Cleanup Action Plan

Sterling Realty Organization Bellevue Corner Property 10605 and 10619 NE 8th Street Bellevue, Washington

for Sterling Realty Organization Bellevue, Washington

December 22April 10, 2014



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ACRONYMS AND ABBREVIATIONS

μg/L micrograms per liter

AMSL above mean sea level

AS/SVE air sparging/soil vapor extraction

bgs below ground surface

BTETX benzene, toluene, ethylbenzene, and total xylenes

COC contaminant of concern

CAO cleanup action objective

CAP cleanup action plan

CFR Code of Federal Regulations

CLARC Cleanup Levels and Risk Calculation (Ecology)

CSM conceptual site model

CVOC chlorinated volatile organic compound

DCE dichloroethylene

DRPH diesel-range petroleum hydrocarbons

Ecology Washington State Department of Ecology

EIM Environmental Information Management

EMH Environmental Materials Handling

EPA U.S. Environmental Protection Agency

GRPH gasoline-range petroleum hydrocarbons

HAZWOPER Hazardous Waste Operations and Emergency Response

HCID hydrocarbon identification

mg/kg milligrams per kilogram

MTBE methyl tert-butyl ether

MTCA Washington State Model Toxics Control Act



NFA No Further Action

NWTPH Northwest Total Petroleum Hydrocarbon

O&M operations and maintenance

ORPH oil-range petroleum hydrocarbons

OSHA Occupational Safety and Health Administration

PCE tetrachloroethylene

PCS petroleum-contaminated soil

PQL Practical Quantitation Limit

RI/FS remedial investigation/feasibility study

ROW right-of-way

TCE trichloroethylene

TEE Terrestrial Ecological Evaluation

UST underground storage tank

VCP Voluntary Cleanup Program

VOC volatile organic compound

WAC Washington Administrative Code

EXECUTIVE SUMMARY

This cleanup action plan (CAP) was prepared for the Bellevue Corner Property (Property), located southeast of the intersection of NE 8th Street and 106th Avenue NE in Bellevue, Washington. Soil and groundwater at the Property have been contaminated by tetrachloroethene (PCE), and to a lesser extent other chlorinated volatile organics from a former dry cleaner that operated upgradient and across NE 8th Street from the Property. This upgradient site is referred to as the Thinker Toys property. An interim remedial action at the Thinker Toys property has been initiated by other parties with the installation and operation of an air sparging and soil vapor extraction (AS/SVE) system.

In addition to PCE, petroleum hydrocarbons have been detected in shallow soil at some locations on the Property, resulting from a former service station that operated on the Property. The shallow petroleum in soil represents residual contamination that remained after a soil cleanup was completed at the Property in the early 1990s. Except for low level detections of naphthalene and methyl tert-butyl ether (MTBE), petroleum-impacted groundwater has not been detected at the Property since the early 1990s cleanup.

This CAP includes an overview of the Property history and environmental conditions, description of the proposed cleanup action, proposed cleanup standards, cleanup action schedule, and institutional controls to be implemented following cleanup. This cleanup action is being performed to obtain a property-specific No Further Action (NFA) opinion from the Washington State Department of Ecology (Ecology), and is not intended to be a cleanup of any property other than the subject Property.

The Property consists of two of three parcels of land that are planned for redevelopment (Phase I) consisting of a high rise office building with up to seven levels of underground parking. The western parcel currently is a parking lot, and the central parcel houses a two-story building occupied by retail businesses. The eastern parcel is not part of the subject Property, but is part of the Phase I redevelopment.

The cleanup action will be implemented concurrently with Property redevelopment and consists df the following:

SOIL EXCAVATION AND OFF-SITE DISPOSAL. Soil will be excavated to the Property boundaries during construction to varying depths required for the Property development. Excavation at the Property will be limited to a depth equivalent to an elevation of 84 feet above mean sea level (AMSL) (about 70 feet below the ground surface [bgs]) except for localized excavations for elevator pits to elevation 82 feet AMSL (hereinafter "Planned Development Excavation"). A large number of soil samples will be collected/analyzed for petroleum and PCE during construction excavation to provide additional site characterization information and guidance regarding soil segregation/disposal.

-In order to minimize the potential for inadvertent effects on the aquifer, 1) construction dewatering will not be undertaken to lower groundwater levels in the regional aquifer except minor, localized dewatering for elevator pits/footings and 2) permanent drainage elements at the Property will be limited to no deeper than elevation 86 feet AMSL in the western and



northern portions of the Property and no deeper than 84 feet AMSL in the eastern and southern portions of the Property. The depth of permanent drainage elements will be above the regional aquifer as identified in March 2013. Based on the Planned Development Excavation and considering existingavailable data, it is anticipated that soil exceeding MTCA cleanup levels will be removed from the Property during construction. The remedial excavation will not extend beyond the limits of the construction excavation. Though unlikely, it is possible that PCE-contaminated soil will remain at the vertical limits (bottom) of the excavation in limited areas of the Property. If PCE-contaminated soil remains at the margins of the construction excavation, the garage's concrete bottom and sidewalls will eliminate the potential for direct contact with the impacted soil. Confirmation sampling will be completed at the final limits (base and sidewalls) of the excavation to document soil conditions. PCE- and petroleum-hydrocarbon contaminated soil will be excavated, segregated, and transported to off-site facilities for permitted disposal.

- GROUNDWATER CAPTURE SYSTEM. A passive groundwater capture system for contaminated perched groundwater flowing toward the Property from the upgradient source property will be installed. The groundwater capture system will be incorporated into the subsurface perimeter building wall drains and will be designed to minimize downward migration of contaminated, perched groundwater. Captured groundwater will be discharged to the sanitary sewer in accordance with the Model Toxics Control Act (MTCA) and a sewer Discharge Authorization. The wall drain system, including the portion that will also act as the contaminated groundwater capture system, will be designed to function for the life of the building.
- VAPOR BARRIER. A vapor barrier will be installed on the base slab and sidewalls of the building. The vapor barrier will be designed to minimize potential intrusion of volatile organic vapors into the building from soil and groundwater contamination that will remain in place adjacent to the subsurface building walls at the Property.
- INSTITUTIONAL CONTROLS. Institutional controls including maintenance requirements for engineered controls (groundwater capture system and vapor barrier) and restrictions on groundwater use at the Property will be documented in an environmental covenantevaluated and considered.

An Environmental Materials Handling Plan (EMH Plan) will be presented in a separate document. The EMH Plan will provide procedures to excavate, manage and dispose contaminated soil that will be removed from the Property and discuss collection and analysis of characterization/compliance soil samples during the cleanup action. Procedures for managing and discharging stormwater and groundwater during construction that may be contaminated with PCE also will be discussed.

Construction of the Phase I redevelopment, and the concurrent cleanup action, is anticipated in the next 1 to 5 years. Following construction, cleanup actions will be documented in a cleanup action report and periodic compliance monitoring reports. A Post-Construction Environmental Management Plan will present procedures for monitoring and maintaining the engineered controls at the Property. A C-and conducting post-cleanup-compliance Ggroundwater Mmonitoring Plan also will be prepared.

1.0 INTRODUCTION

This report presents the Cleanup Action Plan (CAP) for the Bellevue Corner Property located at 10605 and 10619 NE 8th Street in Bellevue, Washington. The Bellevue Corner Property (Property) is owned by Sterling Realty Organization (SRO) and consists of the two western parcels of a 3-parcel property that will be redeveloped. The location of the Property is shown on Figure 1. Boundaries of the Property are shown relative to surrounding properties and physical features on Figure 2. This document was prepared in accordance with our proposal for CAP preparation dated August 6, 2013 (GeoEngineers, 2013a) and agreement with SRO dated October 26, 2012.

This CAP is intended to satisfy Washington State Department of Ecology's (Ecology) Voluntary Cleanup Program (VCP) requirements and the Model Toxics Control Act (MTCA, Washington Administrative Code [WAC] 173-340). SRO submitted a VCP application to Ecology along with a Draft Remedial Investigation and Feasibility Study (RI/FS) report (GeoEngineers, 2013b) for the Property on December 30, 2013. Ecology accepted SRO's VCP application, completing and signing the VCP Agreement on January 14, 2014. The Facility/Site Number for the Property is 5569973, and the VCP Project Number for the Property is NW2817.

This CAP describes implementation of the cleanup action that was selected based on the FS. SRO's objective is to obtain a property-specific No Further Action (NFA) determination for the Property by conducting a MTCA-compliant cleanup action during construction of a multistory commercial building with up to seven levels of underground parking.

On the basis of data compiled and presented in the RI/FS (Finaled on December 16, 2014), soll and groundwater in portions of the Property are contaminated by tetrachloroethene (PCE) and associated chlorinated volatile organic compounds (CVOCs), including trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2-DCE). The sole-source of the PCE and associated compounds has been identified as a former dry-cleaner that operated from 1976 through 1986 at 10610 NE 8th Street, directly north of the Property and across NE 8th Street (Figure 2). This source property is referred to as the (former) Thinker Toys property. PCE and TCE are present in soil at concentrations exceeding MTCA cleanup levels in portions of the SRO Property at depths ranging from approximately 12 to 65 feet below ground surface (bgs). Samples from shallow, perched groundwater encountered from approximately 25 to 35 feet bgs beneath some portions of the Property also contained PCE and TCE at concentrations exceeding MTCA cleanup levels.

Residual concentrations of petroleum hydrocarbons exceeding MTCA Method A cleanup levels are present in shallow soil in <u>a limited some</u> areas on the Property, resulting from releases at a service station that operated there from 1958 to 1991. A partial cleanup of petroleum-contaminated soil was performed in 1991 and 1992 during underground storage tank (UST) removal activities.

SPECIAL NOTE: GeoEngineers, Inc. (GeoEngineers) did not conduct any of the field studies or explorations that are summarized in this document. Rather, GeoEngineers has included in this CAP a summary of information and data obtained from multiple historic environmental reports prepared by other consultants for the Property and adjacent properties. These previous reports were reviewed and assessed for completeness and consistency and deemed adequate to sufficiently characterize the Property. Any historic data that was considered to be non-defensible, incomplete,



or not applicable to the Property were not included in this report. Information and data from these reports was used by GeoEngineers to prepare the RI/FS (GeoEngineers, 2013b), and this CAP. A list of environmental reports that were prepared by others for the Property and vicinity is presented at the end of this document (References, Section 10).

1.1. Statement of Objective

The objectives of this document are to:

- Summarize the results of the RI/FS.
- Present proposed cleanup requirements for the property, including cleanup levels and points of compliance.
- Present the proposed cleanup action, to be completed concurrently with Property redevelopment, to address soil and groundwater contaminated by PCE and TCE exceeding MTCA cleanup levels, and soil contaminated by petroleum hydrocarbons exceeding MTCA cleanup levels.
- Present the proposed cleanup action on the Property to address potential vapor intrusion into the planned building.

1.2. Project Description and Future Land Use

It is anticipated that the two parcels that make up the Property, and the adjacent parcel to the east (10635 NE 8th Street, tax parcel 154410-0215), will be redeveloped within 1 to 5 years with a high-rise commercial building including up to seven levels of underground parking. These three combined parcels are referred to as the Phase I development property. This land use is consistent with City of Bellevue zoning for the Property. A conceptual design of the redevelopment is shown on Figure 3. The two adjacent parcels to the south that are owned by SRO, 606 and 620 106th Avenue NE (tax parcels 154410-0214 and -0217), also are planned for similar redevelopment in the next 5 to 10 years with high-rise commercial buildings (Phase II and III development properties).

The planned Phase I development includes:

- A lot-line-to-lot line excavation with maximum depths equal to elevation 84_above mean sea level (AMSL) (approximately 70 feet bgs) to accommodate the building foundation and underground parking.
- Limited excavations for elevator pits to approximately elevation 82 (approximately 72 feet bgs).
- Shored excavation using a combination of soil nails and soldier piles.

1.3. Roles and Relationships of Involved Parties

The Rockefeller Group (Rockefeller) has an option for a ground lease with SRO has submitted plans to develop the Bellevue Corner Property and the east-adjacent parcel (Phase I development) for Administrative Design Review by City of Bellevue. SRO, or another DRockefeller will developer, will develop and maintain the Property and improvements while SRO will retain ownership of the land. Phase I development plans are being prepared for Rockefeller by the architecture firm NBBJ. Design details for the development and elements of the cleanup action including the contaminated

groundwater capture system and the vapor barrier will be mutually agreed upon by the Developer and Property Owner (SRO) and included in the project plans and specifications. Reckefeller has retained Golder Associates (geotechnical engineering and environmental consultant), Coughlip Porter Lundeen (civil engineering), and Sellen Construction (General Contractor) to provide services during planning and construction of the proposed development. GeoEngineers has been retained by SRO to provide environmental services during development planning and construction. The PCE source property, known as the Thinker Toys property, is owned by BV Holdings, LLC. Consultants hired by BV Holdings collected data which was used for this analysis and is provided in this CAP. Roles and responsibilities of the involved parties are presented in Table 1.

2.0 BACKGROUND

The following sections summarize information presented in the RI/FS regarding current and historical land use, environmental setting, investigations performed on the Property and nearby properties, cleanup actions completed or in process, and the Conceptual Site Model.

2.1. Current and Historical Land Use

The Bellevue Corner Property is owned by SRO and consists of King County tax parcels 154410-0221 (10605 NE 8^{th} Street) and 154410-0216 (10619 NE 8^{th} Street) (Figure 2). The Property does not include adjacent rights-of-way (ROW). Gravel- and asphalt-paved parking lots, a wood and masonry building with retail businesses and perimeter landscaping are present on the Property.

The Property is primarily surrounded by office buildings, retail businesses, and parking lots. According to the City of Bellevue's zoning map, the Property and adjacent properties are zoned Downtown-Office (DNTNO-1 and DNTNO-2) (City of Bellevue, 2013). This zoning eliminates the possibility of ground floor residential uses and therefore reduces potential residential exposure to contaminants of concern including volatile organic compound (VOC) soil vapors.

2.1.1. 10605 NE 8th Street, Parcel 154410-0221 (Property)

The parcel southeast of the intersection of NE 8th Street and 106th Street (10605 NE 8th Street, Parcel 154410-0221) was undeveloped until 1958, when a retail gasoline station was constructed on the parcel. The original service station had several underground storage tanks (-USTs) for fuel and waste oil, a drywell, vehicle hoists, pump islands etc. The parcel was redeveloped in 1969 as a Union 76 Unocal station and retail gasoline sales and automotive repair activities continued on the Property until 1991 when the station was demolished. Theseveral USTs, product lines, associated equipment and 500 cubic yards of soil were removed during the first phase of excavation in 1991. Following demolition—A second phase of excavation was performed at the Property in April 1992 and an additional 1.500—cubic yards of petroleum-contaminated soil (PCS) were removed. Chemical analysis of soil samples obtained from the final limits of the remedial excavations did not detect petroleum contaminants at concentrations exceeding cleanup levels, 1,500 cubic yards of petroleum contaminated soil (PCS) were removed from the parcel during a remedial cleanup action (EMCON Northwest, 1992). Subsequently, an opinion of No Further Action regarding the cleanup status for petroleum hydrocarbons on the parcel was issued by the Washington State Department of Ecology (Ecology, 1992).



2.1.2. 10619 NE 8th Street and 10635 NE 8th Street, Parcels 154410-0216 (Property) and 154410-0215 (east-adjacent parcel)

Before 1953, these parcels were part of a nine acre-parcel that was occupied by the Cheriton Fruit Gardens. In 1963, the existing retail building was constructed on these parcels. Tenants have included a music store, furniture store, women's apparel store, automotive parts store, insurance agency, and travel agency. The basic features and land use of the parcels have remained unchanged since 1963.

2.1.3. 10610 NE 8th Street Thinker Toys (PCE Source Property)

This 0.3 acre parcel was initially developed in 1955 as a retail gasoline station and automotive repair facility. In 1968, the station was removed and replaced with a new retail gasoline station that operated until 1976. Between 1976 and 1986, a One-Hour Martinizing dry cleaning facility operated at the property. Between 1986 and 2007 the property was occupied by small retail businesses, including the Thinker Toys store. In 2007, the remaining structures were demolished and the property was paved and developed as a private parking lot (Sound Earth Strategies, Inc., 2011).

This property has been identified as the sole source of the chlorinated solvents (PCE and associated compounds) that have contaminated soil and groundwater on the Bellevue Corner Property. As discussed in the RI/FS, soil and groundwater investigations to delineate contamination on the Property and on the adjacent Thinker Toys property have demonstrated how CVOCs released at the 10610 NE 8th Street property migrated passively with groundwater to the Bellevue Corner Property.

2.1.4. Additional Surrounding Properties

Properties to the south (Phase II and Phase III future redevelopment properties) are owned by SRO and house a Barnes and Noble bookstore and a Mars Hill Church. These properties were farmland prior to being developed. The bookstore building was constructed in 1957 as a bowling alley. The church building was originally constructed in 1961 as a theater. Parking areas were initially paved in 1963.

The parcel west of the Property across 106th Avenue NE is occupied by a Bank of America branch that includes a building and an asphalt-paved parking lot.

2.2. Remedial Investigation Summary

Multiple environmental studies and cleanups have been performed on the Property and adjacent properties from 1991 to 2011. A summary of selected information and data from these studies is presented in this section. Detailed information regarding these studies is presented in the RI/FS (GeoEngineers, 2013b).

2.2.1. Environmental Setting

This section presents an overview of the environmental setting for the Property and surrounding area. Ground surface elevations at the Property range from approximately 153 to 165 feet AMSL. Ground surface slopes gently toward the south (King County iMAP, 2011). Lake Bellevue is located

approximately 0.75 miles northeast of the Property. Lake Washington is located approximately 0.75 miles southwest.

The City of Seattle provides the main source of potable water for the City of Bellevue. The water is obtained from surface water from the Cascade Mountains (City of Bellevue 2005). Current water supply wells within the City of Bellevue serve less than 50 people a day on average and are located more than one mile from the Property. There are no designated aquifer recharge areas within one mile of the Property. Because of the availability of the municipal water supply in the vicinity of the Property, there is clearly a low probability that this aquifer would be used as a potable water source.

2.2.1.1. PROPERTY GEOLOGY

Previous investigations on and adjacent to the Property encountered approximately 5 to 7 feet of fill material consisting of loose to medium dense silty sand with gravel. Fill is expected to be thicker in areas where USTs and petroleum-contaminated soil were removed during cleanup actions in the early 1990s. Below the fill material, the Property is underlain by Vashon Till (Pacific NW Geologic Mapping, 2007), a unit of dense to very dense glacially compacted, poorly sorted and locally cemented silt, sand, gravel, and cobbles with localized sand-rich zones (Figure 4). The glacial till typically extends to depths of 35 to 40 feet bgs. Two- to 5-foot thick sand-rich zones within the glacial till were encountered at depths of about 20 to 30 feet. Shallow, perched groundwater is associated with these sand-rich zones. The glacial till is underlain by the more permeable sand and gravelly-sand deposits of the Vashon Advance Outwash. Outwash extends to depths of approximately 75 to 90 feet bgs (Terra Associates, 2008). Dense, silty sand to sandy silt was encountered beneath the Advance Outwash in the deepest explorations that extend to 101.5 feet

2.2.1.2. PROPERTY HYDROGEOLOGY

Two water-bearing zones were identified beneath the Property during previous investigations. A shallow, discontinuous, perched water-bearing zone associated with sandy lenses within the Vashon Till was encountered from approximately 20 to 30 feet bgs. Seven shallow wells at the Property are screened in this perched water-bearing zone. Based on May 2010 groundwater depth measurements in these wells and shallow upgradient wells located on the Thinker Toys property, perched groundwater is inferred to flow to the south with a horizontal gradient of 0.046 feet per foot. Other groundwater data suggest a southwesterly component to groundwater flow on a seasonal basis. Depth to groundwater and groundwater elevations in monitoring wells on the Property are presented in Table 2. Perched groundwater elevation contours and inferred groundwater flow direction in May 2010 are shown on Figure 5.

A deeper regional aquifer is located in the lower portions of the underlying Vashon Advance Outwash. Two deep wells at the Property (URS-MW-8 [SB-11] and B2/MW-2) and two deep wells (B1/MW1, B4/MW4) on the adjacent parcel to the east were installed to monitor groundwater in the Advance Outwash deposits. Depths to groundwater in these monitoring wells ranged between 68 and 93 feet bgs from 2008 to 2011. Based on groundwater depth measurements in October 2011, groundwater in the Advance Outwash is inferred to flow to the south-southeast as shown on Figure 6.



2.2.2. Chemical Analytical Results Summary for Soil and Groundwater

Chemical analytical data for soil and groundwater samples from environmental studies completed at the Property between 2000 and 2011 are summarized in Tables 3 and 4, respectively. Exploration locations and analytical results are shown on Figures 76 through 110.

2.2.2.1. SOIL

Chemical analytical results for PCE in soil samples obtained from exploratory borings drilled on the Property ranged from not detected (or detected at estimated trace concentrations less than the 0.01 to 0.02 milligrams per kilogram [mg/kg] reporting limit) to 2.30 mg/kg. PCE was detected at concentrations exceeding the MTCA Method A cleanup level of 0.05 mg/kg in a portion of the soil samples obtained from 12 to 65 feet bgs. Most of the soil borings in which PCE concentrations exceeded the MTCA Method A cleanup level were located in the northwest portion of the Property (Figure 87). TCE was detected at concentrations exceeding the MTCA Method A cleanup level of 0.03 mg/kg in two samples obtained at depths between 47 and 50 feet bgs, and was co-located with soil samples containing PCE at concentrations exceeding cleanup levels. DCE, vinyl chloride, and No-other CVOCs were not detected in soil samples at concentrations exceeding MTCA cleanup levels.

Gasoline- or oil-range petroleum hydrocarbons were detected at concentrations exceeding MTCA Method A cleanup levels in four soil samples collected from 0.5 to 9 feet bgs in four soil borings located in the west-central portion of the Property (Figure 8). Three of the four samples were collected from less than two feet bgs at these locations. Petroleum either was not detected or was detected at concentrations well below cleanup levels in 66 out of 70 soil samples that were tested. The residual petroleum hydrocarbon impacts appear to be relatively shallow and limited in extent localized on the Property. Benzene, ethylbenzene, toluene, and xylenes (BETX), 1,2-Dichloroethane (1,2-DCA) and methyl tert-butyl ether (MTBE) were not detected in soil samples at concentrations exceeding MTCA cleanup levels.

2.2.2.2. GROUNDWATER

Chemical analytical results for groundwater samples collected from selected monitoring wells on the Property between 2000 and 2011 are presented in Table 4. Compounds analyzed include the following:

- Selected CVOCs including:
 - PCE, TCE, and cis-1,2-DCE,
 - 1,1,1-Trichloroethane (1,1,1-TCA) and 1,2-Dichloroethane (1,2-DCA);
- BETX), MTBE and naphthalenes; and
- Gasoline-, diesel-, and oil-range hydrocarbons.

The highest concentrations of PCE in groundwater samples from the perched zone were collected from monitoring well URS-MW-1 and ranged from 114 to 430 micrograms per liter (μ g/L), exceeding the MTCA Method A cleanup level of 5 μ g/L. Monitoring well URS-MW-1 is located in the northwest corner (upgradient portion) of the Property closest to the Thinker Toys source property. PCE was detected in groundwater samples from several monitoring wells installed in the perched groundwater zone in the western portion of the Property including B-3/MW-3 (up to 88 μ g/L),

MW-19 (33 µg/L), MW-20 (4.6 µg/L), and URS-MW-3 (3.9 µg/L). PCE was detected in groundwater samples from nearby off-Property monitoring wells MW-17 (14 µg/L) and MW-18 (830 µg/L), located to the west, within the 106th Avenue NE right-of way in August 2010. TCE and cis-1,2-DCE also were detected in groundwater samples from these off-Property monitoring wells. Concentrations of PCE generally were highest in groundwater samples collected from shallow monitoring wells in the northern portion of the Property, and lowest in groundwater samples collected from the shallow monitoring wells in the southern portion of the property. TCE and cis-1,2-DCE typically were detected in groundwater samples in which PCE exceeded the MTCA Method A cleanup levels. However, with the exception of TCE in the groundwater sample from monitoring well URS-MW-1, the concentrations were less than the MTCA Method A or B cleanup level. PCE was not detected in groundwater samples collected from monitoring well URS-MW-2, ih the north-central portion of the Property.

Chemical analytical results for PCE in groundwater samples collected from deep monitoring wells screened in the Advance Outwash on the Property, or the adjacent parcel to the east, ranged from not detected in monitoring wells B1/MW-1 and URS-MW-8 to 1.9 to 2.0 μ g/L in the groundwater samples from B2/MW-2 and B4/MW-4. The low level PCE detections in groundwater samples from B2/MW-2 and B4/MW-4 occurred in 2008. PCE was not detected in samples from wells B2/MW-2 and B4/MW-4 during more recent sampling events in 2010 and 2011. PCE either was not detected or was detected at estimated concentrationstrace-levels less than laboratory reporting limits in groundwater samples collected from deep soil borings URS-SB-9 and URS-SB-21. Concentrations of PCE detected in groundwater samples from the Advance Outwash aquifer are less than the MTCA Method A cleanup level of 5 μ g/L. However, the PCE detections in two deep wells in 2008 indicate there is hydraulic connection between the shallow perched water and the deeper groundwater and that the regional aquifer has been impacted by PCE to some extent.

BTETX, and gasoline-, diesel-, and oil-range hydrocarbons were not detected in groundwater samples collected from monitoring wells on the Property between 2000 and 2011. Naphthalens was detected at an estimated concentration less than laboratory reporting limits in a deep groundwater sample collected from URS-SB-15. MTBE was detected at a concentration (1.0 µg/L) well below the MTCA cleanup level (20 µg/L) in a sample from deep well URS-MW-8 (SB-11).

2.3. Cleanup Actions

Remedial action to address petroleum-contaminated soil (PCS) was performed on the western parcel of the Property in 1991 and 1992. USTs, associated piping, equipment, and 500 cubic yards of PCS were removed from the Property in 1991. Following UST removal and follow-up explorations, an additional 1,500 cubic yards of PCS were removed from the parcel in 1992 (EMCON Northwest, 1992). Subsequently, an opinion of No Further Action regarding the cleanup status for petroleum hydrocarbons on the parcel was issued by the Washington State Department of Ecology (Ecology, 1992).

An air sparging-soil vapor extraction (AS/SVE) system is operating on the Thinker Toys source property, located north of the Bellevue Corner Property and NE 8th Street. We understand the system is operating as an interim cleanup action to prepare that property for a subsequent cleanup action that includes excavation and off-site disposal of PCE-contaminated soil. The Thinker Toys



property is being cleaned up by other parties under the VCP program. SRO has no indication of the start date for implementing the subsequent cleanup action at the Thinker Toys property.

2.4. Conceptual Site Model

A Conceptual Site Model (CSM) was developed for the SRO Property RI/FS using information from historical research and explorations. The CSM includes a discussion of contaminant sources, chemicals and media of concern, fate and transport of those chemicals, and potential exposure pathways that could affect human health or the environment. As discussed in the RI/FS, the Property qualifies for an exclusion from a Terrestrial Ecological Evaluation (TEE) because there is less than 1.5 acres of contiguous undeveloped land on, or within 500 feet of, the Property. The CSM was the basis for developing cleanup options and selecting the preferred cleanup action. A summary of the CSM is presented in this section.

Explorations performed on the Property and surrounding properties indicate that PCE and associated chlorinated solvent contamination of soil and groundwater beneath the SRO Property resulted solvely from releases at the dry cleaning facility that operated from 1976 to 1986 on the Thinker Toys source property. The CVOCs released on the Thinker Toys source property migrated passively to the south with groundwater and resulted in contamination on the SRO Property.

PCE has been detected at the Property in soils at depths ranging between 12 and 65 feet bgs and in perched groundwater from approximately 20 to 30 feet bgs, and historically at low concentrations in the deeper regional aquifer. The distribution of PCE in soil and groundwater indicates that the source of PCE at the Property is the upgradient Thinker Toys site. The former use of the SRO Property as a service station does not appear to have contributed to the PCE detected in soil and groundwater at the Property. PCE detections in soil at URS-MW-4 in the southeast portion of the Property represent a data gap that will be evaluated further during the cleanup actionThe lack of historic PCE sources, contaminant plume profiles and the absence of PCE between 12 feet bgs and the ground surface at numerous sample locations indicates that PCE was not released at the Property.

The dense glacial till and silty outwash soil overlying the Advance Outwash aquifer has relatively low permeability and appears tomay act as an aquitard to limit contaminant migration tien ofto the deeper groundwater beneath the Property. However, PCE detected at low levels in groundwater samples from two deep wells in 2008 indicate that there is hydraulic connection between the shallow perched water and the deeper groundwater in the regional aquifer. The potential still exists for the regional aquifer at the Property to be further contaminated in the future by PCE in the future if effective remedial action is not taken at the source (Thinker Toys) propertyfrom offsite PCE-impacted areas including the Thinker Toys source property and adjacent right of ways/streets, particularly if remedial action taken at the source is not effective.

Petroleum releases from historic USTs and other gas station facilities impacted shallow soil at the Property. <u>USTs, associated facilities and most of the PCS were removed during cleanup actions in 1991 and 1992</u>. Residual PCS on the Property appears to be relatively shallow and localized.

With the exception of low level naphthalene and MTBE detections, groundwater contaminated by petroleum hydrocarbons has not been detected at the Property since the early 1990s cleanup.

These groundwater data indicate that PCS impacts to shallow groundwater at the Property, present, have not extended to on-Property locations downgradient of the former service statio facilities.

The contaminants of concern (COC) for the Property include potentially hazardous or toxic compounds that have a history of use at or upgradient of the Property, or which were detected in environmental media during previous investigations. Based on these criteria, the COCs at the Property include PCE_and its related degradation products (TCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride), BTETX, MTBE_1,2-dichloroethane, and gasoline-, diesel-, and oil-range petroleurn hydrocarbons.

Soil, groundwater, and soil vapor are the media of concern at the Property. Potential pathways of exposure from PCE-contaminated soil include volatilization and potential inhalation of PCE-contaminated air, dermal contact, and ingestion. Dermal contact/ingestion also is a potential exposure pathway for the residual petroleum-contaminated soil. Another potential pathway i leaching of PCE/PCE daughter compounds, petroleum and petroleum-related VOCs from contaminated soil to groundwater. However, the potential for petroleum and related VOCs leachin from soil to groundwater is relatively low, in our opinion. This is due to the shallow nature of th remaining soil contamination, data that shows petroleum has not been detected in groundwater the Property, and the low concentrations of petroleum-related VOCs at the Property. Potential pathways of exposure from PCE-contaminated groundwater include volatilization and subsequent exposure through the vapor pathway, direct contact, or ingestion. These potential pathways were considered in the FS. Workers handling soil and groundwater with PCE levels exceeding MTCA cleanup levels, and petroleum-contaminated soil exceeding cleanup levels, will need to be Hazardous Waste Operations and Emergency Response (HAZWOPER) trained. The need fdr HAZWOPER training also will apply to workers who periodically maintain the wall drain groundwater capture system that is a long-term engineering control for the project.

According to Ecology's vapor intrusion guidance (Ecology, 2009), PCE concentrations in groundwater exceeding 24 $\mu g/L$, or in soil vapor beneath a building structure exceeding 96 micrograms per cubic meter ($\mu g/m^3$), have the potential to impact indoor air through a concrete floor slab. An exposure pathway could be created during future redevelopment of the Property, particularly in the northwest corner where PCE concentrations are highest in soil and groundwater. Therefore, the soil gas pathway was considered during evaluation of remedial cleanup alternatives.

3.0 CLEANUP REQUIREMENTS

MTCA and the implementing regulations (Chapter 173-340 WAC) establish procedures for selecting cleanup standards, including cleanup levels and points of compliance. Cleanup standards developed under MTCA must also meet the statutory requirement to be at least as stringent as other applicable state and federal laws. The cleanup standards for the Property are discussed in this section and include cleanup levels, points of compliance, and additional regulatory requirements.



3.1. Cleanup Levels

Cleanup levels for the cleanup action at the Property were selected to address PCE_and related daughter compounds, TCE, cis 1,2, DCE_BETTEX, MTBE, 1,2-DCA and petroleum compounds. Cleanup levels to be used for soil characterization and confirmation sampling and compliance groundwater monitoring are presented in Table 5. The proposed soil cleanup levels are MTCA Method A for Unrestricted Land Use, except for the DCE isomers, vinyl chloride and 1,2-DCA that do not have Method A cleanup levels. Cleanup levels for these CVOCs are Method B based on protection of groundwater. The proposed groundwater cleanup levels are MTCA Method A except for the DCE isomers that do not have Method A cleanup levels. No Method A cleanup level is listed for cis 1,2-DCE; The proposed cleanup levels for the DCE isomers are Method B Standard Formula for drinking water (noncarcinogen) from Ecology's cleanup levels and risk calculations (CLARC) database.

3.2. Points of Compliance

Points of compliance are the points on the Property where soil and groundwater cleanup levels will be attained.

3.2.1. Point of Compliance for Soil

The standard point of compliance for direct contact with soil is from the ground surface to 15 feet bgs (per WAC 173-340-740[6](d)).

However, because contaminated groundwater is present at the Property, the point of compliance for soil is throughout the Property to all depths. Current redevelopment plans indicate that soil in the portion of the Property where PCE- and petroleum-contaminated soil has been identified will be removed to maximum depths equivalent to an approximate elevation of 84 feet AMSL. Because soil on the Property that is shallower than 15 feet will be removed to the Property boundaries during construction, the soil point of compliance is expected to be met.

3.2.2. Point of Compliance for Groundwater

The point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth that could potentially be impacted by the contaminants of concern (WAC 173 340-720[8]. Therefore, groundwater within the Property boundaries is considered to be The point of compliance for the SRO Property is applicable to groundwater within the Property boundaries for the full vertical extent of groundwater impacts. Two water bearing zones have been identified at the Property. Shallow, perched groundwater has been encountered on the Property at depths ranging from approximately 20 to 30 feet bgs. Deeper groundwater is encountered in the underlying advance outwash aquifer on the Property at depths of approximately 68 to 76 feet bgs. Because groundwater on the Property that exceeds MTCA cleanup levels will be removed to the Property boundaries during construction, the groundwater point of compliance is expected to be met.

3.2.3. Point of Compliance for Soil Vapor

Cleanup standards and points of compliance for soil vapor have not been established in Washington State. However, Ecology has published draft guidance that includes soil vapor

screening levels (Ecology, 2009). The draft guidance identifies two points of compliance for soil vapor: sub-slab (immediately below a structure) and soil vapor that is 15 feet or more bgs. The sub-slab screening levels also are applicable to soil vapor samples obtained at depths between 5 and 15 feet bgs. It is possible that soil vapor exceeding Ecology screening levels will exist beneath the sub-slab and adjacent to the subsurface perimeter walls. A soil vapor barrier will be installed during construction to minimize possible vapor intrusion.

3.3. Additional Regulatory Requirements

As required by WAC 173-340-710, the selected cleanup action for the Property will comply with applicable local, state and federal laws and regulations. MTCA (173-340 WAC) represents the primary regulation that establishes cleanup standards, cleanup levels and other requirements for cleanup of the Property.

In addition to MTCA, key requirements that are applicable to the cleanup action at the Property include:

- Washington Dangerous Waste Regulations; Chapter 173-303 WAC.
- Solid Waste Management Act; Revised Code of Washington (RCW) 70.95; WAC Chapters 173-304 WAC and 173-351 WAC.
- Occupational Safety and Health Administration (OSHA) Regulations, 29 CFR Parts 1910 and 1926
- Washington Department of Labor and Industries Regulations, Chapter 296 WAC.
- Washington Minimum Standards for Construction and Maintenance of Wells, Chapter 173-160
 WAC
- City of Bellevue and King County regulations and codes.

3.4 Summary of Cleanup Alternatives Evaluated in the RI/FS

Based on the RI results, the following remedial alternatives were considered for the Property to address soil and groundwater contaminated with chlorinated solvents and petroleum:

- 1. No action;
- Excavation of contaminated soil exceeding MTCA cleanup levels with on-site treatment and reuse:
- 3. Excavation of contaminated soil exceeding MTCA cleanup levels with off-site disposal at a permitted facility;
- Capture of contaminated, perched groundwater using perimeter wells and permitted water discharge;
- Capture of contaminated, perched groundwater using subsurface wall drains, and permitted water discharge;
- 6. Soil Vapor Extraction and Treatment system at the perimeter of the Property; and



7. Installation of a vapor barrier on subsurface, perimeter building walls and concrete slab at bottom of the underground parking structure.

As discussed in the FS, an evaluation of remedial alternatives was completed by comparing alternatives 1 through 7 against MTCA-specified threshold requirements and screening criteria. Based on the remedial alternatives evaluation, alternatives 1, 2, 4 and 6 would not achieve the cleanup action objectives of this project or satisfy the MTCA requirements for cleanup actions, in our opinion. As a result, alternatives 1, 2, 4 and 6 were eliminated from further consideration.

4.0 SELECTED CLEANUP ACTION

This section presents the rationale for selecting the cleanup action and an overview of the selected cleanup action. Section 6.0 presents a detailed discussion of the components of the selected cleanup action and the sequencing for cleanup action implementation.

4.1. Alternatives Analysis and Cleanup Action Selection Rationale

Based on the evaluation of remedial alternatives presented in the FS, the selected cleanup action consists of the following components:

- Excavation and off-site disposal of PCE- and petroleum-contaminated soil at a permitted facility;
- Capture of contaminated, perched groundwater with subsurface wall drains and permitted water discharge;
- Installation of a vapor barrier on the subsurface perimeter walls and concrete slab at bottom of the underground parking structure; and
- Institutional controls, including maintenance requirements for engineered controls (groundwater capture system and vapor controls) and restrictions on groundwater use.

This cleanup action was selected because it meets MTCA requirements for a permanent, protective cleanup action and can be implemented concurrently with Property redevelopment. Components of the selected cleanup action alternative have been implemented at other similar sites and are technically feasible within the redevelopment framework. It is anticipated that soil and shallow groundwater with contaminant concentrations that exceed MTCA cleanup levels will be removed from the Property. A vapor barrier will be installed to minimize potential intrusion of volatile organic vapors into the building. The proposed cleanup action does not result in a significant amount of additional short-term risk beyond what is typical for a large construction project in an urban setting. Except for long-term operation and maintenance of the groundwater capture system and post-cleanup compliance groundwater monitoring, the cleanup action is expected to be completed within a reasonable restoration timeframe of 1 to 2 years after construction of the proposed redevelopment begins.

4.2. Cleanup Action Description

The cleanup action will consist of the activities presented in the following subsections. Additional details regarding cleanup action implementation and sequencing are presented in Section 6.

4.2.1. Soil Excavation

Based on current development plans, soil will be excavated and removed from the Property and the east-adjacent Phase I parcel during excavation for the building foundation and below-grade parking garage. The planned area of excavation for the Phase I redevelopment is shown on Figures 2 and 124. Shoring will be installed at the Property boundaries to allow excavation of the Planned Development Excavation. The construction excavation is planned to extend from property-line to property-line to comply with City of Bellevue requirements. Contaminated soil will be excavated and transported from the Property to a permitted disposal facility, as discussed in Section 6.2.1, and in accordance with the Environmental Materials Handling Plan (EMH Plan) that will be provided in a separate document.

4.2.2. Perched Groundwater Capture System

A contaminated perched groundwater capture system will be incorporated in the Property's northern, western and southern portions of the engineered subsurface wall drains that will be designed to relieve hydrostatic pressure on the external building walls. As discussed in Section 6.2.2, the shallow groundwater capture system will be designed to minimize downward migration of shallow contaminated groundwater at the perimeter walls of the building at the Property. The location-extent of the portion of the perimeter wall drains that will capture the perched contaminated groundwater are shown in Figure 124. The location of the contaminated groundwater capture system is based on existing chemical data that defines the extent of PCE-contaminated soil and groundwater at, and immediately adjacent to, the Property. The lateral extent of the groundwater capture system is subject to revision based on chemical analytical results for soil characterization/confirmation samples collected during construction. The subsurface wall drains will operate for the life of the building. Captured groundwater will be discharged to the sanitary sewer under a Discharge Authorization from King County if the concentration of PCE is less than the county's 240 µg/L discharge limit. If water samples collected from the capture system during construction exceed the PCE discharge limit, water treatment, with technologies such as granular activated carbon, will be required prior to discharge to the sanitary sewer. Design details for the groundwater capture system will be mutually agreed upon by the Developer and SRO and presented in the project plans and specifications package.

4.2.3. Vapor Barrier

A vapor barrier will be installed on all of the subsurface perimeter walls and the concrete slab at the base of the parking structure, as discussed in Section 6.2.3. The intent of the vapor barrier is to minimize potential vapor intrusion into the underground parking structure. Design details for the vapor barrier will be mutually agreed upon by the Developer and SRO and presented in the project plans and specifications package.

4.2.4. Institutional Controls

Institutional controls will be considered as part of the cleanup action to address contaminated soil that is expected to remain at some locations on other parcels and right-of-way immediately adjacent to the subject Property. Institutional controls also will be considered for contaminated shallow groundwater that likely willcould continue to migrate toward the Property from the upgradient source property. Institutional controls discussed in Section 6.3.4 include requirements for operation and maintenance of engineered controls, and post-construction monitoring



requirements. In addition, financial assurances to maintain the institutional controls will be established as necessary.

5.0 CLEANUP ACTION OBJECTIVES

The overall objective is to complete a cleanup action, in conjunction with development of the planned high-rise commercial building, that is compliant with MTCA and protective of human health and the environment. The following Property-specific cleanup action objectives take into account the proposed Property redevelopment and media of concern:

- Avoid generating dangerous waste by obtaining a Contained-In Determination from Ecology for PCE-contaminated soil. The Contained-In Determination will allow for disposal of PCE-contaminated soils at permitted landfills that are protective but less costly than dangerous waste disposal facilities.
- Remove contaminated soil and groundwater throughout the Property, within the boundaries of construction excavation, to achieve cleanup levels for unrestricted land use.
- Develop and implement engineered controls to collect PCE-impacted perched groundwater that encounters the perimeter walls of the planned building at the Property. The wall drain system, including the portion that will also act as the contaminated groundwater capture system, will be designed to function for the life of the building.
- Develop and implement engineered controls as needed at the Property to mitigate risk of vapor intrusion into the proposed building and underground parking structure.
- Obtain a Property-specific No Further Action (NFA) opinion from Ecology.

6.0 CLEANUP ACTION IMPLEMENTATION AND SEQUENCING

The cleanup action for the Bellevue Corner Property will be performed concurrently with the Property redevelopment. The primary elements of the cleanup action include the following:

6.1. Pre-Construction Actions

The following actions will be performed before construction activities begin on the Property.

6.1.1. Contained-In Disposal Request

A 'Contained-In' determination will be requested from Ecology to authorize disposal of PCE-contaminated soil excavated at the Property. The 'Contained-In' determination is expected to authorize disposal of all PCE-contaminated soil excavated at the Property at a permitted Subtitle D solid waste landfill, rather than a Subtitle C hazardous waste facility. A 'Contained-In' determination is expected to be issued by Ecology for the cleanup because the highest concentrations of PCE detected in soil at the Property do not warrant management as a Dangerous Waste (Ecology communication, February 2013), and because one such determination has been issued previously by Ecology for investigative-derived wastes from the Property.

6.1.2. Monitoring Well Decommissioning

Monitoring wells located within the footprint of the planned Phase I construction excavation will be decommissioned by a Washington-licensed driller in accordance with Ecology requirements (WAC 173-160-460) before installation of shoring or soil excavation begins. The following monitoring wells are within the planned excavation footprint (Figure 76):

- Shallow monitoring wells URS-MW-1 through URS-MW-4, URS-MW-8, B3/MW-3, MW-19 and MW-20.
- Deep Monitoring Wells B1/MW-1, B2/MW-2, B4/MW-4 and URS-MW-8.

In addition, several wells located outside of, but close to, the Property boundary (MW-17, MW-18, URS-MW-5, URS-MW-6, and URS-MW-7), may need to be decommissioned to accommodate installation of soil nails or other shoring elements. The need for decommissioning these off-Property monitoring wells will be evaluated once design/construction details are available. Monitoring well construction information and groundwater elevation information is presented in Table 2.

6.1.3. Building and Improvements Demolition

The buildings and improvements located on the Property and the parcel to the east will be demolished and removed before shoring installation and construction excavation begins. Environmental evaluations of the building materials and demolition procedures are expected to be within the normal range for such procedures and are not included in the scope of this document.

6.2. Cleanup Actions During Construction

Cleanup actions to be implemented during construction include excavation and off-site disposal df soil containing CVOCs and petroleum hydrocarbons, construction of a contaminated perched groundwater capture system, and installation of a vapor barrier on the subsurface walls and bottom slab of the building.

6.2.1. Soil Excavation and Disposal

Contaminated soil excavation will take place during construction of the Phase I development. Soil containing petroleum hydrocarbons and PCE will be excavated from the Property and disposed at a permitted facility as will be described in the EMH Plan. We estimate that approximately 26,000 tons of PCE-contaminated soil and 1,100 tons of PCS will be generated during excavation for the planned development on the Property based on chemical analytical results from previous environmental studies, interpretation of the lateral/vertical extent of the PCE plume and the cleanup action plan. These quantities should be considered preliminary estimates that are subject to significant change based on the results of supplemental soil characterization sampling that will be conducted during excavation, and changes in the construction plans for the Property, if any.

6.2.1.1. GENERAL SOIL EXCAVATION COMPONENTS

The following general soil excavation components will be implemented during construction:

Implementation of erosion control and construction safety/security measures.



- Shoring to facilitate the planned Phase I construction excavation. Vertical shoring elements and soil nails are proposed to be installed in areas where PCE-contaminated soil and groundwater have been identified (Figure 124).
- Excavation of the upper 1 foot of soil/gravel from the gravel parking lot in the western parcel and disposal as PCS based on existing data and the high likelihood of petroleum contamination from many years of vehicle oil drips.
- Excavation of soil from PCS hot spot areas at depths shallower than 17 feet bgs (approximately Elevation 140) based on existing soil data. Segregation of PCS and clean soil, as discussed in Section 6.2.1.2.
- Soil sampling and analysis beginning at approximately 15 feet bgs (2 to 3 feet bgs in the southeast margin of the Property near MW-4) to refine the PCE-contaminated soil segregation approach as discussed in Section 6.2.1.3. Soil sampling during excavation will be guided by a approximately 20 foot by 20 foot sampling grid for each 5- to 6-foot vertical excavation 'lift' to maximum depths of approximately 70 feet bgs (the deepest PCE detections were 65 feet bgs). Dimensions of the grid that will guide excavation and sampling, and the vertical lift thickness, may be revised based on input from the Developer's contractors; final grid cell dimensions will be included in the EMH Plan.
- PCE has not been detected above depths of 17 feet bgs, except for a location in the southeast margin of the Property near URS-MW-4 where PCE was detected at a depth of approximately 12 feet bgs. Excavation of soil below 17 feet bgs within the Phase I redevelopment to maximum depths equal to elevation 84 feet (based on current project design), and segregation of PCE-contaminated soil and clean soil based on existing chemical data and supplemental chemical data that characterize the soil in the excavation grid cells.
- Temporary construction dewatering of the shallow perched zone may be performed below depths of about 20 feet bgs to reduce groundwater seepage from the excavation wall face and facilitate shoring installation and soil excavation. If temporary dewatering of perched water is needed, it is anticipated that vacuum wellpoints installed in the shoring wall will be used. Procedures for managing and discharging groundwater during construction that may be contaminated with PCE will be discussed in the EMH Plan.
- Transportation of excavated contaminated soil and disposal of the soil at one or more off-Property, permitted facilities. Soil management requirements for PCE-contaminated soil will be included in the 'Contained-In' determination letter from Ecology and will be discussed in the EMH Plan.
- Transportation of excavated clean soil (soil with no detected concentrations of petroleum or CVOCs at or above laboratory reporting limits) for disposal at off-Property soil receiving facilities to be agreed upon by SRO and the DeveloperRockefeller. Reporting limits specified in Ecology Publication No. 10-09-057 ("Guidance for Remediation of Petroleum-Contaminated Sites") will be used for the petroleum analyses (gasoline-range 5 mg/kg; diesel-range 25 mg/kg; oil-range 100 mg/kg). Reporting limits of 0.02 mg/kg will be specified for PCE-TCE soil characterization analyses
- Management and permitted discharge of stormwater and groundwater during excavation/construction activities.

Collection/analysis of confirmation soil samples during excavation to document soil conditions
at the lateral and vertical limits (sidewalls and base) of the excavation at the Property.

6.2.1.2. SHALLOW PETROLEUM-CONTAMINATED SOIL EXCAVATION

Soil analytical results indicate that petroleum-contaminated soil will be encountered at concentrations greater than and less than MTCA cleanup levels at some locations on the Property at depths ranging from approximately ground surface to 20 feet bgs.

- SOIL EXCEEDING MTCA CLEANUP LEVELS. Soil with concentrations of petroleum hydrocarbons exceeding MTCA Method A cleanup levels has been detected in the central portion of the Property in four soil samples (Figure 8-7):
 - Shallow soil samples from borings SRO-3 (1 foot), SRO-13 (0.5 foot), and SRO-17 (1.8 feet) and
 - Boring SRO-7 (9 feet).
- SOIL LESS THAN MTCA CLEANUP LEVELS. Soil with concentrations of petroleum hydrocarbons less than MTCA cleanup levels was identified at several locations on the Property within or close to the footprint of the former service station. This soil is sometimes referred to as 'nuisance' soil because its disposal at a permitted facility is normally preferred even though contaminant levels are less than cleanup levels.

The upper 1 foot of soil/gravel will be excavated from the gravel parking lot in the western parcel at the Property and disposed as PCS based on existing data and the high likelihood of petroleum contamination in surface soil from many years of vehicle oil drips. A significant amount of soil that will be excavated from the top 15 feet of the Property does not appear to contain petroleum hydrocarbons or PCE and will be designated as clean based on the results of previous environmental studies.

Soil will be excavated from the PCS hot spot areas in the western parcel. The former service station operated on the western parcel and analytical results for soil samples collected from the Property indicate that PCS is limited to that area. Visual observations and field screening methods will be used during excavation to assist with soil characterization/segregation. Soil samples will be collected from the sidewalls and base of the hot spot excavations and analyzed for petroleum hydrocarbons (NWTPH-Gx and NWTPH-Dx) and BTETX to document soil conditions at the excavation limits. Confirmation sampling procedures and rationale will be presented in the EMH Plan.

Based on historic land use, it is possible that additional PCS hot spots will be identified during excavation in the upper 15 to 20 feet of the western parcel. Potential hot spot areas are often identified by petroleum odor, soil staining and/or field screening results.

6.2.1.3. PCE-CONTAMINATED SOIL EXCAVATION

Based on existing data, excavation of PCE-contaminated soil is anticipated to start at approximately 10 feet bgs (elevation 144) in the vicinity of MW-4, and at 17 feet bgs (approximately elevation 140) in the remainder of the Property. Additional soil sampling will be conducted during construction in the upper 12 feet bgs in the vicinity of MW-4 because shallow PCE data does not exist in this area. As excavation for shoring installation proceeds in approximate 5- to 6-foot lifts, soil characterized as containing PCE will be segregated from soil characterized as



clean. For the purposes of this cleanup, soil excavation cells that are characterized by samples that do not contain PCE at concentrations equal to or above the selected laboratory reporting limit (0.02 mg/kg) will be considered clean. The majority of the PCE-contaminated soil is anticipated in the northwest portion of the Property at depths of approximately 18 to 55 feet bgs (approximately elevations 100 to 137). The location of excavation grid cells that contain PCE-contaminated soil based on existing data, or are designated as containing PCE-contaminated soil based on adjacent grid cell data and interpreted plume extent, will be shown in the EMH Plan.

Soil samples for disposal characterization will be obtained using an approximately 20 foot by 20 foot grid before excavating each vertical lift, in accordance with sampling procedures to be presented in the EMH Plan. The target sampling depth will be two to three feet below the grid surface. The locations of soil disposal characterization samples will take into account existing chemical data and visual observations of soil conditions encountered during excavation. If existing soil analytical data are available within a grid cell, those data will be used to classify soil in that cell as clean or contaminated, and additional in-place soil characterization samples will not be collected. Grid cells that contain sample locations with both contaminated and clean chemical analytical results will be designated as contaminated for the purposes of soil segregation and disposal. Before excavating each vertical lift, the environmental consultant will mark grid cells where PCE-contaminated soil has been designated using methods such as stakes and survey tape and/or spray painting the ground surface. PCE-contaminated grid cells will be excavated first in each lift to avoid cross-contamination of clean soil. The contaminated soil will be trucked directly to a Subtitle D landfill or placed in steel containers that will be trucked to a local transfer station for transport by rail to a Subtitle D landfill.

In addition to excavated soil, drill cuttings generated below a depth of approximately 10 feet (southeast portion of Property) to 15 feet (remainder of Property) during installation of vertical shoring elements and soil nails in the PCE-contaminated area shown on Figure 124 will be designated as PCE-contaminated and require segregation, management, and permitted disposal at a Subtitle D landfill.

The remedial excavation will not extend beyond the limits of the construction excavation. Because PCE has migrated to the Property from an upgradient source property, PCE-contaminated soil and perched groundwater are expected to remain in place at some locations on other parcels and right-of-way immediately adjacent to the subject Property. Though unlikely, it is possible that contaminated soil will remain at the vertical limits (bottom) of the excavation in limited areas of the Property. Confirmation sampling will be completed at the base and sidewalls of the remedial excavation to document post-cleanup soil conditions.

6.2.1.4. PCE-CONTAMINATED WATER FROM EXCAVATION

Water removed from the Property during construction that may contain PCE will be contained in onsite tanks for testing by the Contractor. It is anticipated that this water will be discharged directly to the sewer in accordance with a King County Discharge Authorization. If water samples collected from the storage tanks during construction exceed the county's 240 µg/L PCE discharge limit, water treatment, with technologies such as granular activated carbon, will be required by the contractor prior to discharge to the sanitary sewer. Water that may contain PCE includes:

Stormwater that accumulates in the excavation,

- Perched groundwater that seeps into the excavation,
- Perched groundwater pumped from temporary construction dewatering wellpoints/sumps, and
- Deep groundwater generated from sumps used for limited dewatering of elevator pit and core footing excavations.

6.2.2. Perched Groundwater Capture System

A groundwater capture system will be constructed to collect PCE-contaminated perched groundwater that will flow toward the SRO Property boundary from the upgradient source property and adjacent contaminated areas to the west and south during and after construction. The lateral extent of the proposed groundwater capture system is shown on Figure 124. The water capture system will be extended further to the east if soil characterization sampling during construction indicates the PCE plume extends further to the east than currently estimated. The capture system will collect contaminated water from the shallow perched water zone identified at depths of approximately 20 to 35 feet bgs at the Property. In addition, groundwater will be captured at depths of approximately 35 to 65 feet in portions of the Property where the presence of PCE-contaminated soil indicates that PCE-impacted groundwater seepage may be encountered during construction. These depths correspond to approximate elevations 140 to 98 (north wall), 140 to 98 (west wall) and 130 to 86 (south wall).

The groundwater capture system will be incorporated into the engineered wall drains that will be designed to relieve hydrostatic pressure on external building walls. The groundwater capture system will be designed to minimize downward migration of contaminated perched groundwater at the perimeter walls of the building at the Property. A key design objective is to capture the contaminated perched water that would otherwise drain down the walls to the footing drains at the bottom of the building. Design concepts include using horizontal tightline pipes to route captured water from several elevations along the wall drains to collection sumps. It is anticipated that water will be pumped from the collection sumps and discharged to the sanitary sewer. Design details for the contaminated groundwater capture system will be mutually agreed upon by the Developer and SRO and included in the project plans and specifications package.

Based on the relatively low permeability of the glacial till and silty outwash soil, long-term flow rates of perched groundwater to the capture system are anticipated to be 10 gallons per minute or less. The Developer's design team will estimate the flow/discharge rate of the capture system as part of drainage design for the planned building. The possible need to treat captured groundwater with technologies such as granular activated carbon prior to discharge in the sewer will depend on whether PCE concentrations in the captured water exceed King County's 240 μ g/L PCE discharge limit (to be determined during construction).

The groundwater capture system is expected to operate and discharge water to the sanitary sewer for the life of the building. Post-construction operation, maintenance, and monitoring requirements for the groundwater capture system are summarized in Section 8.3.

6.2.3. Vapor Barrier

An interim cleanup action consisting of in-situ air sparging and soil vapor extraction treatment of PCE-contaminated soil and perched groundwater is currently taking place at the source property



(Thinker Toys). We understand that a cleanup action involving excavation/removal of PCE-contaminated soil is planned during re-development at the source property by other parties. However, PCE-contaminated soil and groundwater with high levels of PCE are expected to remain in place beneath the rights-of-way of NE 8^{th} Street and 106^{th} Avenue NE for many years after the source property cleanup is completed. PCE concentrations in groundwater samples from several wells located on and immediately west of the SRO Property exceeded Ecology's $24~\mu g/L$ screening level for PCE levels in groundwater that represent a significant potential for vapor intrusion. A vapor barrier will be installed on all of the subsurface perimeter walls and the concrete slab at the base of the Phase I parking structure to minimize potential vapor intrusion into the underground parking structure and building.

The Phase I building design is important relative to vapor migration considerations because of the interconnectivity and preferential vapor pathways that will be created as part of the construction (for example interconnected subslab drainage piping and sand bedding). The detailed vapor barrier design/specifications will be mutually agreed upon by the Developer and SRO and will take into account this interconnectivity and preferential vapor pathways.

The vapor barrier will be designed and constructed to account for the following:

- Installation directly above the layer onto which the subslab is poured and behind subsurface perimeter walls, including portions of elevator shafts that extend below the subslab.
- Air-tight seal (fully sealed seams, sealing where utilities penetrate the concrete walls/slab etc.).
- Compatibility with CVOCs at concentrations exceeding the known maximum concentrations identified near the Property (for example, an asphalt emulsion type geomembrane vapor barrier, such as Land Science Technology's Geo-Seal®), which can withstand degradation caused by CVOCs.
- Compatibility with the groundwater capture system/wall drain design.
- Possible preferential pathways for vapor that may be created by nearby subsurface utilities.

The Developer's Contractor will be responsible for coordinating/managing the installation of the vapor barrier. A specialty subcontractor will install the vapor barrier in accordance with the design and project/barrier manufacturer's specifications. Vapor barrier design details and specifications will be prepared once designs for the Phase I building foundation and other subgrade features are completed.

6.3. Post-Construction Actions

Operation, maintenance, and monitoring of engineered controls, groundwater monitoring, and institutional controls following construction are described in the following sections.

6.3.1. Post-Construction Groundwater Monitoring

Long-term groundwater monitoring will be performed near the Property boundaries after construction to evaluate groundwater conditions in both the shallow, perched zone and the deeper Advance Outwash aquifer. It is anticipated that several existing wells may be used to evaluate post-construction groundwater conditions near the Property perimeter. Additional monitoring wells will

be installed to supplement existing monitoring wells. Because the subsurface parking garage will extend lot-line to lot-line, post-cleanup groundwater monitoring wells for sampling shallow, perched groundwater will be installed at the perimeter of the Property. Post-cleanup monitoring wells for sampling the deeper groundwater in the Advance Outwash aquifer will be installed beneath the new building during construction so that deep water samples represent on-Property water. New monitoring wells will be installed in accordance with Ecology requirements (WAC 173-160). Groundwater samples will be submitted for chemical analysis of PCE and its degradation products. BTETX. MTBE, 1,2-DCA, and petroleum (gasoline-range petroleum hydrocarbons [GRPH], diesel-range petroleum hydrocarbons [DRPH] and oil-range petroleum hydrocarbons [ORPH]).CVOCs. Monitoring well installation and sampling will be conducted in accordance with a written groundwater monitoring plan.

6.3.2. Cap Monitoring and Maintenance

Cap monitoring and maintenance will be implemented following Phase I redevelopment. For the purpose of this cleanup action, the walls of the parking garage are considered a cap/barrier that isolates contamination remaining in place adjacent to the Property (and beneath the base slab if any contaminated soil remains at the bottom of the excavation). Cap monitoring and maintenance will be handled by the DeveloperRockefeller as part of the general housekeeping and maintenance of the Property. The integrity of the cap and associated vapor barrier will need to be maintained consistent with standard building maintenance practices. Monitoring and maintenance activities will be described in detail in a "Post-Construction Environmental Management Plan" for the Property.

6.3.3. Groundwater Capture System Operation, Maintenance and Monitoring

Post-construction operation, maintenance, and monitoring will be required for the groundwater capture system. The following activities will be performed:

- Sampling of groundwater collected by the capture system for analysis of CVOCs to evaluate compliance with sewer discharge requirements.
- Operation and maintenance of groundwater treatment system components (if treatment of water from the capture system is required prior to sewer discharge).
- Sampling of groundwater from subslab drains and elevator sumps constructed at the base of the parking garage for analysis of CVOCs.
- Details regarding these activities will be presented in the Post-Construction Environmental Management Plan.

6.3.4. Institutional Controls

Institutional controls will be considered for part of the cleanup action and will likely include:

- cap-vapor barrier maintenance (i.e., maintaining the building walls and foundation);
- land use restrictions prohibiting the use of groundwater beneath the Property for drinking water:



- description of areas at the limits of the excavation where soil exceeding cleanup levels remains; and
- post-cleanup soil handling protocols that building/facility management staff can use to advise future utility/excavation contractors on the presence of residual contamination.

An environmental covenant <u>for the Property will documentmay be used to formalize</u> the institutional controls, provide financial assurance for operation, maintenance, and monitoring of engineered controls, and address Ecology notification procedures.

7.0 SCHEDULE

Construction for the planned Phase I redevelopment and concurrent cleanup is anticipated to begin within 1 to 5 years. Excavation activities for the Phase I redevelopment are anticipated to be completed within 6 months of the start date. Installation of the contaminated groundwater capture system and chemical vapor barrier will take place during building construction and are anticipated to be completed within two years of the construction start date. If necessary, A an environmental covenant will be prepared after the Phase I redevelopment is completed. Quarterly compliance groundwater monitoring will be performed for one year once construction of the building is completed. The frequency of long-term groundwater monitoring will be re-evaluated based on the results of the first four quarters of data.

8.0 DOCUMENTATION

Cleanup activities will be documented in field reports and a MTCA-compliant cleanup action report. A Post-Construction Environmental Management Plan and compliance groundwater monitoring reports also will be prepared.

8.1. Field Reports

Daily field reports will be prepared to document cleanup activities. Field reports will include the following:

- A description of soil characterization sampling activities (sample names, locations etc.), chemical analytical results, <u>grid_cell</u> soil conditions, and final designation of each cell as contaminated or clean.
- A description of cleanup activities including estimated quantities (cubic yards/tons) and locations (grid cells) where contaminated soil was removed from the Property.
- Team members and their responsibilities.
- Time of arrival/entry on Site and time of departure.
- Other personnel present at the Site.
- Summary of pertinent meetings or discussions with contractor personnel or regulatory agency staff.
- Photographs documenting cleanup actions.

- Deviations from sampling plans, Site safety plans, etc.
- Levels of safety protection (PPE).
- Calibration readings for vapor field screening equipment used and equipment model.

8.2. Cleanup Action Report

At the completion of the Phase I redevelopment, a MTCA-compliant cleanup action report will be prepared per WAC 173-340-515(4)(a)-(b) and submitted to Ecology to document removal of contaminated soil and groundwater and installation of engineered controls. The report will include all chemical data generated during the cleanup action and those data will be submitted to Ecology's Environmental Information Management System (EIM) as required to obtain a NFA opinion from Ecology.

8.3. Post-Construction Environmental Management Plan

A written "Post-Construction Environmental Management Plan" (Plan) will be prepared for the Property and submitted to Ecology. The Plan will identify areas, if any, where previous study results and construction observations indicate that contaminated soil remains in-place. The Plan also will include operation, maintenance, and monitoring procedures for the engineered controls. Guidance on proper handling and disposal of potentially contaminated soil and groundwater that may be encountered during future Property maintenance or excavation for utilities will be provided.

8.4. Compliance Monitoring Reports

Compliance monitoring reports summarizing operation and maintenance activities and water quality test results for the contaminated groundwater capture system will be prepared and submitted to Ecology. Groundwater monitoring reports describing post-construction water quality testing results for selected wells on/adjacent to the Property also will be prepared. These reports will be completed on a quarterly basis in the first year after cleanup/construction is completed; the frequency may be revised based on the results of the first four quarters of testing. Compliance monitoring data will be submitted to Ecology's Environmental Information Management System (EIM).

9.0 LIMITATIONS

We have prepared this Cleanup Action Plan for use by Sterling Realty Organization as part of their evaluation of and planning for environmental conditions at the subject Property.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this Plan was prepared. No warranty or other conditions, express or implied, should be understood. This Plan was prepared based on previous investigations and data collected by others. GeoEngineers is not responsible for any data that were inaccurately reported by others and reproduced here.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.



Please refer to Appendix A titled "Report Limitations and Guidelines for Use" for important additional information pertaining to the use of this report.

10.0 REFERENCES

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Table 1

Project Roles and Responsibilities

Sterling Realty Organization Property at 10605 and 10619 NE 8 $^{\rm th}$ Street Bellevue, Washington

Organization	Roles/Responsibilities							
Sterling Realty Organization	Property owner. May be the Developer of Bellevue Corner Property are the adjacent parcel to the east (Phase I Re-Development).							
GeoEngineers, Inc.	Environmental consultant for Sterling Realty Organization (SRO). Responsible for preparing Remedial Investigation/Feasibility Study and Cleanup Action Plan for Bellevue Corner Property. On behalf of SRO, will observe implementation of Cleanup Action Plan.							
Developer (To be Determined)	SRO will enter into an agreement with a Developer to construct the project if SRO decides not to act as the Developer.							



Table 2

Monitoring Well Groundwater Elevation Data, 2008 - 2011 Sterling Realty Organization Property at 10605 and 10619 NE 8th Street Bellevue, Washington

	Well	Top of			Groundwater Depth (feet, bgs)									Groundwater Elevation (feet, NAVD 88)														
Monitoring Well	Screen Interval (feet, bgs)	Elevation	Elevation (feet above	Elevation (feet above	Date Installed		n Installed	Well Screen Elevation (feet above datum)	6/26/08	7/7/08	9/10/08	11/21/08	3/16/10	3/17/10	5/3/10	8/23/10	10/19/11	10/21/11	6/26/08	7/7/08	9/10/08	11/21/08	3/16/10	3/17/10	5/3/10	8/23/10	10/19/11	10/21/11
URS-MW-1	20-30	157.87	8/25/2008	137.87 - 127.87	NI	NI	26.41	27.21	22.50	22.66	22.49	22.95	NM	24.53	NM	NM	131.46	130.66	135.37	135.21	135.38	134.92	NM	133.34				
URS-MW-2	20-30	160.22	8/27/2008	140.22 - 130.22	NI	NI	Dry	Dry	24.64	25.05	24.45	25.89	NM	28.61	NM	NM	Dry	Dry	135.58	135.17	135.77	134.33	NM	131.61				
URS-MW-3	20-30	153.98	8/26/2008	133.98 - 123.98	NI	NI	27.36	28.75	22.28	22.54	22.40	23.24	NM	25.52	NM	NM	126.62	125.23	131.70	131.44	131.58	NM	NM	128.46				
URS-MW-4	20-30	152.99	8/26/2008	132.99 - 122.99	NI	NI	Dry	Dry	NM	29.87	29.85	30.08	NM	29.89	NM	NM	Dry	Dry	NM	123.12	123.14	122.91	NM	123.10				
URS-MW-5 ³	25-35	152.13	11/18/2008	117.13 - 127.13	NI	NI	NI	Dry	Dry	Dry	NM	Dry	NM	34.66	NI	NI	NI	Dry	Dry	Dry	NM	Dry	NM	117.47				
URS-MW-6 ³	34-44	152.67	11/18/2008	108.67 - 118.67	NI	NI	NI	Dry	Dry	Dry	NM	Dry	42.58	42.41	NI	NI	NI	Dry	Dry	Dry	NM	Dry	110.09	110.26				
URS-MW-7 ³	26-36	152.91	11/18/2008	116.91 - 126.91	NI	NI	NI	Dry	Dry	Dry	NM	Dry	34.78	35.27	NI	NI	NI	Dry	Dry	Dry	NM	Dry	118.13	117.64				
URS-MW-8	70-80	152.35	10/12/2008	82.35 - 72.35	NI	NI	NI	NM	NM	NM	NM	NM	68.62	68.40	NM	NM	NM	NM	NM	NM	NM	NM	83.73	83.95				
B1/MW-1	70-90	169.63	6/22/2008	99.63 - 79.63	NM	NM	NM	NM	90.77	92.81	NM	NM	NM	85.49	NM	NM	NM	NM	78.86	76.82	NM	NM	NM	84.14				
B2/MW-2	70-90	159.02	6/23/2008	89.02 - 69.02	74.30	74.62	NM	74.95	75.90	75.97	75.69	75.50	NM	73.15	84.72	84.40	NM	84.07	83.12	83.05	83.33	83.52	NM	85.87				
B3/MW-3	20-30	158.89	6/24/2008	138.89 - 128.89	23.89	23.93	24.68	28.93	23.45	23.40	23.43	23.70	NM	23.79	135	134.96	134.21	129.96	135.44	135.49	135.46	135.19	NM	135.10				
B4/MW-4	70-90	157.06	6/24/2008	87.06-67.06	82.31	82.29	NM	79.30	76.58	76.58	76.60	76.61	NM	75.12	123.14	122.91	NM	77.76	80.48	80.48	80.46	80.45	NM	81.94				
MW-17 ³	20-35	152.93	8/9/2010	133.00-118.00	NI	NI	NI	NI	NI	NI	NI	29.30	NM	29.30	NI	NI	NI	NI	NI	NI	NI	123.63	NM	123.63				
MW-18 ³	12.5-27.5	154.49	8/9/2010	142.20-127.20	NI	NI	NI	NI	NI	NI	NI	20.71	NM	20.98	NI	NI	NI	NI	NI	NI	NI	133.78	NM	133.51				
MW-19	10-30	156.31	8/5/2010	146.31-126.31	NI	NI	NI	NI	NI	NI	NI	27.21	NM	29.18	NM	NM	NM	NM	NM	NM	NM	129.10	NM	127.13				
MW-20	15-30	152.63	8/6/2010	137.63 - 122.63	NI	NI	NI	NI	NI	NI	NI	21.93	NM	23.40	NM	NM	NM	NM	NM	NM	NM	130.70	NM	129.23				
Data Source	Farallon ¹	Farallon ¹		Farallon ¹	Farallon ¹	Farallon ¹	URS ²	URS ²	URS ²	URS ²	Farallon ¹	Farallon ¹	URS ²	URS ²	Farallon ¹	Farallon ¹	URS ²	URS ²	URS ²	URS ²	Farallon ¹	Farallon ¹	URS ²	URS ²				

Notes:

¹As reported (SES, 2011)

²As reported (URS, 2011)

³Off-Property location

NM = not measured

NI = Monitoring well not yet installed

feet bgs = feet below ground surface

feet NAVD 88 = feet above datum

Vertical datum based on City of Bellevue - NAVD 88

Monitoring wells labeled "URS" were completed by URS Corporation.

Monitoring wells B1/MW-1, B2/MW-2, B3/MW-3, and B4/MW-4 were completed by Terra Associates.

Monitoring wells MW-17 through MW-20 were completed by Farallon.

May 3, 2010, groundwater elevations in perched zone are shown on Figure 5.



Table 3

Chemical Analytical Data for Soil Samples

Sterling Realty Organization Property at 10605 and 10619 NE 8th Street Bellevue, Washington

					VOCs (r	ng/kg) ¹	Gasoline-range	Diesel-range	Oil-range	Excavatio		
Sample ID	Sample Collected By	Sample Date	Depth (feet bgs)	Elevation (feet NAVD 88)	PCE	TCE	Petroleum Hydrocarbons (mg/kg) ²	Petroleum Hydrocarbons (mg/kg) ³	Petroleum Hydrocarbons (mg/kg) ³	Lift	Grid Cell	
Soil samples collected		•	(1001 280)	(1000111112 00)	ı		(8/8/	(6/6/	(6/6/			
URSSB-OP1		3/11/2000	6	148			< 5.6	< 28	< 56	3	H4	
		3/11/2000	18	136	< 0.056	< 0.056	< 5.6	< 28	< 56	5	H4	
URSSB-0P2	_	3/11/2000	12	142	< 0.054	< 0.054	< 5.4	< 27	< 56	4	H6	
URSSB-0P3		3/11/2000	6	148	-		< 5.9	< 29	< 59	3	G3	
URSSB-0P4	URS	3/11/2000	18 8	136 151			< 5.6 < 5.4	< 28 < 27	< 56 < 54	5 2	G3 A3	
URSSB-0P5	01.5	3/11/2000 3/11/2000	12	146	< 0.054	< 0.054	< 5.4	< 27	< 54	3	B3	
URSSB-0P6	-	3/11/2000	20	140	< 0.054	< 0.054	< 5.4	< 27	< 54	5	A6	
URSSB-0P7		3/11/2000	16	142		-	< 5.4	< 28	88	4	A2	
LIDCCD ODG	7	3/11/2000	8	149	_		< 5.6	< 28	< 56	3	D3	
URSSB-0P8		3/11/2000	18	139			< 5.5	< 28	< 55	5	D4	
Soil samples collected	in 2008 (Terra, 20			_			_	_	_			
	Terra	6/23/2008	5	155	-		<22	<56	<110	2	A5	
B2/MW-2	Associates	6/23/2008	15	145			<22	<55	<110	4	A5	
		6/23/2008	25	135			<22	<54	<110	6	A5	
URS-MW-1	URS	8/25/2008 8/25/2008	15 27.5	143 130.5	< 0.02 0.41	-	<10 <10			4 6	A2 A2	
		8/27/2008	15	130.5	< 0.02		<10			4	AZ A7	
URS-MW-2	URS	8/27/2008	27.5	131.5	< 0.02		<10	_		6	A7	
UDO L 5		8/26/2008	17.5	136.5	< 0.02		<10	_	_	5	G5	
URS-MW-3	URS	8/26/2008	27.5	126.5	< 0.02	_	<10			7	G5	
LIDC MIN A	LIDO	8/26/2008	12.5	141.5	0.17		<10		-	4	Н9	
URS-MW-4	URS	8/26/2008	30	124	0.12		<10		-	8	Н9	
URS-MW-5 ⁴	URS	11/18/2008	24	129	< 0.02		<10		-	N/A	N/A	
OTAO-IVIVV-O	511.5	11/18/2008	31.5	121.5	< 0.02		<10	-		N/A	N/A	
URS-MW-6 ⁴	URS	11/18/2008	21.5	131.5	< 0.02	-	<10			N/A	N/A	
-		11/18/2008	31.5	121.5	< 0.02		<10	-	-	N/A	N/A	
URS-MW-7 ⁴	URS	11/18/2008	26.5	126.5	< 0.02	-	<10			N/A	N/A	
		11/18/2008 8/25/2008	31.5 10	121.5 148	< 0.02 < 0.02	_	<10 <10		-	N/A 3	N/A B5	
		8/25/2008	30	128	0.02	-	<10			7	B5	
URS-SB-1	URS	8/25/2008	45	113	0.05	-	<10			10	B5	
		8/25/2008	75	83	< 0.02	_	<10			16	B5	
UDO OD O	LIDO	8/25/2008	10	147	< 0.02	-	<10			3	D5	
URS-SB-2	URS	8/25/2008	27.5	129.5	0.07	-	<10	-	-	7	D5	
URS-SB-3	URS	8/26/2008	17.5	137.5	0.05	-	<10		-	5	F2/F3	
010-00-0	0110	8/26/2008	22.5	132.5	0.07	1	<10		-	6	F2/F3	
URS-SB-4	URS	8/27/2008	17.5	150.5	< 0.02		<10	-	_	2	N/A	
		8/27/2008	30	138	< 0.02		<10	-	-	5	N/A	
LIDC CD O	LIDO	11/19/2008	21.5	134.5	< 0.02	-		-	-	6	N/A	
URS-SB-8	URS	11/19/2008	29 41.5	127	< 0.02				-	7 10	N/A	
Soil samples collected	in 2010 (Earallon	11/19/2008	41.5	114.5	< 0.02 U			-	_	10	N/A	
Jon Samples Conected	The 2010 (Faranon,	8/9/2010	10.5	143.5	<0.025	<0.03		_		4	N/A	
		8/9/2010	14	140	<0.025	<0.03		_	_	5	N/A	
		8/9/2010	19	135	<0.025	<0.03			_	6	N/A	
MW-17 ⁴	Farallon	8/9/2010	24	130	<0.025	<0.03				7	N/A	
		8/9/2010	29	125	<0.025	<0.03				8	N/A	
		8/9/2010	34.5	119.5	0.031	<0.03			-	9	N/A	
		8/9/2010	39	115	<0.025	<0.03			-	10	N/A	
		8/9/2010	10	145	<0.025	<0.03		-	-	4	N/A	
MW-18 ⁴	Farallon	8/9/2010	14	141	<0.025	<0.03			-	4	N/A	
		8/9/2010	19	136	<0.025	<0.03		-	-	5	N/A	
		8/9/2010 8/5/2010	24	131	<0.025	<0.03				6	N/A	
		8/5/2010 8/5/2010	4.5 9	152.5 148	<0.025 <0.025	<0.03 <0.03				2 3	D3	
MW-19	Farallon	8/5/2010	24	133	<0.025	<0.03	<2	 <50	<250	6	D3	
		8/5/2010	29	128	<0.025	<0.03		-		7	D3	
		8/6/2010	4.5	148.5	<0.025	<0.03		_	_	3	G2	
		8/6/2010	10	143	<0.025	<0.03		-	-	4	G2	
MW-20	Farallon	8/6/2010	14.5	138.5	<0.025	<0.03		-		5	G2	
1414A-TA	FaidilUff	8/6/2010	19.5	133.5	<0.025	<0.03				6	G2	
		8/6/2010	25	128	0.026	<0.03	<2		-	7	G2	
	<u> </u>	8/6/2010	29.5	123.5	<0.025	<0.03				8	G2	
		8/5/2010	1	158	<0.025	<0.03	6		-	1	A3	
		8/5/2010	11	148	<0.025	<0.03				3	A3	
SRO-1	Farallon	8/5/2010	16	143	<0.025	<0.03				4	A3	
		8/5/2010 8/5/2010	20 22	139 137	0.28 0.43	<0.03 <0.03	<2 <2	<50 <50	<250 <250	5 5	A3 A3	
		8/5/2010 8/5/2010	26	137	0.43	<0.03	<2	<50 	<250	6	A3	
		8/5/2010 8/5/2010	1	158	<0.025	<0.03	3	67	760	1	A3 A4	
		8/5/2010	5.5	153.5	<0.025	<0.03		-		2	A4 A4	
		8/5/2010	9	150	<0.025	<0.03		_		3	A4	
SRO-2	Farallon	8/5/2010	14	145	<0.025	<0.03		-	_	4	A4	
		8/5/2010	19	140	<0.025	<0.03			-	5	A4	
		8/5/2010	23.5	135.5	0.12	<0.03	<2	<50	<250	5	A4	
		8/5/2010	27	132	0.34	<0.03		-	-	6	A4	
	up Levels	·			0.05 (A)	0.03 (A)	100 (A)	2,000 (A)	2,000 (A)		N/A	



					VOCs (mg/kg) ¹		Gasoline-range	Diesel-range	Oil-range	Exca	vation
							Petroleum	Petroleum	Petroleum		
	Sample		Depth	Elevation			Hydrocarbons	Hydrocarbons	Hydrocarbons		Grid
Sample ID	Collected By	Sample Date	(feet bgs)	(feet NAVD 88)	PCE	TCE	(mg/kg) ²	(mg/kg) ³	(mg/kg) ³	Lift	Cell
		8/5/2010	1	157	<0.025	<0.03	610	140	270	1	C4
		8/5/2010	3	155	<0.025	<0.03	<2	<50	<250	2	C4
		8/5/2010	7	151	<0.025	<0.03		-		2	C4
CDO 2	Forelles	8/5/2010	13	145	<0.025	<0.03				4	C4
SRO-3	Farallon	8/5/2010	18 21	140 137	<0.025 0.057	<0.03 <0.03	 <2		 <250	5 5	C4 C4
	}	8/5/2010 8/5/2010	22.5	135.5	0.057	<0.03		<50		5	C4
	}	8/5/2010	27	135.5	0.06	<0.03				6	C4 C4
	-	8/5/2010	30	128	0.16	<0.03				7	C4
		8/6/2010	6	148	<0.025	<0.03				3	G3
	-	8/6/2010	12	142	<0.025	<0.03				4	G3
	ŀ	8/6/2010	17	137	<0.025	<0.03				5	G3
SR0-4	Farallon	8/6/2010	22	132	<0.025	<0.03	<2	<50	<250	6	G3
	ŀ	8/6/2010	27	127	<0.025	<0.03	-			7	G3
	ŀ	8/6/2010	30	124	0.038	<0.03				8	G3
		8/6/2010	3	152	<0.025	<0.03				2	F4
	l	8/6/2010	6	149	<0.025	<0.03	_			3	F4
		8/6/2010	11	144	<0.025	<0.03	7	<50	<250	4	F4
SR0-5	Farallon	8/6/2010	16	139	<0.025	<0.03	_			5	F4
		8/6/2010	21	134	<0.025	<0.03	_			6	F4
		8/6/2010	30	125	<0.025	<0.03	_			8	F4
		8/6/2010	5.2	148.8	<0.025	<0.03	<2	<50	<250	3	G4
		8/6/2010	12	142	<0.025	<0.03	<2	<50	<250	4	G4
		8/6/2010	15	139	<0.025	<0.03	<2	<50	610	5	G4
SRO-6	Farallon	8/6/2010	17	137	<0.025	<0.03	<2	70	870	5	G4
		8/6/2010	20.5	133.5	<0.025	<0.03	<2	<50	<250	6	G4
		8/6/2010	25	129	<0.025	<0.03	-	-		7	G4
		8/6/2010	30	124	<0.025	<0.03				8	G4
		8/6/2010	9	147	<0.025	<0.03	1,100	<50	<250	3	E3
		8/6/2010	12.5	143.5	<0.025	<0.03	<2	<50	<250	4	E3
000.7		8/6/2010	19	137	<0.025	<0.03	_	-	-	5	E3
SR0-7	Farallon	8/6/2010	22.5	133.5	<0.025	<0.03	<2			6	E3
		8/6/2010	26	130	0.046	<0.03				7	E3
		8/6/2010	30	126	0.08	<0.03	-			7	E3
	Farallon	8/6/2010	4	152	<0.025	<0.03	-	-		2	C2
		8/6/2010	8	148	<0.025	<0.03	_	-		3	C2
		8/6/2010	13.5	142.5	<0.625	<0.03	4	-		4	C2
		8/6/2010	14.5	141.5	<0.625	<0.03	<2.0	<50	<250	4	C2
SRO-8		8/6/2010	18	138	<0.025	<0.03	<2.0	-	-	5	C2
		8/6/2010	22	134	<0.025	<0.03	3	<50	<250	6	C2
		8/6/2010	23.5	132.5	0.15	<0.03	-			6	C2
		8/6/2010	26	130	0.16	<0.03	_			7	C2
		8/6/2010	29	127	0.19	<0.03	-			7	C2
		8/9/2010	3	155	< 0.025	<0.03	<2	_		2	B3/C3
	l	8/9/2010	8	150	<0.025	<0.03	<2	_		3	B3/C3
	l	8/9/2010	13	145	< 0.625	<0.03	_	_		4	B3/C3
SRO-9	Farallon	8/9/2010	17.5	140.5	<0.025	<0.03	<2	_		4	B3/C3
	raialion	8/9/2010	21.5	136.5	<0.025	<0.03	<2	_		5	B3/C3
		8/9/2010	26	132	0.037	<0.03	<2			6	B3/C3
		8/9/2010	29.5	128.5	0.057	<0.03	<2			7	B3/C3
		8/9/2010	1	153	<0.025	<0.03	-	-		2	G5/G6
		8/9/2010	7	147	<0.025	<0.03		-		3	G5/G6
		8/9/2010	10	144	<0.025	<0.03	<2	-		4	G5/G6
SRO-10	Farallon	8/9/2010	16	138	<0.025	<0.03				5	G5/G6
		8/9/2010	21	133	<0.025	<0.03	<2	-		6	G5/G6
		8/9/2010	23.5	130.5	<0.025	<0.03	-	-		6	G5/G6
		8/9/2010	29	125	<0.025	<0.03	<2	-		8	G5/G6
		8/9/2010	1	153	<0.025	<0.03	-	-		2	G6
		8/9/2010	5	149	<0.025	<0.03	-	-		3	G6
		8/9/2010	10	144	<0.025	<0.03	<2			4	G6
SRO-11	Farallon	8/9/2010	15	139	<0.025	<0.03				5	G6
		8/9/2010	20	134	<0.025	<0.03	<2			6	G6
		8/9/2010	25	129	<0.025	<0.03				7	G6
		8/9/2010	28	126	<0.025	<0.03	<2			7	G6
		8/9/2010	5	150	<0.025	<0.03				3	F6
		8/9/2010	8	147	<0.025	<0.03	<2			3	F6
		8/9/2010	13	142	<0.025	<0.03	_	-		4	F6
SRO-12	Farallon	8/9/2010	17	138	<0.025	<0.03	_	-		5	F6
		8/9/2010	21	134	<0.025	<0.03	<2	-		6	F6
		8/9/2010	23.5	131.5	<0.025	<0.03	_	-		6	F6
		8/9/2010	29.5	125.5	<0.025	<0.03	<2			7	F6
		8/9/2010	0.5	157.5	<0.025	<0.03	<2	280	3,100	1	C6
		8/9/2010	5.5	152.5	<0.025	<0.03	<2	<50	<250	2	C6
		8/9/2010	11	147	<0.025	<0.03	<2	<50	<250	3	C6
SR0-13	Farallon	8/9/2010	15.5	142.5	<0.025	<0.03	<2	<50	400	4	C6
- 		8/9/2010	20.5	137.5	<0.025	<0.03	<2	<s0< td=""><td><250</td><td>5</td><td>C6</td></s0<>	<250	5	C6
		8/9/2010	24.5	133.5	<0.025	<0.03	-	-		6	C6
		8/9/2010	29.5	128.5	<0.025	<0.03				7	C6
		8/10/2010	1.5	158.5	<0.025	<0.03				1	A5
		8/10/2010	6.5	153.5	<0.025	<0.03				2	A5
		8/10/2010	12	148	<0.025	<0.03	-			3	A5
SRO-14	Farallon	8/10/2010	17	143	<0.025	<0.03				4	A5
		8/10/2010	22	138	<0.025	<0.03				5	A5
		8/10/2010	25.2	134.8	0.035	<0.03				6	A5
	1	8/10/2010	29.8	130.2	<0.025	<0.03				6	A5
		0/ 10/ 2010	0.0	100.2	10.020	٠٥.٥٥				•	



					VOCs (mg/kg) ¹		Gasoline-range	Diesel-range	Oil-range	Excavation	
							Petroleum	Petroleum	Petroleum		
	Sample		Depth	Elevation			Hydrocarbons	Hydrocarbons	Hydrocarbons		Grid
Sample ID	Collected By	Sample Date	(feet bgs)	(feet NAVD 88)	PCE	TCE	(mg/kg) ²	(mg/kg) ³	(mg/kg) ³	Lift	Cell
		8/10/2010 8/10/2010	5	159 155	<0.025 <0.025	<0.03 <0.03				2	A6 A6
		8/10/2010	10	150	<0.025	<0.03				3	A6
SR0-15	Farallon	8/10/2010	15	145	<0.025	<0.03				4	A6
		8/10/2010	20	140	<0.025	<0.03				5	A6
		8/10/2010 8/10/2010	25 29.5	135 130.5	<0.025 <0.025	<0.03 <0.03				6 6	A6 A6
		8/10/2010	2	157	<0.025	<0.03		_		1	B5
		8/10/2010	7	152	<0.015	<0.03		-		2	B5
		8/10/2010	12	147	<0.025	<0.03				3	B5
SR0-16	Farallon	8/10/2010 8/10/2010	17 22	142 137	<0.025 <0.025	<0.03 <0.03				<u>4</u> 5	B5 B5
		8/10/2010	25.5	133.5	<0.025	<0.03				6	B5
		8/10/2010	29.5	129.5	0.039	<0.03	-	-		7	B5
		8/10/2010	1.8	155.2	<0.025	<0.03	2,800	130	<250	1	D5
		8/10/2010	5.5	151.5	<0.025	<0.03 <0.03	<2	<50	<250	3	D5 D5
SRO-17	Farallon	8/10/2010 8/10/2010	10.5 16	146.5 141	<0.025 <0.025	<0.03	<2 <2	<50 <50	<250 <250	4	D5
0.00 2.	. a.ae.i	8/10/2010	21	136	<0.025	<0.03	<2	<50	<250	5	D5
		8/10/2010	25	132	<0.025	<0.03	<2	<50	<250	6	D5
		8/10/2010	30	127	<0.025	<0.03				7	D5
SR0-18	Farallon	8/10/2010	2	155 151.5	<0.025	<0.03		-	-	2	E5
		8/10/2010 8/10/2010	5.5 2	151.5 155	<0.025 <0.025	<0.03 <0.03				2	E5 D5
SRO-19	Farallon	8/10/2010	5.5	151.5	<0.025	<0.03				2	D5
SR0-20	Farallon	8/10/2010	2	155	<0.025	<0.03				2	D5
		8/10/2010	6	151	<0.025	<0.03				2	D5
SRO-21 Soil samples collected in	Farallon n 2011 (Hart Crov	8/10/2010	6.5 11)	150.5	<0.025	<0.03				2	D5
HC-1-1	II ZOII (Hait Clow	8/13/2011	20	139	<0.05	<0.02	-			5	A4
HC-1-2	1	8/13/2011	22.5	136.5	0.092	<0.02	-			5	A4
HC-1-3		8/13/2011	25	134	0.36	<0.02	-			6	A4
HC-1-4	_	8/13/2011	27.5	131.5	0.46	<0.02	-			6	A4
HC-1-5 HC-1-6	_	8/13/2011 8/13/2011	30 32.5	129 126.5	0.43	<0.02 <0.02	-			7	A4 A4
HC-1-7	Hart Crowser	8/13/2011	35	124	0.74	<0.02	-		-	8	A4
HC-1-8	1	8/13/2011	37.5	121.5	0.92	<0.02	-			8	A4
HC-1-9		8/13/2011	40	119	1.10	<0.02	<5	<50		9	A4
HC-1-10	_	8/13/2011	42.5	116.5	0.41	<0.02	-			9	A4
HC-1-11 HC-1-12	-	8/13/2011 8/13/2011	45 47.5	114 111.5	2.30 1.80	<0.02 <0.02				10 10	A4 A4
HC-1-13	1	8/13/2011	50	109	0.07	<0.02	-			11	A4 A4
HC-2-1		8/13/2011	20	137	<0.05	<0.02		-		5	C4/D4
HC-2-2		8/13/2011	22.5	134.5	0.11	<0.02		-		6	C4/D4
HC-2-3	_	8/13/2011	25	132	0.29	<0.02	-	-		6	C4/D4
HC-2-4 HC-2-5	-	8/13/2011 8/13/2011	27.5 30	129.5 127	0.33	<0.02 <0.02				7	C4/D4 C4/D4
HC-2-6		8/13/2011	32.5	124.5	0.22	<0.02	_	_		8	C4/D4
HC-2-7	Hart Crowser	8/13/2011	35	122	0.23	<0.02				8	C4/D4
HC-2-8	_	8/13/2011	37.5	119.5	0.46	<0.02				9	C4/D4
HC-2-9	-	8/13/2011	40 42.5	117 114.5	0.60	<0.02 <0.02	<5	<50		9 10	C4/D4
HC-2-10 HC-2-11	_	8/13/2011 8/13/2011	42.5	114.5	1.20 0.58	<0.02				10	C4/D4 C4/D4
HC-2-12	-	8/13/2011	47.5	109.5	2.00	0.044		-		11	C4/D4
HC-2-13]	8/13/2011	50	107	0.11	<0.02	-	-		11	C4/D4
HC-3-1		8/13/2011	20	136	<0.05	<0.02				5	D2
HC-3-2 HC-3-3	-	8/13/2011 8/13/2011	22.5 25	133.5 131	0.13 0.16	<0.02 <0.02				6 6	D2 D2
HC-3-4	1	8/13/2011	27.5	128.5	0.16	<0.02				7	D2 D2
HC-3-5]	8/13/2011	30	126	0.18	<0.02	-	-		7	D2
HC-3-6]	8/13/2011	32.5	123.5	0.13	<0.02	-	-		8	D2
HC-3-7	Hart Crowser	8/13/2011	35	121	0.10	<0.02		-		8	D2
HC-3-8 HC-3-9	1	8/13/2011 8/13/2011	37.5 40	118.5 116	0.37 0.27	<0.02 <0.02	 <5	 <50		9	D2 D2
HC-3-10	†	8/13/2011	42.5	113.5	0.27	<0.02				10	D2
HC-3-11]	8/13/2011	45	111	0.05	<0.02		-		10	D2
HC-3-12]	8/13/2011	47.5	108.5	<0.05	<0.02				11	D2
HC-3-13		8/13/2011	50 50	106	0.91	0.087				11	D2
		10/10/2011 10/10/2011	50 55	108 103	0.0218 0.276	<0.0213 0.00624 J				11 12	A3 A3
		10/10/2011	60	98	0.000720 J	<0.0204				13	A3
URS-SB-9	URS	10/10/2011	65	93	<0.0126	<0.0189				14	A3
	5	10/10/2011	70	88	<0.0143	<0.0214				15	A3
		10/10/2011	75 80	83	<0.0151	<0.0226				16	A3
		10/10/2011 10/11/2011	80 50	78 106	<0.0142 <0.0117	<0.0213 <0.0175				N/A 11	A3 D2
		10/11/2011	55	101	<0.0111	<0.0173				12	D2
URS-SB-10	URS	10/11/2011	60	96	0.00160 J	<0.00145				13	D2
0.10 00 10	0110	10/11/2011	65	91	<0.0142	<0.0213				14	D2
		10/11/2011	70 75	86 81	<0.0148	<0.0221				15 16	D2
MTCA Method A Cleanu	L up Levels	10/11/2011	75	81	<0.00952 0.05 (A)	<0.0143 0.03 (A)	 100 (A)	2,000 (A)	2,000 (A)	16 N	D2 /A
2.1 Caroa / Cicario					3.55 (A)	5.55 (11)	100 (//)	_,000 (11)	2,000 (11)		, · ·



					VOCs (mg/kg) ¹		Gasoline-range	Diesel-range	Oil-range	Exca	vation
							Petroleum	Petroleum	Petroleum		
	Sample		Depth	Elevation			Hydrocarbons	Hydrocarbons	Hydrocarbons		Grid
Sample ID	Collected By	Sample Date	(feet bgs)	(feet NAVD 88)	PCE	TCE	(mg/kg) ²	(mg/kg) ³	(mg/kg) ³	Lift	Cell
		10/12/2011	35	118	0.00148 J	<0.0190				9	H2
		10/12/2011	40	113	0.000383 J	<0.0164		-		10	H2
		10/12/2011	45	108	<0.0112	<0.0168				11	H2
		10/12/2011	50	103	<0.0124	<0.0186				12	H2
URS-MW-8	URS	10/12/2011	55	98	<0.0124	<0.0186				13	H2
(SB-11)		10/12/2011	60	93	<0.0105	<0.0158				14	H2
		10/12/2011	65 70	88	<0.0104	<0.0156				15	H2
		10/12/2011	70 75	83 78	<0.0105 <0.0138	<0.0158 <0.0207				16 N/A	H2 H2
		10/12/2011 10/12/2011	80	73	<0.0138	<0.0207		 		N/A	H2
		10/12/2011	35	119	<0.0113	<0.0170		-		9	G4
		10/12/2011	40	114	0.00436 J	<0.0192				10	G4
		10/12/2011	45	109	0.00479 J	0.000403 J				11	G4
UD0 0D 40		10/12/2011	55	99	0.00606 J	0.000460 J				13	G4
URS-SB-12	URS	10/12/2011	60	94	0.00901 J	0.00120 J				14	G4
		10/12/2011	65	89	<0.0151	<0.0227			-	15	G4
		10/12/2011	70	84	<0.0159	<0.0239	-		_	16	G4
		10/12/2011	75	79	<0.0156	<0.0235			-	N/A	G4
		10/13/2011	35	119	0.0142	<0.0175				9	Н9
		10/13/2011	40	114	0.0140 J	<0.0210	-		_	10	Н9
		10/13/2011	45	109	0.00347 J	<0.0213			_	11	Н9
URS-SB-13	URS	10/13/2011	60	94	0.0647	0.000382 J				14	Н9
		10/13/2011	65	89	0.0861	<0.0204				15	H9
		10/13/2011	70	84	<0.0145	<0.0218	-	-	-	16	H9
		10/13/2011	75	79	<0.0149	<0.0223	-		-	N/A	H9
		10/11/2011	35	121	<0.00954	<0.0143				8	E4
		10/11/2011 10/11/2011	40 45	116 111	0.0541 0.0712	0.000659 J 0.00114 J				9 10	E4 E4
	URS	10/11/2011	50	106	0.0712	0.00114 J				11	E4
URS-SB-14		10/11/2011	55	101	0.105	0.00104 J	-			12	E4
0.00014	one.	10/11/2011	60	96	0.000312 J	<0.0142		<u></u>		13	E4
		10/11/2011	65	91	<0.00915	<0.0137	_			14	E4
		10/11/2011	70	86	<0.0137	<0.0206				15	E4
		10/11/2011	75	81	<0.0104	<0.0156	-		_	16	E4
		10/11/2011	35	125	0.0331	<0.0189				8	A6
		10/11/2011	40	120	0.00263 J	<0.0138	-		_	9	A6
		10/11/2011	45	115	<0.0128	<0.0191	-		-	10	A6
		10/10/2011	50	110	<0.0128	<0.0192				11	A6
URS-SB-15	URS	10/10/2011	55	105	<0.00851	<0.0128	_	-		12	A6
		10/10/2011	60	100	<0.0101	<0.0151			-	13	A6
		10/10/2011	65	95	<0.0140	<0.0210	-		-	14	A6
		10/10/2011	70	90	<0.0127	<0.0190	-		-	15	A6
		10/10/2011	75	85	<0.0119	<0.0179			-	16	A6
		11/14/2011	30	123	0.00880 J	<0.0191				N/A	N/A
		11/14/2011	35 40	118 113	0.00105 J 0.00310 J	<0.0177 <0.0196				N/A	N/A
		11/14/2011 11/14/2011	45	108	0.00310 J	<0.0196				N/A N/A	N/A N/A
URS-SB-16 ⁴	URS	11/14/2011	47.5	105.5	0.002703 0.000318 J	<0.0170				N/A	N/A
010-05-10	one.	11/14/2011	60	93	0.727	0.00308 J				N/A	N/A
		11/14/2011	65	88	0.772	0.000799 J				N/A	N/A
		11/14/2011	70	83	<0.0130	<0.0195				N/A	N/A
		11/14/2011	75	78	<0.0122	<0.0183			-	N/A	N/A
		11/15/2011	40	117	<0.00937	<0.0141			-	9	N/A
		11/15/2011	45	112	<0.00915	<0.0137	-		_	10	N/A
URS-SB-17	URS	11/15/2011	65	92	<0.0122	<0.0183			-	14	N/A
		11/15/2011	70	87	<0.0124	<0.0186				15	N/A
		11/15/2011	75	82	<0.0156	<0.0234				16	N/A
		11/17/2011	30	128	0.00590 J	<0.0218	-		-	7	C7
		11/17/2011	35	123	0.00560 J	<0.0174				8	C7
		11/17/2011	40	118	<0.0116	<0.0174				9	C7
		11/17/2011	45	113	<0.0159	<0.0238				10	C7
		11/17/2011	50	108	<0.0157	<0.0235				11	C7
URS-SB-21	URS	11/17/2011	60	98	<0.0104	<0.0156				13	C7
		11/17/2011	65	93	<0.0192	<0.0288				14	C7
		11/17/2011	70 71 F	88 86 F	<0.0203	<0.0304				15	C7
		11/17/2011	71.5 73	86.5 85	<0.0170 <0.0156	<0.0255 <0.0234				15 16	C7
		11/17/2011 11/17/2011	74.5	83.5	<0.0156	<0.0234	<u></u>	 		16	C7
		11/17/2011	80	78	<0.0198	<0.0294				N/A	C7
MTCA Method A Clean	up Levels	11/ 2V11	00	, ,	0.05 (A)	0.0214 0.03 (A)	100 (A)	2,000 (A)	2,000 (A)	1	I/A
zoanoa // oioan	. ,- ==				J.55 (A)	5.55 (A)	±00 (A)	2,000 (A)	2,000 (A)		<i>i</i> · · ·

Notes:

- 1 VOCs = Volatile organic compounds were analyzed using EPA SW-846 Method 8260B.
- $^{2}\,\mathrm{Gasoline}\text{-}\mathrm{range}$ petroleum hydrocarbons were analyzed using Ecology Method NWTPH-Gx.
- ³ Diesel- and oil-range petroleum hydrocarbons were analyzed using Ecology Method NWTPH-Dx.
- $^{\rm 4}\,\text{Soil}$ samples were collected from off-Property 5 to 20 feet to the west or south.
- Compound was not analyzed.
- < Compound was not detected at a concentration equal to or greater than the listed laboratory practical quantitation limit.

PCE = Tetrachloroethene

TCE = Trichloroethene

VOCs = Volatile organic compounds

feet bgs = feet below ground surface

J = estimated concentration less than the listed laboratory Practical Quantitation Limit (PQL); For purpose of this report J-flagged concentrations are considered not detected.

mg/kg = milligrams per kilogram

MTCA = Model Toxics Control Act (WAC 173-340).

(A) = MTCA Method A Cleanup Level (unrestricted land use)

N/A = Not Applicable

Bold font indicates that the compound was detected at a concentration greater than the listed PQL.

Shading indicates that the concentration exceeds the MTCA cleanup level.



Table 4

Chemical Analytical Data for Groundwater Samples Sterling Realty Organization Property at 10605 and 10619 NE 8^{th} Street Bellevue, Washington

			VOCs (µg/L) ¹									Gasolino rango	Diocol rongo	Oil rango
Sample ID	Sample Date	Depth (feet bgs)	PCE	TCE	cis-1,2- DCE	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl- benzene	Xylenes, total	Gasoline-range Petroleum Hydrocarbons (µg/L) ²	Diesel-range Petroleum Hydrocarbons (µg/L) ³	Oil-range Petroleum Hydrocarbons (µg/L) ³
	in 2000 (URS, 2000	<u> </u>					T	_	T	_				
URSSB-OP1	03/11/2000	NA	2.1	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<100	<25	<50
URSSB-OP3	03/11/2000	NA	1.7	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<100	<25	<50
	in 2008 and 2010 (1	1.0				100	T	
URS-SB-3	08/27/2008	NA	21	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<100		
	09/10/2008	NA	340	3.5	<1.0			<1.0	<1.0	<1.0	<1.0	<100	-	-
LIDO MIM 1	11/21/2008	NA NA	210	3.4	<1.0	-		<1.0	<1.0	<1.0	<1.0			
URS-MW-1	03/17/2010	NA	460	22	11			<1.0	<1.0	<1.0	<1.0	<50		-
ŀ	06/17/2010 08/24/2010	NA NA	320 430	9.6	1.2 6.1			<1.0	<1.0	<1.0	<1.0	<50 -		-
	03/17/2010	NA NA	<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<50		
URS-MW-2	06/17/2010	NA NA	<1.0	<1.0	<1.0		-	<1.0	<1.0	<1.0	<1.0	<50 <50		
UNG-WW-2	08/25/2010	NA NA	<1.0	<1.0	<1.0				-		-	-		-
	09/10/2008	NA NA	<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<100		
	11/21/2008	NA NA	3.9	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	-		-
URS-MW-3	03/17/2010	NA NA	<1.0	<1.0	<1.0		_	<1.0	<1.0	<1.0	<1.0	<50		-
UNU-WW-5	06/17/2010	NA NA	<1.0	<0.2	<1.0			<1.0	<1.0	<1.0	<1.0	<50		
	08/23/2010	NA NA	<1.0	<0.2	<1.0	-	_				-	-		_
MW-17 ⁴	08/24/2010	NA NA	14	1.8	2.2			_		_	_	_		
MW-18 ⁴	08/24/2010	NA	830	15	10			-		-		-		-
MW-19	08/25/2010	NA	33	1.1	<1.0			-		-		-		-
MW-20	08/25/2010	NA	4.6	<1.0	<1.0					-		-		-
B1/MW1	03/17/2010	NA	<1.0	<1.0	<1.0		-	<1.0	<1.0	<1.0	<1.0	<50		
	07/07/2008	NA	<0.2	<0.2			-	<0.2	<0.2	<1.0	<0.6	<100	<250	<500
B-2/MW-2	11/21/2008	NA	2.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0		-	-
,	03/17/2010	NA	<1.0	<1.0	<1.0		-	<1.0	<1.0	<1.0	<1.0	<50		
	06/17/2010	NA	<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<50		
	07/07/2008	NA	80	0.42				<0.4	<0.4	<2.0	<1.2	<100	<250	<500
	09/10/2008	NA NA	88	<1.0	<1.0	-		<1.0	<1.0	<1.0	<1.0	<100		-
B-3/MW-3	11/21/2008	NA	20	<1.0	<1.0	-		<1.0	<1.0	<1.0	<1.0			-
	03/17/2010	NA NA	68 44	<1.0	<1.0	-		<1.0	<1.0	<1.0	<1.0	<50 <50		
	06/17/2010	NA NA	50	<1.0	<1.0 <1.0	-		<1.0	<1.0	<1.0	<1.0			
	08/23/2010 07/07/2008	NA NA	<0.2	<1.0 <0.2				<0.2	<0.2	<1.0	<0.6	- <100		
-	11/21/2008	NA NA	1.9	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0		<250 -	<500
B-4/MW-4	03/17/2010	NA NA	<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<50		-
ŀ	06/17/2010	NA NA	<1.0	<1.0	<1.0		-	<1.0	<1.0	<1.0	<1.0	<50 <50		
Camples sellested	in 2011 (URS, 2011		\1.0	\1.0	\1.0			1.0	11.0	\1.0	V < 1.0	\50		
URS-MW-1	11/22/2011	29	114	4.36	1.47	<1.0	<1.0				I	I -		
URS-MW-2	11/21/2011	28.6	<1.0	<1.0	<1.0	<1.0	<1.0	-						
URS-MW-3	11/22/2011	28	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	_		-		-
	10/19/2011	+	<1.0	<1.0	1.33	<1.0	2.0						t	
URS-MW-6 ⁴		NA NA					\rightarrow		_	-		_		-
URS-MW-7 ⁴	10/19/2011	NA 72	12.4	<1.0	3.42	0.87 J	<1.0		-	-	-	-		-
	10/19/2011	73	<1.0	<1.0	<1.0	<1.0	<1.0		-	-	-			
LIDO MALO	10/19/2011	77	<1.0	<1.0	<1.0	<1.0	<1.0	-		-	-			
URS-MW-8	11/22/2011	70	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-			
	11/22/2011 11/22/2011	73 75.5	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0			-	-			
MW 40	, ,		<1.0							-	-			
MW-19	11/21/2011	29.2 25	31.0	0.140	0.140 J <1.0	<1.0 <1.0	<1.0 <1.0	-	-	-	-	-		-
MW-20	11/22/2011 11/29/2011	90	1.03	0.140 J	<1.0	<1.0	<1.0	-		-	-	-		
B1/MW-1	11/29/2011	90	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0		-	-	-			
	11/29/2011	75	<1.0	<1.0	<1.0	<1.0	<1.0			-	_			
B2/MW-2	11/29/2011	80	<1.0	<1.0	<1.0	<1.0	<1.0	-	_	_	_			
B3 ///// 3		27	23.7		<1.0	<1.0	<1.0						†	
B3/MW-3	11/22/2011 11/29/2011	75	<1.0	<1.0 <1.0	<1.0	<1.0	<1.0	-				-		
B4/MW-4		80	<1.0		<1.0	<1.0	<1.0			-	-			
URS-SB-9	11/29/2011 10/10/2011	77	<1.0 0.270 J	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0			-	_			
URS-SB-9 URS-SB-15		77	0.270 J <1.0	<1.0	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0			-	-	_	-	-
	10/10/2011	75		<1.0		<1.0 <1.0	<1.0 <1.0			-				
URS-SB-21	11/17/2011		<1.0		<1.0			 F (A)	1 000 (4)	700 (4)	1 000 (4)		 FOO (A)	 FOO (A)
IVITCA Me	thod A or B Cleanup L	_evei	5 (A)	5 (A)	16 (B)	200 (A)	5 (A)	5 (A)	1,000 (A)	700 (A)	1,000 (A)	800 / 1,000 ⁵ (A)	500 (A)	500 (A)

Notes:

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

 ${\sf PCE} = {\sf tetrachloroethene}$

TCE = trichloroethene feet bgs = feet below ground surface

J = estimated concentration μg/L = micrograms per liter

NA = not available

MTCA = Model Toxics Control Act (WAC 173-340). (A) = MTCA Method A Cleanup Level (unrestricted land use)

(B) = Standard Method B cleanup levels from CLARC. Table 5 includes the basis for cleanup levels.

Bold font indicates that the compounds was detected at a concentration greater than the listed practical quantitation limit (PQL).

Shading indicates that the compound was detected at a concentration that exceeds the MTCA cleanup level.



 $^{^{1}\}mbox{VOCs}$ = Volatile organic compounds were analyzed using EPA SW-846 Method 8260B.

 $^{^2\}mbox{Gasoline-range}$ petroleum hydrocarbons were analyzed using Ecology Method NWTPH-Gx.

 $^{^3}$ Diesel- and oil-range petroleum hydrocarbons were analyzed using Ecology Method NWTPH-Dx. 4 Groundwater samples were collected from wells located 5 to 20 feet west or south of the Property.

 $^{^5}$ The groundwater cleanup level is 1,000 μ g/L if benzene is not detected. If benzene is detected, the cleanup level is 800 μ g/L.

⁻ Compound not analyzed.

< Compound not detected at a concentration equal to or greater than the listed laboratory practical quantitation limit (PQL).

^{1,1,1-}TCA = 1,1,1-trichloroethane

^{1,2-}DCA = 1,2-dichloroethane

Table 5

Soil and Groundwater Cleanup Levels

Sterling Realty Organization Property at 10605 and 10619 NE $8^{\rm th}$ Street Bellevue, Washington

Contaminants of Concern	Media	Cleanup Level	Source				
Gasoline-range Petroleum Hydrocarbons		100 (mg/kg)					
Diesel-range Petroleum Hydrocarbons		2,000 (mg/kg)					
Oil-range Petroleum Hydrocarbons		2,000 (mg/kg)					
PCE	Soil	0.05 (mg/kg)	MTCA Method A, Unrestricted				
TCE		0.03 (mg/kg)					
Benzene		0.03 (mg/kg)					
Toluene		7 (mg/kg)					
Ethylbenzene		6 (mg/kg)					
Xylenes		9 (mg/kg)					
MTBE		0.1 (mg/kg)					
1,2-dichloroethane		0.0023 (mg/kg)					
cis-1,2-dichloroethene	Soil	0.076 (mg/kg)	MTCA Method B ¹				
trans-1,2-dichloroethene	Soli	0.48 (mg/kg)	MTCA Method B				
Vinyl chloride		0.00013 (mg/kg)					
Gasoline-range Petroleum Hydrocarbons		1,000 (µg/L)					
Diesel-range Petroleum Hydrocarbons		500 (μg/L)					
Oil-range Petroleum Hydrocarbons		500 (µg/L)					
MTBE		20 (μg/L)					
PCE	Groundwater	5 (µg/L)	MTCA Method A				
TCE		5 (µg/L)					
Vinyl chloride		0.2 (μg/L)					
1,2-dichloroethane		5 (µg/L)					
Benzene		5 (µg/L)					
Toluene		1,000 (µg/L)					
Ethylbenzene		700 (µg/L)					
Xylenes		1,000 (µg/L)					
cis-1,2-dichloroethene	Crowndwater	16 (µg/L)	MTOA Mathe d B. Oten dend Farm 1 2				
trans-1,2-dichloroethene	Groundwater	160 (µg/L)	MTCA Method B, Standard Formula ²				

Notes:

PCE = Tetrachloroethene

TCE = Trichloroethene

MTBE = methyl tert-butyl ether

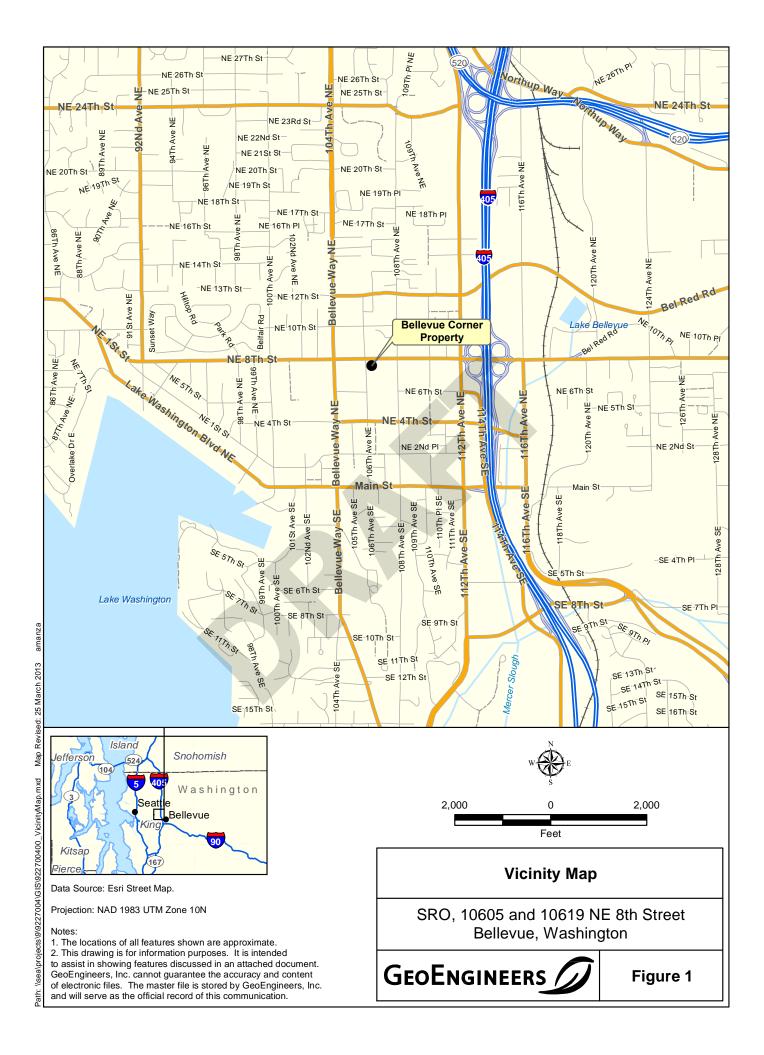
mg/kg = milligrams per kilogram

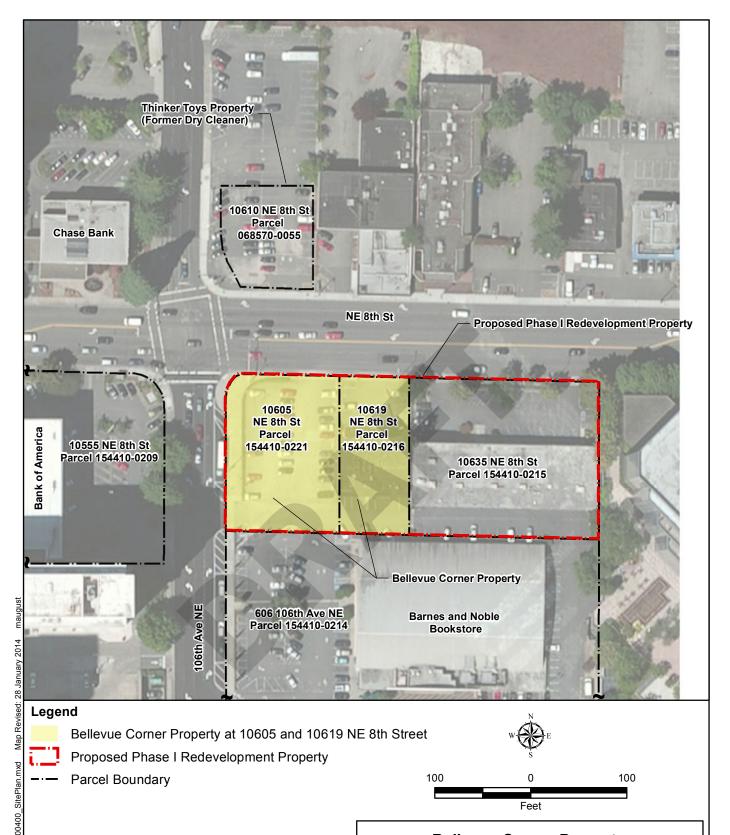
 μ g/L = micrograms per liter



¹Based on Protection of Groundwater

²Based on Potable Groundwater (non-carcinogenic)





Data Source: Aerial image from Microsoft, 2011. Parcel boundaries from King County, 2013.

Notes:

The locations of all features shown are approximate.

2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Bellevue Corner Property and Adjacent Parcels

SRO, 10605 and 10619 NE 8th Street Bellevue, Washington



Figure 2



- The locations of all features shown are approximate.
 This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files.

 The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

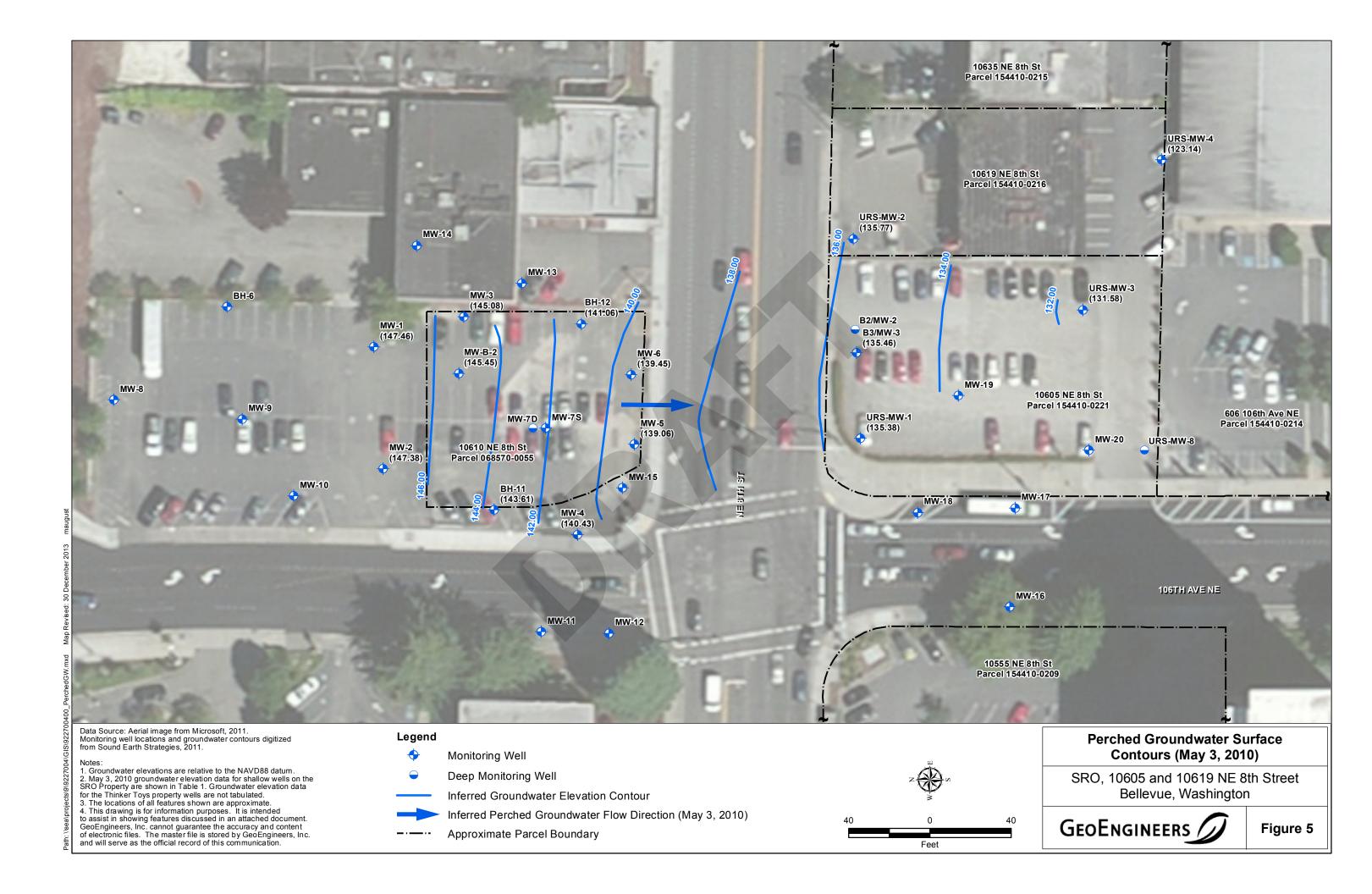
Reference: Masterplanning / Concept Design Package by Callison Architecture, February 2012.

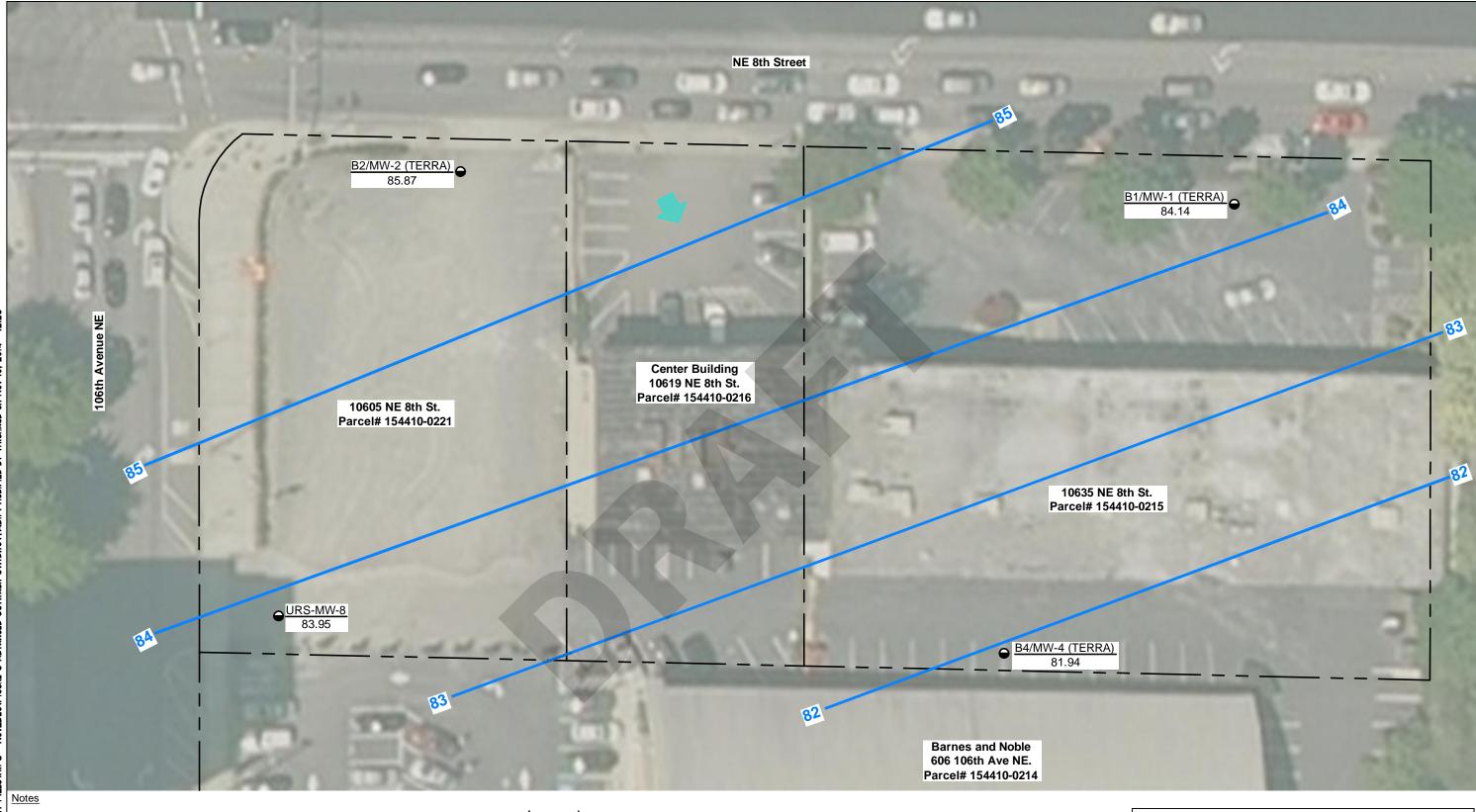


Conceptual Design of Proposed Phase I Development and Subsequent Phases II and III

SRO, 10605 and 10619 NE 8th Street Bellevue, Washington







- 1. Groundwater elevations are above mean sea level (NAVD88 datum)
- 2. October 21, 2011, groundwater elevation data are shown on Table 1.
- 4. The locations of all features shown are approximate.
- 3. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Background image obtained from Bing Images, 2012. Historical Site features from Sound Earth Strategies, Inc., 2011 figure.

Legend

Inferred Groundwater Contour

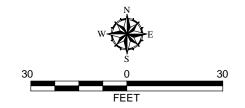


URS-MW-8 84.4

•

<u>Deep Well or Soil Boring Designation</u> Groundwater Elevation on October 21, 2011

Deep Monitoring Well Location



Advance Outwash Groundwater Elevation Contours (October 21, 2011)

SRO, 10605 and 10619 NE 8th Street Bellevue, Washington



Figure 6

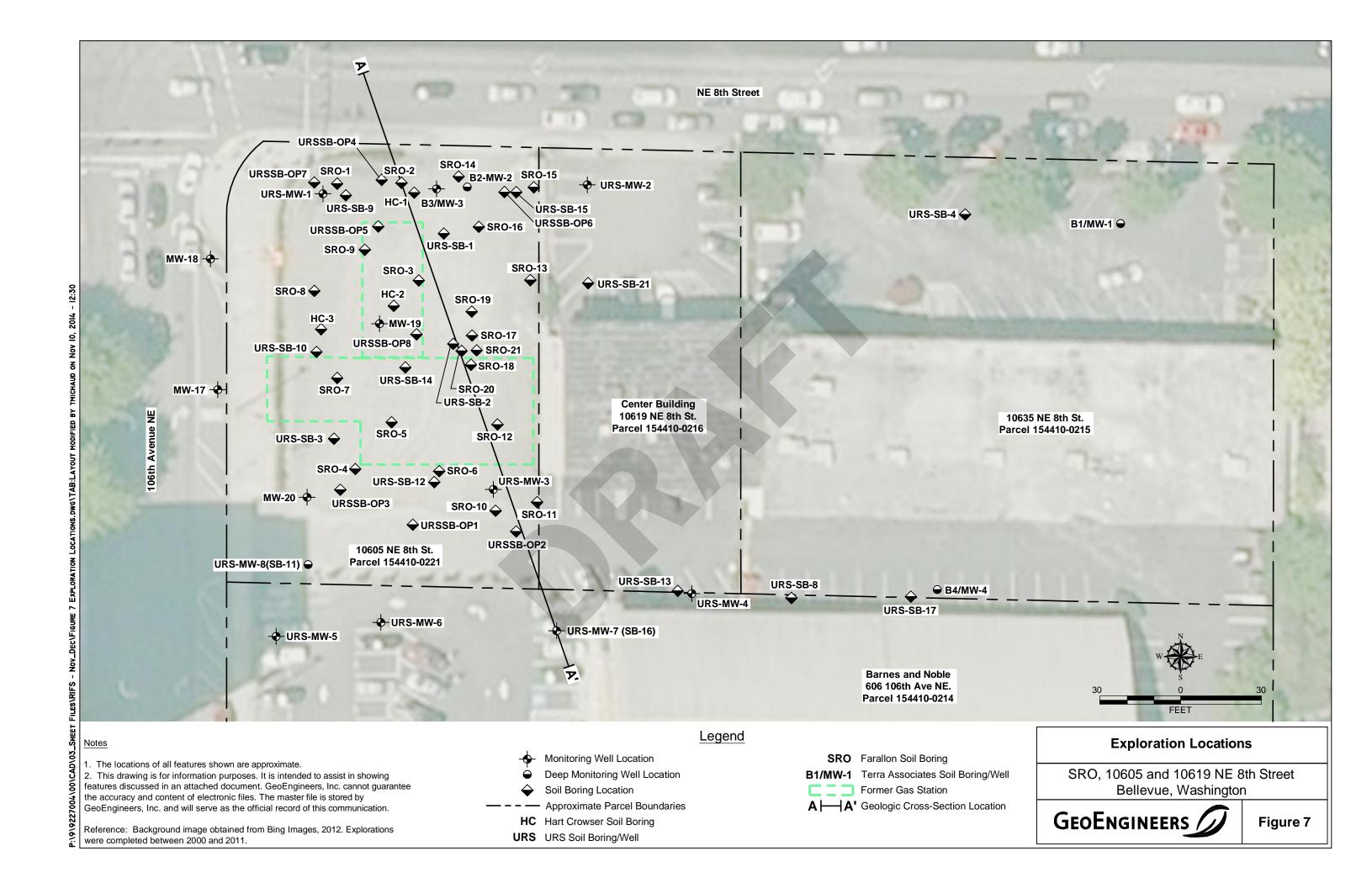


Figure 8

Former Gas Station

C Cross-Section

Reference: Background image obtained from Bing Images, 2012.

Legend

MW-8 Monitoring Well LocationSRO-9 Soil Boring Location

Approximate Soil Sample Depth

C-C' Cross-Section Location Shown on Figure 8AMSL Above Mean Sea Level (NAVD88 datum)

---?-- Inferred Geologic Contact

Planned Development Excavation Extent

Tetrachloroethene (PCE) Concentrations

Not Detected Above the Laboratory Reporting Limit

<0.05 mg/kg ad ≥0.05 to 2.3 mg/kg

MTCA Method A Cleanup Level = 0.05 mg/kg

——? — Limit Uncertain

HORIZONTAL SCALE: 1"= 40' VERTICAL SCALE: 1"= 20' VERTICAL EXAGGERATION: 2X



Notes

- 1. The locations of all features shown are approximate.
- 2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Cross-Section B-B' for the Former Thinker Toys site by Farallon Consulting, dated 11/02/10. Soil chemical data obtained between 2008 and 2011.

PCE Soil Contamination Cross Section C-C'

SRO, 10605 and 10619 NE 8th Street Bellevue, Washington



Figure 11

Reference: Figure 2 Exploration Location Plan by Golder Associates dated 3-27-13.



APPENDIX A. REPORT LIMITATIONS AND GUIDELINES FOR USE

This appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

GeoEngineers has completed this Cleanup Action Plan for the Bellevue Corner Property located at 10605 and 10619 NE 8th Street in Bellevue, Washington. This report has been prepared for the exclusive use of Sterling Realty Organization (SRO), their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and property. No one except Sterling Realty Organization, their authorized agents and regulatory agencies should rely on this environmental report without first conferring with GeoEngineers. Use of this report is not recommended for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made to the project or property after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

This report was prepared for the exclusive use of our Client SRO. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with SRO dated October 26, 2012 and generally accepted environmental practices in this area at the time this report was prepared.



Historical Information Provided By Others

GeoEngineers makes no warranties or guarantees regarding the accuracy or completeness of information provided by others. The information presented in this report is based on the above-described research. GeoEngineers has relied upon information provided by others in our descriptions of historical conditions and in our review of regulatory databases and files. The available data do not provide definitive information with regard to all past uses, operations or incidents at the property or adjacent properties.

Uncertainty May Remain Even After This Study is Completed

No study can wholly eliminate uncertainty regarding the potential for environmental conditions or contamination in connection with a property. There is always a potential that areas with contamination that were not identified during previous study exist at the Property or in the study area. Our interpretation of subsurface conditions is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Environmental Regulations Are Always Evolving

Some substances may be present in the vicinity of the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substances, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This plan is based on conditions that existed at the time the plan was prepared. The findings and conclusions of this plan may be affected by the passage of time, by man-made events such as construction on or adjacent to the subject property, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying this report for its intended purpose so that GeoEngineers may evaluate whether changed conditions affect the continued applicability of the report.

Soil and Groundwater End Use

The cleanup levels referenced in this plan are Property- and situation-specific. The cleanup levels may not be applicable for other properties or for other on-site uses of the affected soil and/or groundwater. Note that hazardous substances may be present in some of the on-site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject property or reuse of the affected soil or groundwater on-site to evaluate the potential for associated environmental liabilities. We are unable to assume responsibility for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject property to another location or its reuse on-site in instances that we did not know or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the subject property. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an informed opinion about subsurface conditions throughout the property. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

An Environmental Report Could be Subject to Misinterpretation

Misinterpretation of this plan by other design team members can result in costly problems. You could lower that risk by having GeoEngineers confer with appropriate members of the design and construction team after submitting the plan. Also retain GeoEngineers to review pertinent elements of the design and construction team's plans and specifications. Contractors can also misinterpret an environmental plan. Reduce that risk by having GeoEngineers participate in pre-bid and preconstruction conferences, and by providing construction observation.

Biological Pollutants

GeoEngineers' Scope of Services specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you need to know more about how these "Report Limitations and Guidelines for Use" apply to your project or property.

