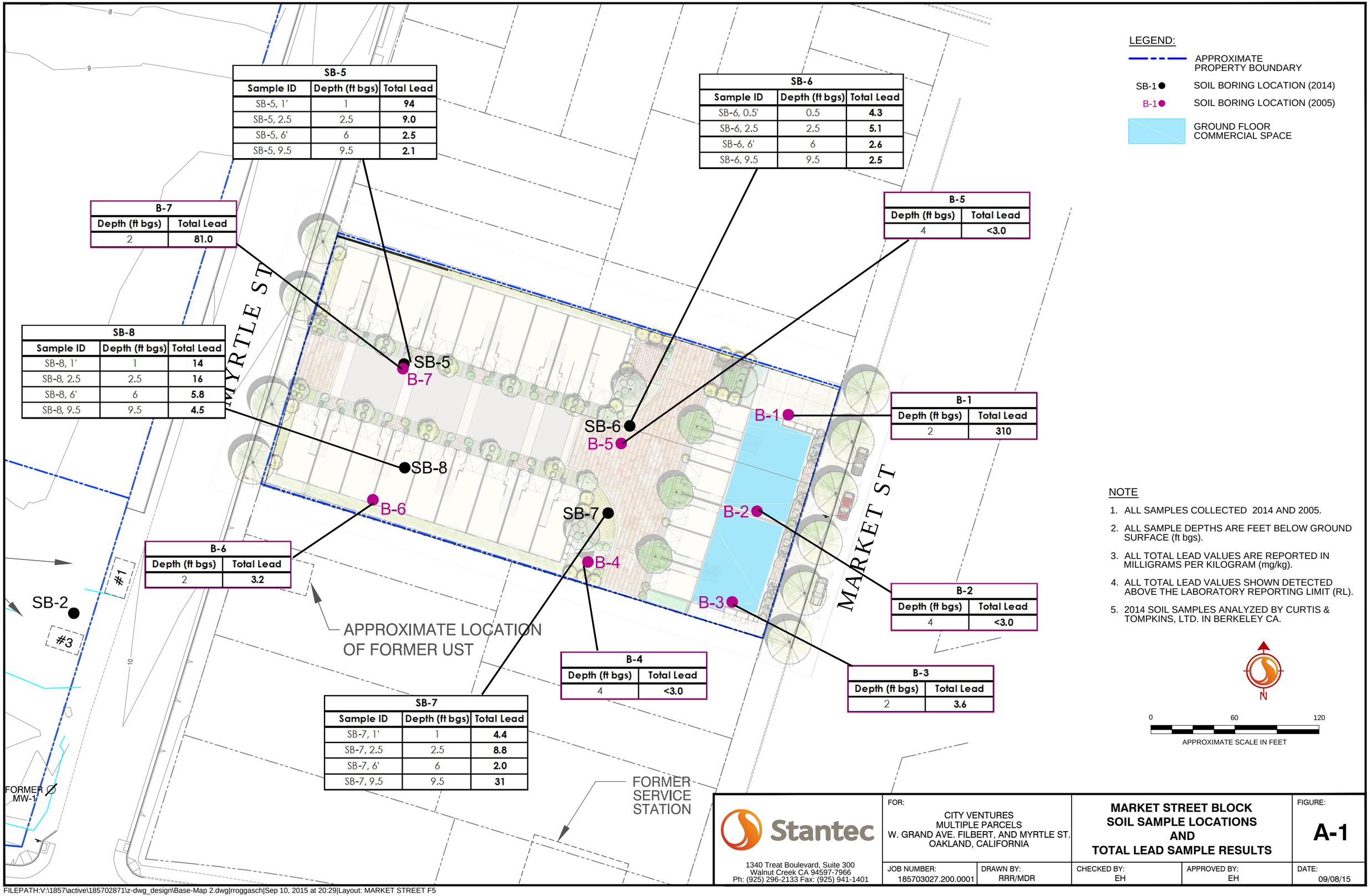
ug/L - micrograms per liter

ft. bgs - feet below ground surface

ND, - not detected above laboratory reporting limits listed

Benzene, toluene, ethylbenzene, total xylenes and MTBE by EPA Method 8020

TPHg- total petroleum hydrocarbons as gasoline by EPA Method 8015M



SB-5		
Sample ID	Depth (ft bgs)	Total Lead
SB-5, 1'	1	**94**
SB-5, 2.5	2.5	**9.0**
SB-5, 6'	6	**2.5**
SB-5, 9.5	9.5	**2.1**

SB-6		
Sample ID	Depth (ft bgs)	Total Lead
SB-6, 0.5'	0.5	**4.3**
SB-6, 2.5	2.5	**5.1**
SB-6, 6'	6	**2.6**
SB-6, 9.5	9.5	**2.5**

B-7	
Depth (ft bgs)	Total Lead
2	**81.0**

B-5	
Depth (ft bgs)	Total Lead
4	**<3.0**

SB-8		
Sample ID	Depth (ft bgs)	Total Lead
SB-8, 1'	1	**14**
SB-8, 2.5	2.5	**16**
SB-8, 6'	6	**5.8**
SB-8, 9.5	9.5	**4.5**

B-1	
Depth (ft bgs)	Total Lead
2	**310**

B-6	
Depth (ft bgs)	Total Lead
2	**3.2**

B-2	
Depth (ft bgs)	Total Lead
4	**<3.0**

B-4	
Depth (ft bgs)	Total Lead
4	**<3.0**

B-3	
Depth (ft bgs)	Total Lead
2	**3.6**

SB-7		
Sample ID	Depth (ft bgs)	Total Lead
SB-7, 1'	1	**4.4**
SB-7, 2.5	2.5	**8.8**
SB-7, 6'	6	**2.0**
SB-7, 9.5	9.5	**31**

NOTE

1. ALL SAMPLES COLLECTED 2014 AND 2005.
2. ALL SAMPLE DEPTHS ARE FEET BELOW GROUND SURFACE (ft bgs).
3. ALL TOTAL LEAD VALUES ARE REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg).
4. ALL TOTAL LEAD VALUES SHOWN DETECTED ABOVE THE LABORATORY REPORTING LIMIT (RL).
5. 2014 SOIL SAMPLES ANALYZED BY CURTIS & TOMPKINS, LTD. IN BERKELEY CA.

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

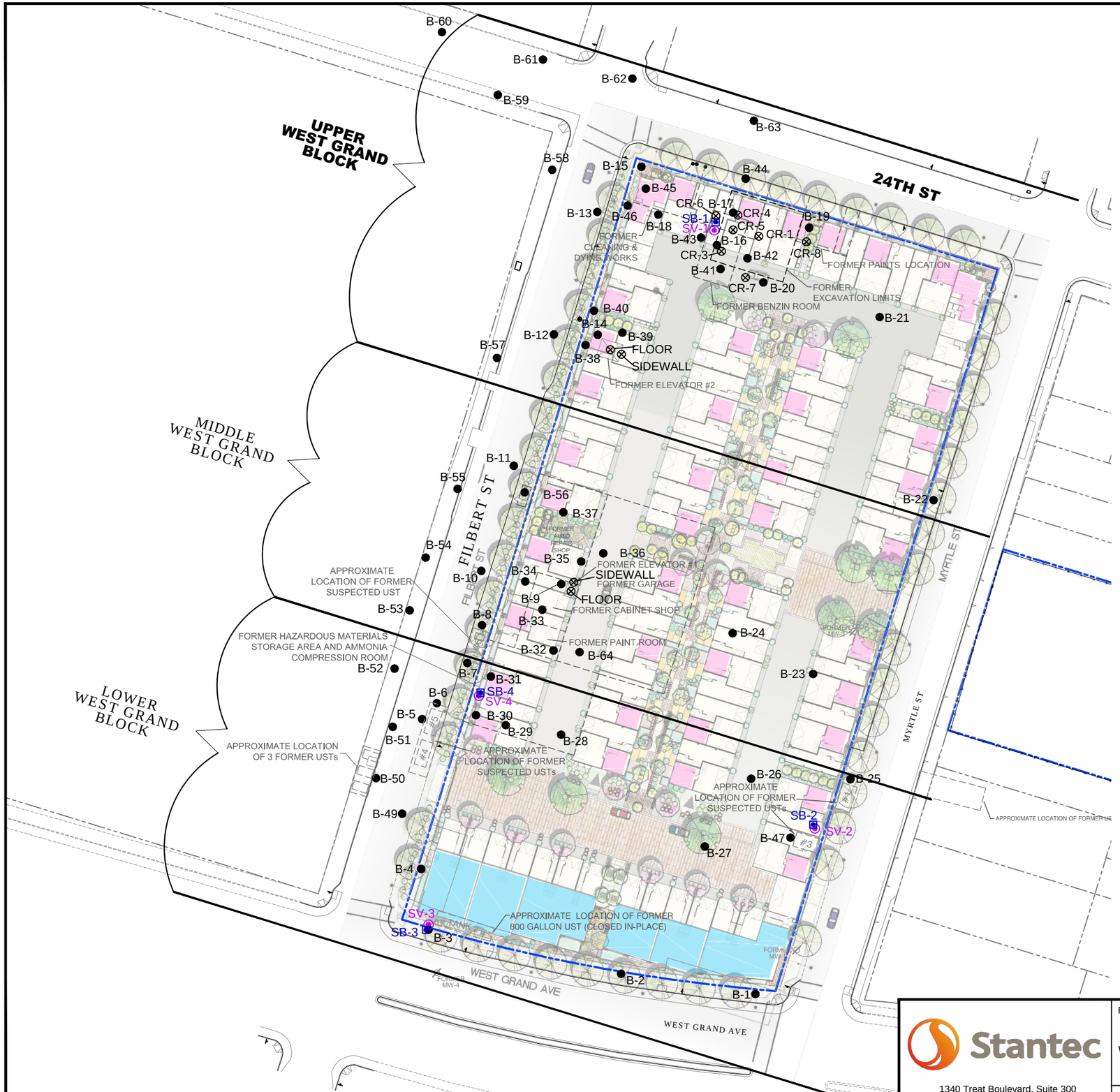
FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

MARKET STREET BLOCK
SOIL SAMPLE LOCATIONS
AND
TOTAL LEAD SAMPLE RESULTS

FIGURE: **A-1**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/08/15

FILEPATH:V:\1857\active\185702871\z-dwg_design\Base-Map 2.dwg|rroggasch|Sep 10, 2015 at 20:29|Layout: MARKET STREET F5



LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- B-1 ● SOIL BORING LOCATION (1994)
- SV-1 ◉ SOIL VAPOR SAMPLE LOCATION (2014)
- SB-1 ▣ SOIL BORING SAMPLE LOCATION (2014)
- SIDEWALL ⊗ SITE DEMOLITION/EXCAVATION SAMPLE LOCATION (2014)
- ⌀ APPROXIMATE LOCATION OF FORMER GROUNDWATER MONITORING WELL
- GROUND FLOOR COMMERCIAL SPACE
- GROUND FLOOR RESIDENTIAL SPACE

NOTES

1. SOIL AND GROUNDWATER SAMPLE RESULTS FOR UPPER SECTION ARE SHOWN ON FIGURES 6 AND 9 RESPECTIVELY.
2. SOIL AND GROUNDWATER SAMPLE RESULTS FOR MIDDLE SECTION ARE SHOWN ON FIGURES 7 AND 10 RESPECTIVELY.
3. SOIL AND GROUNDWATER SAMPLE RESULTS FOR LOWER SECTION ARE SHOWN ON FIGURES 8 AND 11 RESPECTIVELY.

N

0 70 140

APPROXIMATE SCALE IN FEET

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

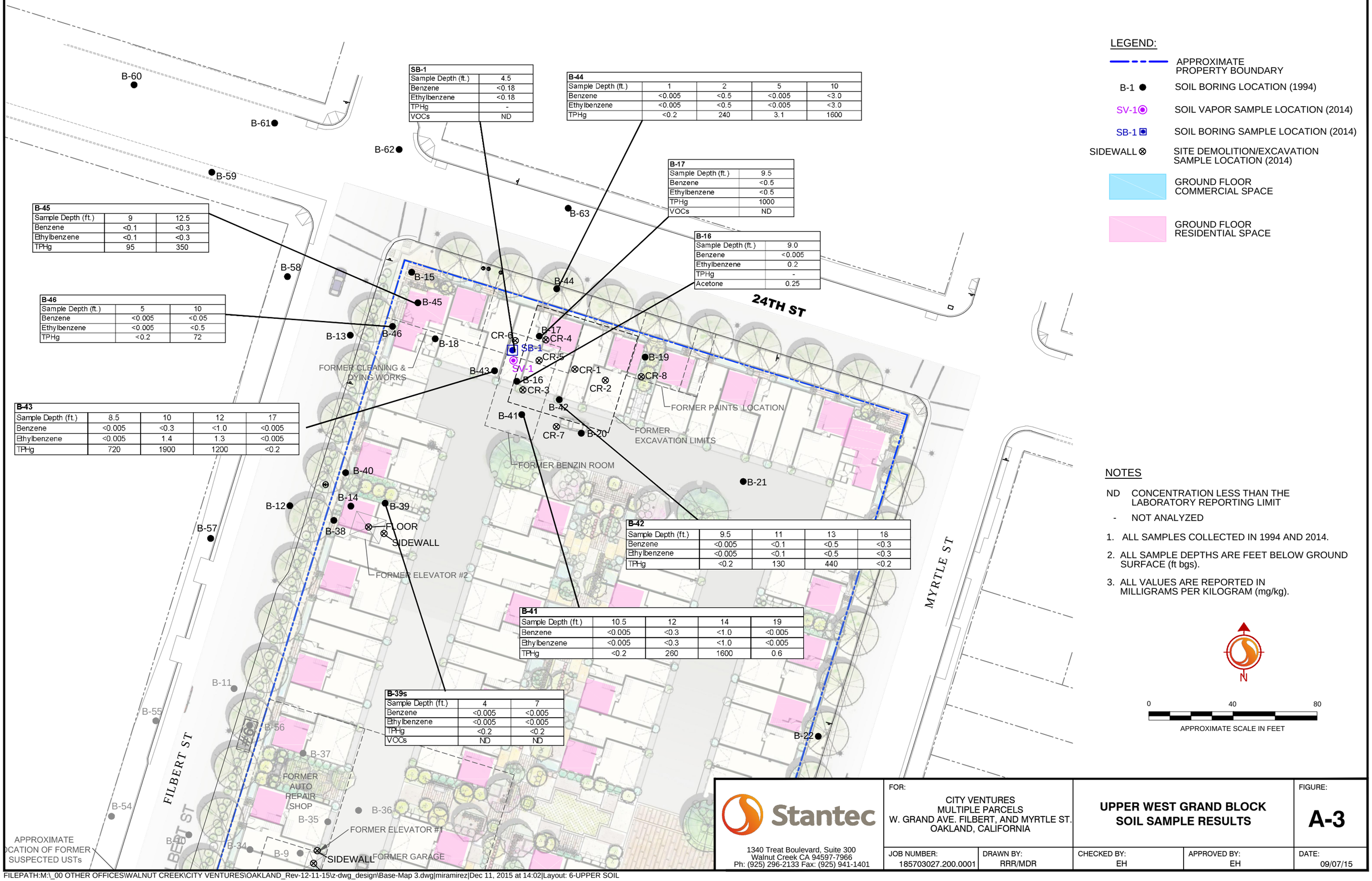
FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

SAMPLE LOCATIONS
WEST GRAND BLOCK

FIGURE: **A-2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15

FILEPATH:M:_00 OTHER OFFICES\WALNUT CREEK\CITY VENTURES\OAKLAND_Rev-12-11-15\z-dwg_design\Base-Map 4.dwg|miramirez|Dec 11, 2015 at 16:02|Layout: F4



SB-1	
Sample Depth (ft.)	4.5
Benzene	<0.18
Ethylbenzene	<0.18
TPHg	-
VOCs	ND

B-44				
Sample Depth (ft.)	1	2	5	10
Benzene	<0.005	<0.5	<0.005	<3.0
Ethylbenzene	<0.005	<0.5	<0.005	<3.0
TPHg	<0.2	240	3.1	1600

B-17	
Sample Depth (ft.)	9.5
Benzene	<0.5
Ethylbenzene	<0.5
TPHg	1000
VOCs	ND

B-16	
Sample Depth (ft.)	9.0
Benzene	<0.005
Ethylbenzene	0.2
TPHg	-
Acetone	0.25

B-45		
Sample Depth (ft.)	9	12.5
Benzene	<0.1	<0.3
Ethylbenzene	<0.1	<0.3
TPHg	95	350

B-46		
Sample Depth (ft.)	5	10
Benzene	<0.005	<0.05
Ethylbenzene	<0.005	<0.5
TPHg	<0.2	72

B-43				
Sample Depth (ft.)	8.5	10	12	17
Benzene	<0.005	<0.3	<1.0	<0.005
Ethylbenzene	<0.005	1.4	1.3	<0.005
TPHg	720	1900	1200	<0.2

B-42				
Sample Depth (ft.)	9.5	11	13	18
Benzene	<0.005	<0.1	<0.5	<0.3
Ethylbenzene	<0.005	<0.1	<0.5	<0.3
TPHg	<0.2	130	440	<0.2

B-41				
Sample Depth (ft.)	10.5	12	14	19
Benzene	<0.005	<0.3	<1.0	<0.005
Ethylbenzene	<0.005	<0.3	<1.0	<0.005
TPHg	<0.2	260	1600	0.6

B-39s		
Sample Depth (ft.)	4	7
Benzene	<0.005	<0.005
Ethylbenzene	<0.005	<0.005
TPHg	<0.2	<0.2
VOCs	ND	ND

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- B-1 ● SOIL BORING LOCATION (1994)
- SV-1 ◉ SOIL VAPOR SAMPLE LOCATION (2014)
- SB-1 ▣ SOIL BORING SAMPLE LOCATION (2014)
- SIDEWALL ⊗ SITE DEMOLITION/EXCAVATION SAMPLE LOCATION (2014)
- GROUND FLOOR COMMERCIAL SPACE
- GROUND FLOOR RESIDENTIAL SPACE

NOTES

ND CONCENTRATION LESS THAN THE LABORATORY REPORTING LIMIT

\- NOT ANALYZED

1. ALL SAMPLES COLLECTED IN 1994 AND 2014.
2. ALL SAMPLE DEPTHS ARE FEET BELOW GROUND SURFACE (ft bgs).
3. ALL VALUES ARE REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg).

N

0 40 80

APPROXIMATE SCALE IN FEET

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

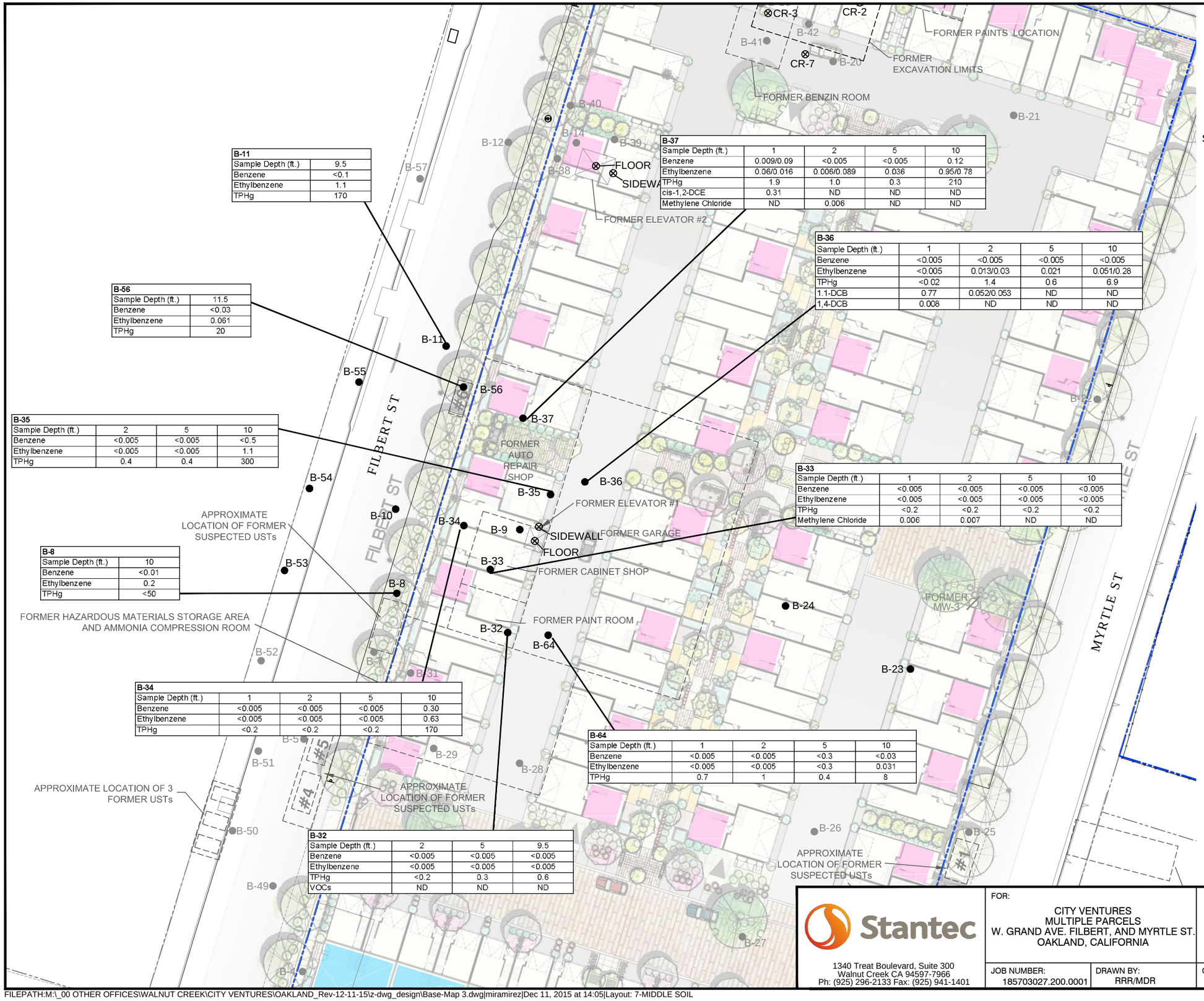
FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

UPPER WEST GRAND BLOCK SOIL SAMPLE RESULTS

FIGURE: **A-3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15

FILEPATH:M:_00 OTHER OFFICES\WALNUT CREEK\CITY VENTURES\OAKLAND_Rev-12-11-15\z-dwg_design\Base-Map 3.dwg|miramirez|Dec 11, 2015 at 14:02|Layout: 6-UPPER SOIL



B-11	
Sample Depth (ft.)	9.5
Benzene	<0.1
Ethylbenzene	1.1
TPHg	170

B-37				
Sample Depth (ft.)	1	2	5	10
Benzene	0.009/0.09	<0.005	<0.005	0.12
Ethylbenzene	0.06/0.016	0.006/0.089	0.036	0.95/0.78
TPHg	1.9	1.0	0.3	210
cis-1,2-DCE	0.31	ND	ND	ND
Methylene Chloride	ND	0.006	ND	ND

B-36				
Sample Depth (ft.)	1	2	5	10
Benzene	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	<0.005	0.013/0.03	0.021	0.051/0.28
TPHg	<0.02	1.4	0.6	6.9
1,1-DCB	0.77	0.052/0.053	ND	ND
1,4-DCB	0.008	ND	ND	ND

B-56	
Sample Depth (ft.)	11.5
Benzene	<0.03
Ethylbenzene	0.061
TPHg	20

B-35			
Sample Depth (ft.)	2	5	10
Benzene	<0.005	<0.005	<0.5
Ethylbenzene	<0.005	<0.005	1.1
TPHg	0.4	0.4	300

B-33				
Sample Depth (ft.)	1	2	5	10
Benzene	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	<0.005	<0.005	<0.005	<0.005
TPHg	<0.2	<0.2	<0.2	<0.2
Methylene Chloride	0.006	0.007	ND	ND

B-8	
Sample Depth (ft.)	10
Benzene	<0.01
Ethylbenzene	0.2
TPHg	<50

B-34				
Sample Depth (ft.)	1	2	5	10
Benzene	<0.005	<0.005	<0.005	0.30
Ethylbenzene	<0.005	<0.005	<0.005	0.63
TPHg	<0.2	<0.2	<0.2	170

B-64				
Sample Depth (ft.)	1	2	5	10
Benzene	<0.005	<0.005	<0.3	<0.03
Ethylbenzene	<0.005	<0.005	<0.3	0.031
TPHg	0.7	1	0.4	8

B-32			
Sample Depth (ft.)	2	5	9.5
Benzene	<0.005	<0.005	<0.005
Ethylbenzene	<0.005	<0.005	<0.005
TPHg	<0.2	0.3	0.6
VOCs	ND	ND	ND

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- B-1 ● SOIL BORING LOCATION (1994)
- SV-1◉ SOIL VAPOR SAMPLE LOCATION (2014)
- SIDEWALL ⊗ SITE DEMOLITION/EXCAVATION SAMPLE LOCATION (2014)
- ⌀ APPROXIMATE LOCATION OF FORMER GROUNDWATER MONITORING WELL
- GROUND FLOOR COMMERCIAL SPACE
- GROUND FLOOR RESIDENTIAL SPACE

NOTES

ND CONCENTRATION LESS THAN THE LABORATORY REPORTING LIMIT

\- NOT ANALYZED

1. ALL SAMPLES COLLECTED IN 1994 AND 2014.
2. ALL SAMPLE DEPTHS ARE FEET BELOW GROUND SURFACE (ft bgs).
3. ALL VALUES ARE REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg).

N

0 40 80

APPROXIMATE SCALE IN FEET

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

MIDDLE WEST GRAND BLOCK SOIL SAMPLE RESULTS

FIGURE: **A-4**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15

FILEPATH:M:_00 OTHER OFFICES\WALNUT CREEK\CITY VENTURES\OAKLAND_Rev-12-11-15\z-dwg_design\Base-Map 3.dwg|miramirez|Dec 11, 2015 at 14:05|Layout: 7-MIDDLE SOIL

B-31				
Sample Depth (ft.)	1	2	5	10
Benzene	<0.005	<0.005	<0.005	0.72
Ethylbenzene	<0.005	<0.005	<0.005	1.5
TPHg	<0.2	<0.2	<0.2	330

SB-4	
Sample Depth (ft.)	8.5
Benzene	<0.50
Ethylbenzene	<0.50
TPHg	-
Isopropylbenzene	0.58
propylbenzene	0.67
para-isopropyl toluen	0.7

B-29		
Sample Depth (ft.)	6	10
Benzene	<0.005	<0.005
Ethylbenzene	<0.005	1.6
TPHg	<0.2	370
VOCs	ND	-

B-28			
Sample Depth (ft.)	4	5.5	10
Benzene	<0.005	<0.005	<0.005
Ethylbenzene	<0.005	<0.005	<0.005
TPHg	<0.2	<0.2	0.4
VOCs	ND	ND	-

B-6	
Sample Depth (ft.)	13.5
Benzene	0.45
Ethylbenzene	0.9
TPHg	<200

B-26	
Sample Depth (ft.)	12.5
Benzene	<0.005
Ethylbenzene	<0.005
TPHg	<0.2

B-25	
Sample Depth (ft.)	13
Benzene	<0.005
Ethylbenzene	<0.005
TPHg	<0.2

B-50	
Sample Depth (ft.)	12
Benzene	0.27
Ethylbenzene	1.5
TPHg	540

SB-2	
Sample Depth (ft.)	9
Benzene	<0.0042
Ethylbenzene	<0.0042
TPHg	-
VOCs	ND

B-47			
Sample Depth (ft.)	3	5	10
Benzene	<0.005	<0.005	<0.3
Ethylbenzene	<0.005	<0.005	<0.3
TPHg	<0.2	0.3	62

MW-1	
Sample Depth (ft.)	11.5
Benzene	<0.01
Ethylbenzene	0.032
TPHg	7.9

SB-3	
Sample Depth (ft.)	8
Benzene	<0.0037
Ethylbenzene	<0.0037
TPHg	-
VOCs	ND

B-30			
Sample Depth (ft.)	3	5	10
Benzene	<0.005	<0.005	<0.30
Ethylbenzene	<0.005	<0.005	<0.30
TPHg	<0.2	<0.2	<1
VOCs	ND	ND	-

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- B-1 ● SOIL BORING LOCATION (1994)
- SV-1 ◉ SOIL VAPOR SAMPLE LOCATION (2014)
- SB-1 ▣ SOIL BORING SAMPLE LOCATION (2014)
- ⌀ APPROXIMATE LOCATION OF FORMER GROUNDWATER MONITORING WELL
- GROUND FLOOR COMMERCIAL SPACE
- GROUND FLOOR RESIDENTIAL SPACE

NOTES

ND CONCENTRATION LESS THAN THE LABORATORY REPORTING LIMIT

\- NOT ANALYZED

1. ALL SAMPLES COLLECTED IN 1994 AND 2014.
2. ALL SAMPLE DEPTHS ARE FEET BELOW GROUND SURFACE (ft bgs).
3. ALL VALUES ARE REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg).

N

0 40 80

APPROXIMATE SCALE IN FEET

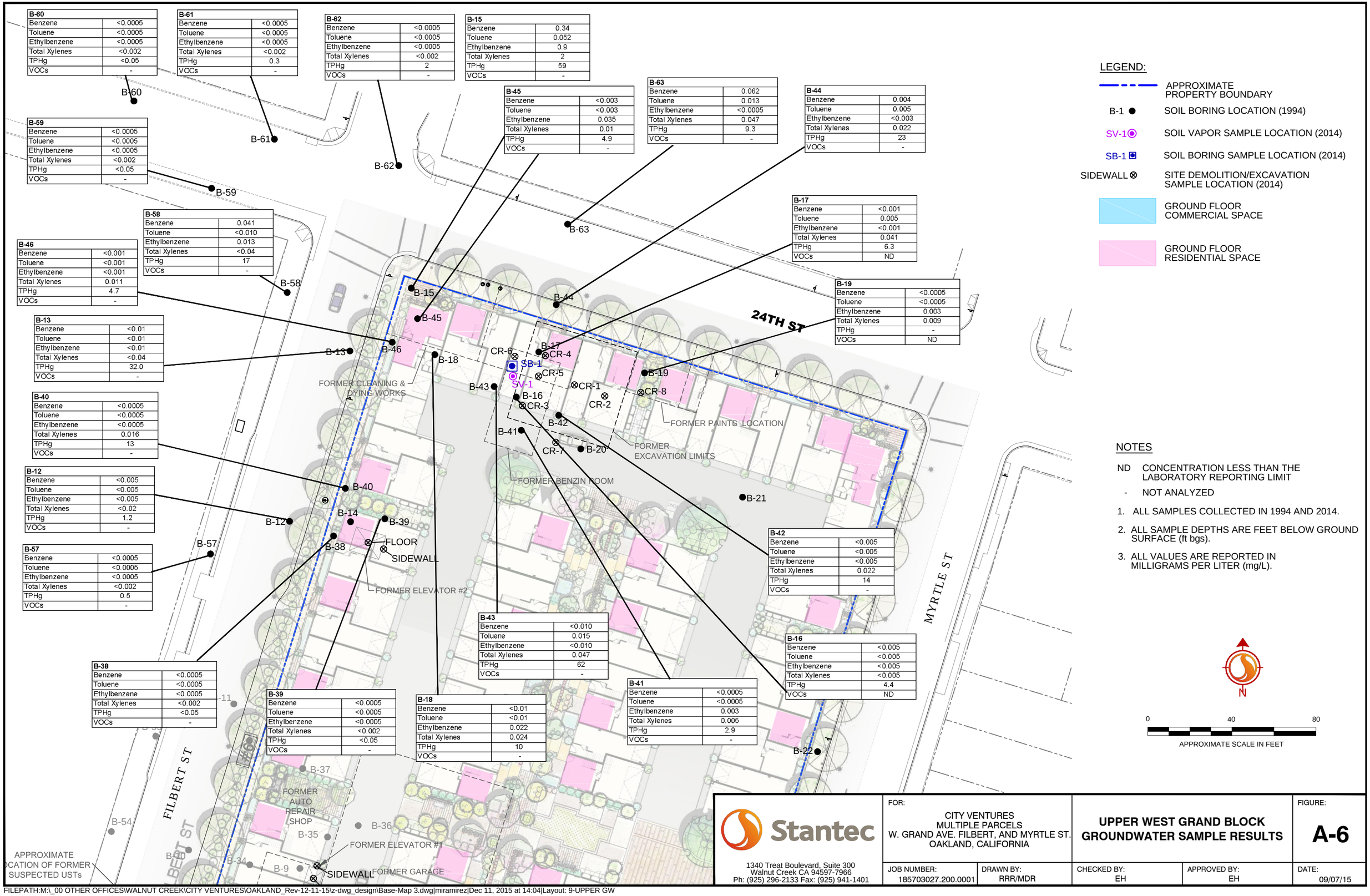
Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

LOWER WEST GRAND BLOCK SOIL SAMPLE RESULTS

FIGURE: **A-5**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15



NOTES

ND CONCENTRATION LESS THAN THE LABORATORY REPORTING LIMIT

\- NOT ANALYZED

1. ALL SAMPLES COLLECTED IN 1994 AND 2014.
2. ALL SAMPLE DEPTHS ARE FEET BELOW GROUND SURFACE (ft bgs).
3. ALL VALUES ARE REPORTED IN MILLIGRAMS PER LITER (mg/L).

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

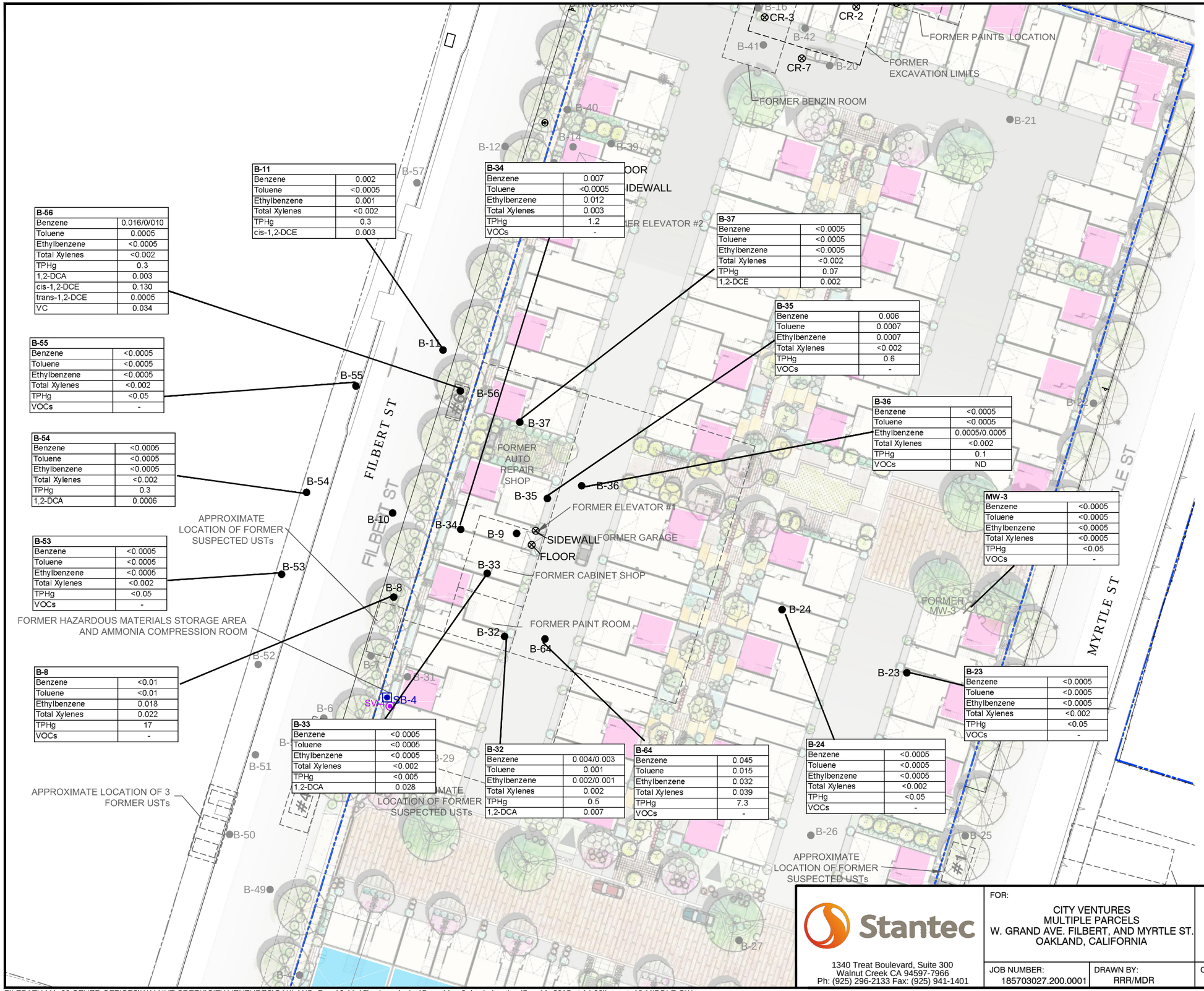
FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

UPPER WEST GRAND BLOCK GROUNDWATER SAMPLE RESULTS

FIGURE: **A-6**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15

FILEPATH:M:_00 OTHER OFFICES\WALNUT CREEK\CITY VENTURES\OAKLAND_Rev-12-11-15\z-dwg_design\Base-Map 3.dwg|miramirez|Dec 11, 2015 at 14:04|Layout: 9-UPPER GW



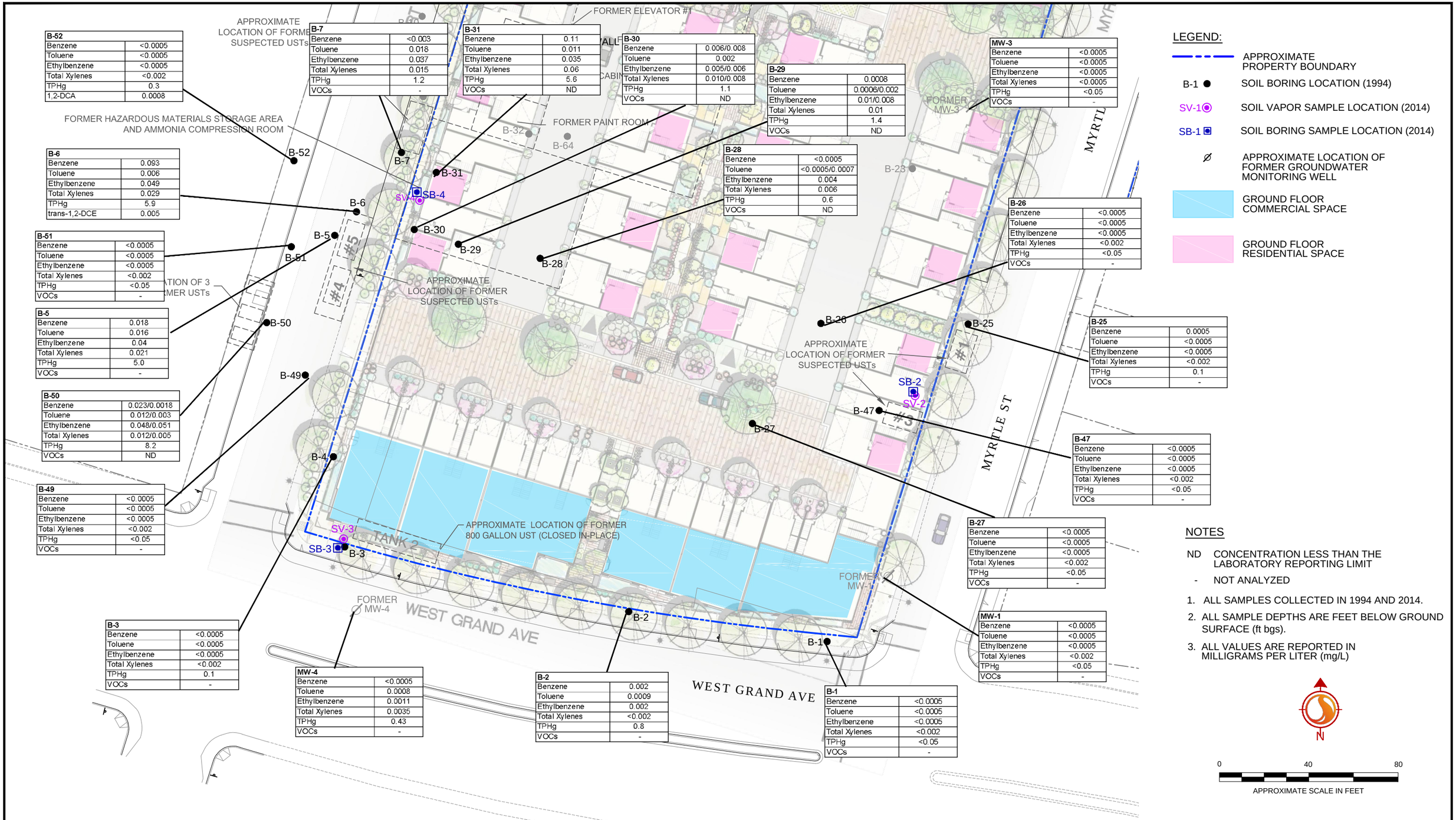
Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

MIDDLE WEST GRAND BLOCK GROUNDWATER SAMPLE RESULTS

FIGURE: A-7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15



B-52	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	0.3
1,2-DCA	0.0008

B-7	
Benzene	<0.003
Toluene	0.018
Ethylbenzene	0.037
Total Xylenes	0.015
TPHg	1.2
VOCs	-

B-31	
Benzene	0.11
Toluene	0.011
Ethylbenzene	0.035
Total Xylenes	0.06
TPHg	5.6
VOCs	ND

B-30	
Benzene	0.006/0.008
Toluene	0.002
Ethylbenzene	0.005/0.006
Total Xylenes	0.010/0.008
TPHg	1.1
VOCs	ND

B-29	
Benzene	0.0008
Toluene	0.0006/0.002
Ethylbenzene	0.01/0.008
Total Xylenes	0.01
TPHg	1.4
VOCs	ND

MW-3	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.0005
TPHg	<0.05
VOCs	-

B-28	
Benzene	<0.0005
Toluene	<0.0005/0.0007
Ethylbenzene	0.004
Total Xylenes	0.006
TPHg	0.6
VOCs	ND

B-6	
Benzene	0.093
Toluene	0.006
Ethylbenzene	0.049
Total Xylenes	0.029
TPHg	5.9
trans-1,2-DCE	0.005

B-26	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

B-51	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

B-5	
Benzene	0.018
Toluene	0.016
Ethylbenzene	0.04
Total Xylenes	0.021
TPHg	5.0
VOCs	-

B-25	
Benzene	0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	0.1
VOCs	-

B-50	
Benzene	0.023/0.0018
Toluene	0.012/0.003
Ethylbenzene	0.048/0.051
Total Xylenes	0.012/0.005
TPHg	8.2
VOCs	ND

B-47	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

B-49	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

B-27	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

B-3	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	0.1
VOCs	-

MW-1	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

MW-4	
Benzene	<0.0005
Toluene	0.0008
Ethylbenzene	0.0011
Total Xylenes	0.0035
TPHg	0.43
VOCs	-

B-2	
Benzene	0.002
Toluene	0.0009
Ethylbenzene	0.002
Total Xylenes	<0.002
TPHg	0.8
VOCs	-

B-1	
Benzene	<0.0005
Toluene	<0.0005
Ethylbenzene	<0.0005
Total Xylenes	<0.002
TPHg	<0.05
VOCs	-

LEGEND:

- APPROXIMATE PROPERTY BOUNDARY
- B-1 ● SOIL BORING LOCATION (1994)
- SV-1 ◉ SOIL VAPOR SAMPLE LOCATION (2014)
- SB-1 ◘ SOIL BORING SAMPLE LOCATION (2014)
- ⌀ APPROXIMATE LOCATION OF FORMER GROUNDWATER MONITORING WELL
- GROUND FLOOR COMMERCIAL SPACE
- GROUND FLOOR RESIDENTIAL SPACE

NOTES

ND CONCENTRATION LESS THAN THE LABORATORY REPORTING LIMIT

\- NOT ANALYZED

1. ALL SAMPLES COLLECTED IN 1994 AND 2014.
2. ALL SAMPLE DEPTHS ARE FEET BELOW GROUND SURFACE (ft bgs).
3. ALL VALUES ARE REPORTED IN MILLIGRAMS PER LITER (mg/L)

N

0 40 80

APPROXIMATE SCALE IN FEET

Stantec
1340 Treat Boulevard, Suite 300
Walnut Creek CA 94597-7966
Ph: (925) 296-2133 Fax: (925) 941-1401

FOR:
CITY VENTURES
MULTIPLE PARCELS
W. GRAND AVE. FILBERT, AND MYRTLE ST.
OAKLAND, CALIFORNIA

LOWER WEST GRAND BLOCK GROUNDWATER SAMPLE RESULTS

FIGURE: **A-8**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185703027.200.0001	RRR/MDR	EH	EH	09/07/15

9 June 2014

Ms. Eva Hey
Stantec Consulting
1340 Treat Boulevard, Suite 300
Walnut Creek, CA 94597

SUBJECT: DATA REPORT - Stantec Consulting Project # 185702820
City Ventures - Oakland / 2240 Filbert Street, Oakland, California

TEG Project # 40528E

Ms. Hey:

Please find enclosed a data report for the samples analyzed from the above referenced project for Stantec Consulting. The samples were analyzed on site in TEG's mobile laboratory. TEG conducted a total of 7 analyses on 7 soil vapor samples.

-- 7 analyses on soil vapor for volatile organic hydrocarbons by EPA method 8260B.

The results of the analyses are summarized in the enclosed tables. Applicable detection limits and calibration data are included in the tables.

TEG appreciates the opportunity to have provided analytical services to Stantec Consulting on this project. If you have any further questions relating to these data or report, please do not hesitate to contact us.

Sincerely,

Mark Jerpbak
Director, TEG-Northern California

teg

Stantec Project # 185702820
City Ventures Oakland
2240 Filbert Street, Oakland, California

TEG Project #40528E

EPA Method 8260B VOC Analyses of SOIL VAPOR in micrograms per cubic meter of Vapor

SAMPLE NUMBER:		Probe Blank	SV-1	SV-1	SV-1	SV-2	SV-2 dup	SV-3	SV-4
SAMPLE DEPTH (feet):			5.0	5.0	5.0	5.0	5.0	5.0	5.0
PURGE VOLUME:			1	3	10	3	3	3	3
COLLECTION DATE:		5/28/14	5/28/14	5/28/14	5/28/14	5/28/14	5/28/14	5/28/14	5/28/14
COLLECTION TIME:		09:16	10:05	10:27	10:49	11:27	11:27	12:15	12:40
DILUTION FACTOR (VOCs):		1	1	1	1	1	1	1	1
	RL								
Dichlorodifluoromethane	100	nd	17000	19000	19000	140	120	nd	110
Vinyl Chloride	100	nd	nd	nd	nd	nd	nd	nd	nd
Chloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
Trichlorofluoromethane	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloro-trifluoroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
Methylene Chloride	100	nd	nd	nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	100	nd	nd	nd	nd	nd	nd	nd	nd
Chloroform	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
Carbon Tetrachloride	100	nd	nd	nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
Benzene	80	nd	nd	nd	nd	nd	nd	nd	nd
Trichloroethene	100	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	200	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
Tetrachloroethene	100	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
m,p-Xylene	200	nd	nd	nd	nd	nd	nd	nd	nd
o-Xylene	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	100	nd	nd	nd	nd	nd	nd	nd	nd
1,1-Difluoroethane (leak check)	10000	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate Recovery (DBFM)		105%	106%	100%	92%	75%	93%	92%	96%
Surrogate Recovery (1,2-DCA-d4)		113%	103%	103%	100%	89%	106%	107%	109%
Surrogate Recovery (4-BFB)		107%	87%	81%	78%	109%	110%	111%	109%

'RL' Indicates reporting limit at a dilution factor of 1
'nd' Indicates not detected at listed reporting limits

Analyses performed in TEG-Northern California's lab
Analyses performed by: Mr. Lane Sharon

Stantec Project # 185702820
City Ventures Oakland
2240 Filbert Street, Oakland, California

TEG Project #40528E

CALIBRATION DATA - Calibration Check Compounds

	Vinyl Chloride	1,1 DCE	Chloroform	1,2 DCP	Toluene	Ethylbenzene
Midpoint	10.0	10.0	10.0	10.0	10.0	10.0
Continuing Calibration - Midpoint						
5/28/14	9.3	8.1	8.8	9.1	9.1	8.9
	93%	81%	88%	91%	91%	89%

APPENDIX B
DTSC INFORMATION ADVISORY: CLEAN IMPORTED FILL MATERIALS

Information Advisory
Clean Imported Fill Material

October 2001

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Executive Summary

This fact sheet has been prepared to ensure that inappropriate fill material is not introduced onto sensitive land use properties under the oversight of the DTSC or applicable regulatory authorities. Sensitive land use properties include those that contain facilities such as hospitals, homes, day care centers, and schools. This document only focuses on human health concerns and ecological issues are not addressed. It identifies those types of land use activities that may be appropriate when determining whether a site may be used as a fill material source area. It also provides guidelines for the appropriate types of analyses that should be performed relative to the former land use, and for the number of samples that should be collected and analyzed based on the estimated volume of fill material that will need to be used. The information provided in this fact sheet is not regulatory in nature, rather is to be used as a guide, and in most situations the final decision as to the acceptability of fill material for a sensitive land use property is made on a case-by-case basis by the appropriate regulatory agency.

Introduction

The use of imported fill material has recently come under scrutiny because of the instances where contaminated soil has been brought onto an otherwise clean site. However, there are currently no established standards in the statutes or regulations that address environmental requirements for imported fill material. Therefore, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to identify procedures that can be used to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material. Such sites include those that are undergoing site remediation, corrective action, and closure activities overseen by DTSC or the appropriate regulatory agency. These procedures may also apply to construction projects that will result in sensitive land uses. The intent of this fact sheet is to protect people who live on or otherwise use a sensitive land use property. By using this fact sheet as a guide, the reader will minimize the chance of introducing fill material that may result in potential risk to human health or the environment at some future time.

Overview

Both natural and manmade fill materials are used for a variety of purposes. Fill material properties are commonly controlled to meet the necessary site specific engineering specifications. Because most sites requiring fill material are located in or near urban areas, the fill materials are often obtained from construction projects that generate an excess of soil, and from demolition debris (asphalt, broken concrete, etc.). However, materials from those types of sites may or may not be appropriate, depending on the proposed use of the fill, and the quality of the assessment and/or mitigation measures, if necessary. Therefore, unless material from construction projects can be demonstrated to be free of contamination and/or appropriate for the proposed use, the use of that material as fill should be avoided.

Selecting Fill Material

In general, the fill source area should be located in nonindustrial areas, and not from sites undergoing an environmental cleanup. Nonindustrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous ma-

Potential Contaminants Based on the Fill Source Area

Fill Source:	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

**The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

Recommended Fill Material Sampling Schedule

Area of Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
Volume of Borrow Area Stockpile	**Samples per Volume**
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards +1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

terials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.

Documentation and Analysis

In order to minimize the potential of introducing contaminated fill material onto a site, it is necessary to verify through documentation that the fill source is appropriate and/or to have the fill material analyzed for potential contaminants based on the location and history of the source area. Fill documentation should include detailed information on the previous use of the land from where the fill is taken, whether an environmental site assessment was performed and its findings, and the results of any testing performed. It is recommended that any such documentation should be signed by an appropriately licensed (CA-registered) individual. If such documentation is not available or is inadequate, samples of the fill material should be chemically analyzed. Analysis of the fill material should be based on the source of the fill and knowledge of the prior land use.

Detectable amounts of compounds of concern within the fill material should be evaluated for risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual. If

metal analyses are performed, only those metals (CAM 17 / Title 22) to which risk levels have been assigned need to be evaluated. At present, the DTSC is working to establish California Screening Levels (CSL) to determine whether some compounds of concern pose a risk. Until such time as these CSL values are established, DTSC recommends that the DTSC PEA Guidance Manual or an equivalent process be referenced. This guidance may include the Regional Water Quality Control Board's (RWQCB) guidelines for reuse of non-hazardous petroleum hydrocarbon contaminated soil as applied to Total Petroleum Hydrocarbons (TPH) only. The RWQCB guidelines should not be used for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCS). In addition, a standard laboratory data package, including a summary of the QA/QC (Quality Assurance/Quality Control) sample results should also accompany all analytical reports.

When possible, representative samples should be collected at the borrow area while the potential fill material is still in place, and analyzed prior to removal from the borrow area. In addition to performing the appropriate analyses of the fill material, an appropriate number of samples should also be determined based on the approximate volume or area of soil to be used as fill material. The table above can be used as a guide to determine the number of samples needed to adequately characterize the fill material when sampled at the borrow site.

Alternative Sampling

A Phase I or PEA may be conducted prior to sampling to determine whether the borrow area may have been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with DTSC or appropriate regulatory agency. However, if it is not possible to analyze the fill material at the borrow area or determine that it is appropriate for use via a Phase I or PEA, it is recommended that one (1) sample per truckload be collected and analyzed for all compounds of concern to ensure that the imported soil is uncontaminated and acceptable. (See chart on Potential Contaminants Based on the Fill Source Area for appropriate analyses). This sampling frequency may be modified upon consultation with the DTSC or appropriate regulatory agency if all of the fill material is derived from a common borrow area. However, fill material that is not characterized at the borrow area will need to be stockpiled either on or off-site until the analyses have been completed. In addition, should contaminants exceeding acceptance criteria be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained, sampled and analyzed. Therefore, the DTSC recommends that all sampling and analyses should be completed prior to delivery to the site to ensure the soil is free of contamination, and to eliminate unnecessary transportation charges for unacceptable fill material.

Composite sampling for fill material characterization may or may not be appropriate, depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semivolatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides or PAH's from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.

When very large volumes of fill material are anticipated, or when larger areas are being considered as borrow areas, the DTSC recommends that a Phase I or PEA be conducted on the area to ensure that the borrow area has not been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with the DTSC.

For further information, call Richard Coffman, Ph.D., R.G., at (818) 551-2175.

APPENDIX C
BAAQMD CEQA AIR QUALITY GUIDELINES, CHAPTER 8

8. CONSTRUCTION-RELATED IMPACTS

Construction-related activities are those associated with the building of a single project or projects that are part of an adopted plan. Construction activities are typically short-term or temporary in duration; however, project-generated emissions could represent a significant impact with respect to air quality and/or global climate change. Construction-related activities generate criteria air pollutants including carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM_{10}, and $PM_{2.5}$); precursor emissions such as, reactive organic gases (ROG) and oxides of nitrogen (NO_X); and GHGs from exhaust, fugitive dust, and off-gas emissions. Sources of exhaust emissions could include on-road haul trucks, delivery trucks, worker commute motor vehicles, and off-road heavy-duty equipment. Sources of fugitive dust emissions could include construction-related activities such as soil disturbance, grading, and material hauling. Sources of off-gas emissions could include asphalt paving and the application of architectural coatings.

The recommendations provided in this chapter only apply to assessing and mitigating construction-related impacts for individual projects. Construction-related assumptions and project-specific information assumed in CEQA analyses should accompany the quantitative analysis described below. Refer to Chapter 9 for recommendations for assessing and mitigating construction-related impacts at the plan level.

8.1. CRITERIA AIR POLLUTANTS AND PRECURSORS

8.1.1. Significance Determination

Step 1: Comparison of Project Attributes with Screening Criteria

The first step in determining the significance of construction-related criteria air pollutants and precursors is to compare the attributes of the proposed project with the applicable screening criteria listed in Chapter 3. If all of the screening criteria are met, construction of the proposed project would result in a less-than-significant impact to air quality (this does not apply to toxic air contaminants). If not, than construction emissions should be quantified.

Step 2: Emissions Quantification

BAAQMD recommends using URBEMIS to quantify construction emissions for proposed land use development projects and the Roadway Construction Emissions Model (RoadMod) for proposed linear projects such as, new roadway, roadway widening, or pipeline installation. The most current URBEMIS (currently version 9.2.4) should be used for emission quantification. Table 8-3 outlines summary guidelines for using URBEMIS. Refer to Appendix B for detailed instructions for modeling construction-generated emissions using URBEMIS and RoadMod.

Step 3: Comparison of Unmitigated Emissions with Thresholds of Significance

Following quantification of project-generated construction-related emissions, the total average daily emissions of each criteria pollutant and precursor should be compared with the applicable thresholds. If construction-related emissions have been quantified using multiple models or model runs, sum the criteria air pollutants and precursor levels from each where said activities would

overlap. In cases where the exact timing of construction activities is not known, sum any phases that could overlap to be conservative. For fugitive dust significance, verify that the project incorporates all the *Basic Construction Mitigation Measures* for dust control in Table 8-1.

If daily average emissions of construction-related criteria air pollutants or precursors would not exceed any of the thresholds, the project would result in a less-than-significant impact to air quality. If daily average emissions of construction-related criteria air pollutants or precursors would exceed any applicable thresholds, the proposed project would result in a significant impact to air quality and would require mitigation measures for emission reductions.

Step 4: Mitigation and Emission Reductions

For all proposed projects, BAAQMD recommends the implementation of all *Basic Construction Mitigation Measures* (Table 8.1) whether or not construction-related emissions exceed applicable thresholds. In addition, all projects must implement any applicable air toxic control measures (ATCM). For example, projects that have the potential to disturb asbestos (from soil or building material) must comply with all the requirements of ARB's ATCM for Construction, Grading, Quarrying, and Surface Mining Operations. Only reduction measures included in the proposed project's description or recommended as mitigation in a CEQA-compliant environmental document can be included when quantifying mitigated emission levels. Refer to Appendix B for detailed instructions on how to use URBEMIS to quantify the effects of construction emissions mitigation measures.

Step 5: Comparison of Mitigated (Basic Mitigation) Emissions with Thresholds of Significance

Following quantification of project-generated construction-related emissions, compare the total average daily amount of mitigated (with implementation of *Basic Construction Mitigation Measures)* criteria air pollutants and precursors with the applicable thresholds. If the implementation of BAAQMD-recommended *Basic Construction Mitigation Measures* would reduce all construction-related criteria air pollutants and precursors to levels below the applicable thresholds, the impact to air quality would be less than significant. If emissions of any criteria air pollutant or precursor would exceed the applicable thresholds, the impact to air quality would be significant.

Step 6: Implement Additional Construction Mitigation Measures

BAAQMD recommends that all proposed projects, where construction-related emissions would exceed the applicable thresholds, implement the *Additional Construction Mitigation Measures* (Table 8-2). The methodology for quantifying reductions of fugitive PM dust, exhaust, and off gas emissions associated with the implementation of these mitigation measures is described in Appendix B.

Step 7: Comparison of Mitigated Emissions with Thresholds of Significance

Following quantification of project-generated construction-related emissions in accordance with the BAAQMD-recommended methods, compare the total average daily amount of mitigated (with *Additional Construction Mitigation Measures* implemented) criteria air pollutants and precursors with the applicable thresholds. If the implementation of additional mitigation measures would reduce all construction-related criteria air pollutants and precursors to levels below the applicable thresholds, the impact to air quality would be reduced to a less-than-significant level. If mitigated levels of any criteria air pollutant or precursor still exceed the applicable thresholds, the impact to air quality would remain significant and unavoidable.

8.1.2. Mitigating Criteria Air Pollutants and Precursors

Basic Construction Mitigation Measures

For all proposed projects, BAAQMD recommends implementing all the *Basic Construction Mitigation Measures,* listed in Table 8-1, to meet the best management practices threshold for fugitive dust, and whether or not construction-related emissions exceed applicable thresholds. Appendix B provides guidance on quantifying mitigated emission reductions using URBEMIS and RoadMod.

Table 8-1
Basic Construction Mitigation Measures Recommended for ALL Proposed Projects

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Additional Construction Mitigation Measures

BAAQMD recommends that all proposed projects, where construction-related emissions would exceed the applicable thresholds, implement the *Additional Construction Mitigation Measures* listed in Table 8-2. Appendix B contains more detailed guidance on emission reductions by source type (i.e., fugitive dust and exhaust) for quantification in URBEMIS and RoadMod.

Table 8-2
Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold

1. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
2. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
3. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
4. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
5. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
6. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
7. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.
8. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
9. Minimizing the idling time of diesel powered construction equipment to two minutes.
10. The project shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NO_X reduction and 45 percent PM reduction compared to the most recent ARB fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available.
11. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., Regulation 8, Rule 3: Architectural Coatings).
12. Requiring that all construction equipment, diesel trucks, and generators be equipped with Best Available Control Technology for emission reductions of NOx and PM.
13. Requiring all contractors use equipment that meets CARB's most recent certification standard for off-road heavy duty diesel engines.

Assessing Mitigation Measures

Table 8-3 provides a summary of BAAQMD recommendations for assessing construction-related impacts and mitigation measures using URBEMIS. See Appendix B for additional guidance.

Table 8-3
URBEMIS Guidance for Assessing Construction-Related Impacts

URBEMIS Construction Input Parameter	Guidance Principle
Land Use Type and Size	• Select most applicable land use type. • Use the appropriate land use units.
Construction Schedule	• Use the earliest possible commencement date(s) if project-specific information is unknown. • Overlap phases that will or have the potential to occur simultaneously. • Check the selected number of work days per week to ensure an accurate number of construction work days for each phase.
Demolition Phase	• Use a separate demolition URBEMIS run if the land use size to be developed differs from the land use size to be demolished. • Demolition fugitive dust is based on maximum daily volume of building to be demolished. • Demolition construction equipment is based on acres of land use to be demolished (in *Enter Land Use Data* module).
Site Grading Phase	• Site grading construction equipment is based on maximum daily acres disturbed. • Enter project-specific maximum daily acres disturbed if known, otherwise URBEMIS assumes the maximum daily amount of acres disturbed is 25 percent of total acres disturbed.
Site Grading Fugitive Dust	• Select the appropriate fugitive dust quantification methodology based on the amount and type of project-specific information available. • The more specific grading information available will result in more accurate quantification of PM emissions.
Asphalt Paving Phase	• Acres to be asphalt paved are based on land use type and size (in *Enter Land Use Data* module). • Asphalt paving construction equipment is based on total acres to be paved. • Assumes asphalt paving occurs at equal rate throughout phase. • Account for excess asphalt paving requirements of project beyond default assumptions by adjusting the acres to be paved.
Architectural Coatings	• Assumes architectural coating operations occur at equal rate throughout phase.
Basic Construction Mitigation Measures	• All projects must implement Basic Construction Mitigation Measures, including those below the construction screening levels. • Use surrogate URBEMIS mitigation to account for Basic Construction Mitigation Measures' emission reductions.
Additional Construction Mitigation Measures	• Projects with construction emissions that exceed the thresholds are required to implement Additional Construction Mitigation Measures. • Use surrogate URBEMIS mitigation to account for Additional Construction Mitigation Measures' emission reductions.
Other	• For all construction phases, the more specific information available will result in more accurate emissions quantification. • When a specific construction schedule is unknown, all phases that could potentially overlap should be added to calculate maximum daily emissions.

8.2. GREENHOUSE GASES

BAAQMD does not have an adopted *Threshold of Significance* for construction-related GHG emissions. However, lead agencies should quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction-generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. BAAQMD recommends using URBEMIS for proposed land use development projects and RoadMod for proposed projects that are linear in nature. Sources of construction-related GHGs include exhaust, for which the same detailed guidance as described for criteria air pollutants and precursors should be followed.

Lead agencies are encouraged to incorporate best management practices to reduce GHG emissions during construction, as applicable. Best management practices may include, but are not limited to: using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet; using local building materials of at least 10 percent; and recycling or reusing at least 50 percent of construction waste or demolition materials.

8.3. TOXIC AIR CONTAMINANTS

BAAQMD recommends that the same community risk and hazard *Threshold of Significance* for project operations be applied to construction. However, BAAQMD suggests associated impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors, as applicable. BAAQMD recommends that for construction projects that are less than one year duration, lead agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather than the full year.

BAAQMD has developed guidance for estimating risk and hazards impacts entitled *Recommended Methods for Screening and Modeling Local Risks and Hazards* which also includes recommendations for mitigation of significant risk and hazards impacts. BAAQMD has also developed a Construction Risk Calculator model that provides distances from a construction site, based on user-provided project date, where the risk impacts are estimated to be less than significant; sensitive receptors located within these distances would be considered to have potentially significant risk and hazards impacts from construction. The Construction Risk Calculator will be available on BAAQMD's website, http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES.aspx.

8.3.1. Diesel Particulate Matter

Construction-related activities could result in the generation of TACs, specifically diesel PM, from on-road haul trucks and off-road equipment exhaust emissions. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (ARB 2005). In addition, current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk. Additionally, the implementation of the *Basic Construction Mitigation Measures* (table 8-1), which is recommended for all proposed projects, would also reduce diesel PM exhaust emissions.

However, these variability issues associated with construction do not necessarily minimize the significance of possible impacts.

The analysis should disclose the following about construction-related activities:

1. Types of off-site receptors and their proximity to construction activity within approximately 1,000 feet;
2. Duration of construction period;
3. Quantity and types of diesel-powered equipment;
4. Number of hours equipment would be operated each day;
5. Location(s) of equipment use, distance to nearest off-site sensitive receptors, and orientation with respect to the predominant wind direction;
6. Location of equipment staging area; and
7. Amount of on-site diesel-generated $PM_{2.5}$ exhaust (assuming that all on-site diesel $PM_{2.5}$ exhaust is diesel PM) if mass emission levels from construction activity are estimated.

In cases where construction-generated emissions of diesel PM are anticipated to occur in close proximity to sensitive receptors for extended periods of time, lead agencies are encouraged to consult with BAAQMD.

8.3.2. Demolition and Renovation of Asbestos-Containing Materials

Demolition of existing buildings and structures would be subject to BAAQMD Regulation 11, Rule 2 (Asbestos Demolition, Renovation, and Manufacturing). BAAQMD Regulation 11, Rule 2 is intended to limit asbestos emissions from demolition or renovation of structures and the associated disturbance of asbestos-containing waste material generated or handled during these activities. The rule addresses the national emissions standards for asbestos along with some additional requirements. The rule requires the lead agency and its contractors to notify BAAQMD of any regulated renovation or demolition activity. This notification includes a description of structures and methods utilized to determine whether asbestos-containing materials are potentially present. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with BAAQMD Regulation 11, Rule 2, including specific requirements for surveying, notification, removal, and disposal of material containing asbestos. Therefore, projects that comply with Regulation 11, Rule 2 would ensure that asbestos-containing materials would be disposed of appropriately and safely. By complying with BAAQMD Regulation 11, Rule 2, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality.

Because BAAQMD Regulation 11, Rule 2 is in place, no further analysis about the demolition of asbestos-containing materials is needed in a CEQA document. BAAQMD does recommend that CEQA documents acknowledge and discuss BAAQMD Regulation 11, Rule 2 to support the public's understanding of this issue.

8.3.3. Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) was identified as a TAC in 1986 by ARB. NOA is located in many parts of California and is commonly associated with ultramafic rocks, according to the California Department of Geology's special publication titled Guidelines for Geologic Investigations of Naturally Occurring Asbestos in California. Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. Ultramafic rocks form in high-temperature environments well below the surface of the earth. By the time they are exposed at the surface by geologic uplift and erosion, ultramafic rocks may be partially to completely altered into a type of metamorphic rock called serpentinite.

Sometimes the metamorphic conditions are right for the formation of chrysotile asbestos or tremolite-actinolite asbestos in the bodies of these rocks, along their boundaries, or in the soil.

For individuals living in areas of NOA, there are many potential pathways for airborne exposure. Exposures to soil dust containing asbestos can occur under a variety of scenarios, including children playing in the dirt; dust raised from unpaved roads and driveways covered with crushed serpentine; grading and earth disturbance associated with construction activity; quarrying; gardening; and other human activities. For homes built on asbestos outcroppings, asbestos can be tracked into the home and can also enter as fibers suspended in the air. Once such fibers are indoors, they can be entrained into the air by normal household activities, such as vacuuming (as many respirable fibers will simply pass through vacuum cleaner bags).

People exposed to low levels of asbestos may be at elevated risk (e.g., above background rates) of lung cancer and mesothelioma. The risk is proportional to the cumulative inhaled dose (quantity of fibers), and also increases with the time since first exposure. Although there are a number of factors that influence the disease-causing potency of any given asbestos (such as fiber length and width, fiber type, and fiber chemistry), all forms are carcinogens.

8.3.4. Mitigating Naturally Occurring Asbestos

BAAQMD enforces CARB's ATCM which regulates NOA emissions from grading, quarrying, and surface mining operations at sites which contain ultramafic rock. The provisions that cover these operations are found specifically in the California Code of Regulations, Section 93105. The ATCM for Construction, Grading, Quarrying and Surface Mining Operations was signed into State law on July 22, 2002, and became effective in the SFBAAB on November 19, 2002. The purpose of this regulation is to reduce public exposure to NOA from construction and mining activities that emit or re-suspend dust which may contain NOA.

The ATCM requires regulated operations engaged in road construction and maintenance activities, construction and grading operations, and quarrying and surface mining operations in areas where NOA is likely to be found, to employ the best available dust mitigation measures to reduce and control dust emissions. Tables 8-1 and 8-2 list a number of dust mitigation measures for construction.

BAAQMD's NOA program requires that the applicable notification forms from the Air District's website be submitted by qualifying operations in accordance with the procedures detailed in the ATCM Inspection Guidelines Policies and Procedures. The lead agency should reference BAAQMD's ATCM Policies and Procedures to determine which NOA Notification Form is applicable to the proposed project (NOA Notification Forms).

Using the geologic map of the SFBAAB (Geologic Map), the lead agency should discuss whether a proposed project would be located in "areas moderately likely to contain NOA." If a project would not involve earth-disturbing construction activity in one of these areas or would not locate receptors in one of these areas then it can be assumed that the project would not have the potential to expose people to airborne asbestos particles.