Urban Environmental Partners llc

Diligent, responsive, and practical consulting

Technical Memorandum

September 26, 2024

To: Mr. Bill Fees, Pollution Liability Insurance Agency (PLIA)
Maria Barrientos, Barrientos | Ryan
Mr. Rex Richards, Sellen Construction

From: John R. Funderburk, Urban Environmental Partners llc (UEP)
Roy K. Kuroiwa, RKKPE, LLC

RE: **Cleanup Action Plan**
Interbay Property Redevelopment – Pickleball at the Palms
3435 15th Avenue West, Seattle, WA
Interbay Rising North LLC

INTRODUCTION

This Technical Memorandum (Memo) has been prepared to provide the Washington State's Pollution Liability Insurance Agency (PLIA) with a description of the selected remedial cleanup action plan (CAP) to be completed as a final remedial solution at the Interbay property planned development known as Pickleball at the Palms (Property or Site), located at 3435 15th Avenue W, in Seattle, Washington as shown on Figure 1 – Vicinity Map and Figure 1B - Site on 1908 Topography Map. The Site is planned for submittal to PLIA's Technical Assistance Program (TAP) in early 2025. The selected remedy was assembled as a series of tested, applicable and readily available technologies easily integrated with development construction.

This CAP details the appropriate remedial actions, including long term monitoring and contingency actions, for site development and use as a future sports court facility with workers and commercial occupants. In summary, the CAP includes details regarding:

1. Contaminated soil excavation, handling and off-site permitted disposal.
2. Contingency plan for the potential discovery of unknown underground storage tanks (UST) during mass excavation.
3. Installation of a compatible vapor barrier and passive gas venting system into the capillary break, and a concrete foundation slab as a barrier to direct contact, and to prevent potential Vapor Intrusion (VI) into the future building.
4. Compliance Monitoring Plan (CMP) that includes both groundwater and indoor air sampling and a barrier inspection program.

5. Recording of a Property Environmental Covenant (EC) that includes institutional and engineered controls requirements.

As shown on Kane Figure 2 – Site Plan and Features in 2014, the Property contains a former small Espresso Kiosk structure in the northern portion of the Property, which has been converted into a kitchen for a tiny homes' village. The Property also contains two remnant roof structures (canopies) from a former self service car wash in the central portion of the Property. Under a temporary lease with the Low Income Housing Institute (LIHI), a Tiny Homes and RV Park village known as the LIHI Salmon Bay Village community has been built. Numerous recreational vehicles (about 20 RVs) and about 10 tiny homes presently occupy most of the Property under LIHI administration. The LIHI lease expires in 2025, and the Salmon Bay Village will vacate the Property, and development will begin.

As shown on Figure 1 and Figure 1B, the Property originally existed on the south shore of an intertidal bay (Interbay) between the southern reach of Salmon Bay and Smith Cove. Consequently, the Property contains significant fill soil zones ranging between about 7 and 24 feet in depth. As shown on the 1950 and 1966 Sanborn Maps, and repeated on UEP Figure 2, the historic locations of at least three gasoline service stations with USTS and fueling islands are shown on the north, central and south areas of Property in the time frames between the 1930s through the 1970s. These gas station and car wash operations have resulted in isolated areas of petroleum impacted soil and impacted deep groundwater on the Property. The Property location and previous layout with past structures and businesses circa 2014 are shown on UEP Figure 2. The locations of the past removal of three USTS in the Property North end are shown on Shannon and Wilson Figure 2 (S&W, 1994) and on Geotech Consultants Plate 2 Figure (Geotech, 1990).

SUMMARY OF INVESTIGATIONS AND ENVIRONMENTAL SITE CONDITIONS

A series of investigations were performed on the Site beginning in 1990 with a UST removal/closure and impacted soil cleanup in the north end. An additional four sequential investigations were performed by different consultants in 2007, 2011, 2014, and 2016. In 2024, UEP performed limited data gaps work related to soil gas and groundwater conditions. Several Phase I and Phase II assessments were performed by various firms (see Reference Section at the end of the Memo) that resulted in a comprehensive site soil and groundwater summary report prepared by G-Logics – Soil and Groundwater Sampling Report (G-Logics, 2016). This 2016 G-Logics soil and groundwater report is considered a comprehensive characterization assessment and data summary. A copy is provided in Attachment A and referenced as the Site Remedial Investigation (RI) report, hereafter referenced as the Site Remedial Investigation (RI) Report. All previous investigation location points are shown on UEP

Figure 2 and also on G-Logics Figure 7 (UEP Figure 3) from the attached G-Logics RI report.

Shallow and Deep Soil Conditions

Shallow and deep soil environmental quality conditions are best summarized in the G-Logics RI Report Figure 7 (UEP Figure 3) which provides a plan and cross-section profile view of the location of soil borings and soil data results. As shown on the figure, soil with petroleum impacts above and below Ecology's MTCA Method A cleanup levels (CULs) are present on the north, central and southern ends of the property and shaded with a beige color. Please note that several soil results (4) on the Figure are indicated in red diamonds (◆) with a blue annotation (Lab). These soil samples were above the CUL for methylene chloride, which is a typical lab contaminant. Consequently, these data for these samples can be discarded and ignored. The beige shaded areas on the figure show petroleum detections and match the historic locations of the three auto service and gas dispensing stations on the property. Please also note that only on the north end of the Property (the North PCS Excavation Area), there is an isolated area with two samples (B-15W-6:6 at 6 feet bgs, and B15W-5:10 at 10 feet bgs with isolated small areas of petroleum contaminated soil (PCS) above MTCA CULs both in the shallow zones of the property, planned for mass excavation during development.

Regardless of the concentrations of petroleum contaminants in the property soil, where soil is excavated and waste soil is generated during development, the impacted soil e.g., shaded areas on G-Logics Figure 7(UEP Figure 3) will be managed as part of this CAP and through the guidance of the CMP. The location of any impacted soil that remains on site after development will be recorded in an Environmental Covenant (EC) and addressed through institutional controls, as described in the EC.

Deep Groundwater Conditions

- As presented in the G-Logics RI, the groundwater occurrence is first encountered approximately 20-feet below ground surface (bgs). Several rounds of well installation and sampling data is assembled on UEP Figure 2 and G-Logics Figure 7(UEP Figure 3) and in UEP Table 1, and discussed below to provide an understanding of groundwater quality conditions.
- In 1994, Shannon and Wilson initiated groundwater quality sampling with the installation of monitoring wells MW-1 and MW-2, both located on the north end of the property as shown on UEP Figure 4. Lab results were non-detect (ND) for both wells, providing an upgradient extent to the gasoline impacted groundwater zone (defined by wells GLB-2 and MW-3A/B).
- A Phase I and II performed in 2007 (Adapt, 2007a and b) presents several grab groundwater samples results from seven temporary geoprobe locations. Results of these data indicate that groundwater was only slightly above Ecology's CULs

exists in the northern end of the property at two probes GP-12 and GP-14. Remember that these samples are 2007 temporary grab samples which are generally skewed high due to the sample collection methodology.

- In 2011, GeoEngineers Inc, (GEI) installed one boring/well labeled MW3A/B (aka MW-3B). This well was screened deep between 40 and 50 feet (BGS) as shown on UEP Figure 4.
- In 2014, Kane Environmental performed another limited site investigation and installed three permanent monitoring wells. All three wells (KHSA-1 through -3) contained low concentrations of site COCs (TPH, BETX and lead) at either non-detect (ND) or below CUL concentrations. KHSA-2 is downgradient of the north end of the property and confirms that COCs have not migrated off site above any applicable CULs.
- In 2016, G-Logics prepared a supplemental (data gaps) soil and groundwater remedial investigation (RI) and installed an additional three monitoring wells GLB-1 through -3. The wells were distributed across the property in the north, central and south ends. Only GLB-2 in the north end contained GRO exceeding the CUL.
- UEP performed the most recent groundwater sampling in 2024 to fill final data gaps and determine current conditions. Based on previous data, the UEP focus was on the north end where historically gasoline impacts were detected above MTCA CULs. The following wells were sampled: GLB-2 and MW-3B/A (middle of impact zone) and MW-6 (just downgradient of the impact zone), as shown on Figure 4. The historic Kane monitoring well KHSA-2 could not be located. As shown on Table 1, the results of the 2024 sampling indicate that recent well development, purging and sampling results show the permanent wells in the impact-zone contain gas concentrations below the CULs. In addition, the downgradient wells KHSA-2 and MW-6 contain gas concentrations of <50 and 110 ug/L respectively, well below the CUL of 800 ug/L.
- In summary, the latest GW data from permanent wells show no exceedance of CULs in the north end of the Property, and none off-site in the downgradient direction.

Groundwater in the North End of Property The area of groundwater impact potentially above CULs remains in a limited area in the north end of the property. Since summer of 2024, UEP has been sampling these north end wells to determine the current groundwater quality conditions since the last round of sampling in 2016.

Table 1 presents a summary groundwater sampling results, and in particular of the monitoring wells representative of the north end: MW-1 and MW-2 just upgradient of the impacted zone; GLB-2 and MW-3A/B considered the wells central to the impacted zone; and KHSA-2 and MW-6 considered downgradient and off site compliance wells. Monitoring well MW-6 was recently discovered as part of Ecology's VCP Site ID #1426

(ref. Adapt report 2011). The most current sampling event in August 2024 indicates that north-end groundwater contains no TPH impacts above the MTCA Method A CULs, although some TPH detections are present above laboratory detection limits. Additional future rounds of groundwater monitoring will be performed as part of the site groundwater Compliance Monitoring Plan, described later.

Deep Soil Gas Conditions

Given the site history with several gas stations, the confirmed TPH-impacted soil areas, and planned excavation depths for development, deep soil gas samples UEP-1 through UEP-4 were collected from the central and north end of the property (Figure 2) to match the elevation just below the planned occupied areas of the future play court facility. Figure 2 also depicts an overlay showing a plan view of the planned development, which includes an enclosed Sports Court Building on the north half and unenclosed, surface Parking on the south half of the property. Deep soil gas samples all located on the north half of the Property ranged from 10- to 15-feet bgs, which matches the range of depths for TPH-impacted soil (UEP Figure 3 - G-Logics Figure 7).

Soil gas analytical results are summarized in the UEP Table 2. For all but one sample, benzene, ethylbenzene, toluene and xylene (BETX) compounds were detected along with one tetrachloroethylene (TCE) detection. At all deep soil gas sample locations, there were no detections of VOCs above the applicable screening levels (SLs). Although initial soil gas results are below applicable SLs, the development nonetheless includes mitigation features to address the VI pathway, as described later.

Property Continued- and Future-Use Scenarios

The final Development Design permit plans have been submitted to the City (Attachment B, partial set) and indicate that the Property is split between the north half that supports an enclosed Sports Court Building and the south half that supports at-grade parking. Minor asphalt parking surface demolition and excavation grading (average 1- to 2-feet in excavation areas) across the site will be performed to establish a level working surface. As shown on G-Logics Figure 7 (UEP Figure 3) approximately 5 to 8 feet (bgs) of additional excavation grading will be implemented when the installed showing system is completed. The planned grade elevation is about 50- feet (NAVD88) in the north area. The process will involve filling behind a retaining wall that will be constructed along the west side of the property. The two-story sports facility will have a total of sixteen pickleball courts, ten inside and on the ground floor, and six on the open roof of the building. As shown on UEP Figure 5, each end of the sports facility will support spaces for seating, restrooms, small kitchen and elevators/stairs. There are no planned living spaces, and only a handful of commercial attendants will be on site at

one time. An outside, paved parking area is shown on the south end at the Bertona Street entrance.

The floor for the facility will be constructed as a slab-on-grade structure. No underground floors are included. The first floor will be recessed down about six feet from the east grade of 15th Avenue West. In Attachment B, the Site Plan, Schematic Design Figure (Sheet No. A1.01) and the Level 1 Shoring Plan (Sheet S2.0) prepared by AXIS/GFA shows the planned layout for the structures for the sports complex. The topography Figure by Bush, Roed, & Hitchings shows the planned cut/fill dimensions for excavation for the North End of the development where the PCS exists in Area 1.

As previously described, the current use of the property is for temporary housing and consists of approximately 12 tiny homes that are sitting above the existing asphalt paving on one or two cinderblock footings. The property also supports approximately 20 RV parking locations. As part of the development, the entire property will be vacated and structures demolished ahead of development.

SELECTED CLEANUP ACTION PLAN (CAP)

This section summarizes the preferred cleanup action plan for the future pickleball court facility and Property.

Prescriptive Remedy Steps for Site Development

Excavation plans reviewed by UEP show rough excavation depths and limits on the Property to be completed and reach an approximately 50 to 52 feet elevation (NAVD88) across the site. Along the eastern side of the Property (higher than west side) there will be an approximately 5 to 7 feet bgs cut on the north, and about 7 feet bgs cut on the south end, as shown on the plans in Appendix B. Also shown on the Figures, some filling will occur on the west side of the property, behind a newly constructed retaining wall. The groundwater table is approximately 20- to 25-feet bgs, so little to no dewatering or collected water management is expected during development. Additional site development construction activities that are a function of the Site cleanup are as follows:

Existing Building and Property Demolition. As part of the larger redevelopment project, all existing buildings, surface paving and utilities on the property will be demolished before beginning development construction. A hazardous materials survey will be conducted before building demolition. Any necessary abatement of hazardous materials would be performed by a qualified contractor.

Construction Stormwater Management and Community Environmental Controls. The construction plans and permit will include an approved Erosion and Sediment Control plan and practices to control construction stormwater, dust and noise. However, since the groundwater occurrence is greater than 20-feet bgs, no dewatering or collected water handling and disposal is anticipated.

Existing Monitoring Wells. All Site groundwater resource/monitoring wells are expected to be properly abandoned under a written protocol before excavation activities begin. Wells will be decommissioned by a licensed well driller or under the supervision of a Washington State Professional Engineer (PE), in accordance with the Ecology Water Well Construction Act (1971), Revised Code of Washington 18.104 (WAC 173-160-460). Existing monitoring wells required for the CMP will be protected and preserved, or relocated and replaced before development for future monitoring. Any damaged wells will either be repaired or decommissioned and then replaced per state regulations. Details of protecting existing wells during development will include the integration of existing wells into either the new concrete slab/floor or asphalt-paved area. Monitoring well GLB-2 will be decommissioned due to the well's low recovery rates.

Element 1 – Development Soil Excavation and Off-Site Disposal of Contaminated Soil

Mass excavation of soil will occur across most of the property during development, ranging from approximately 7-feet in the north end, to about 20-feet bgs in the south end. This grade - level excavation will remove the known PCS area in the north end of the Property as shown on UEP Figures 3 and 4. Beyond the design excavation depths, no additional excavation or 'chasing' of impacted soil is anticipated or planned, unless the environmental field agent observes conditions that warrant additional excavation beyond the design grade limits. Soil from the grade-level excavation may exhibit petroleum odors, sheen or other significant contamination conditions observed in the field. It is possible that one or more USTs may be discovered and removed along with associated PCS. Some sidewall and bottom samples will be collected from across the finished excavation and graded site prior to construction of the foundation and analyzed for Site COCs. Details of the excavation and sampling efforts will be documented in a Cleanup Construction Action Report (CAR).

Contaminated Media Management Plan (CMMP). All property soil generated during development excavation and grading is assumed to be petroleum impacted, and will be handled as Ecology Category 2 and Category 3 Soil per Ecology Tables 12.1 and 12.2 (Attachment C). Therefore, the permitted project includes a Contaminated Media Management Plan prepared by UEP (Attachment C). The CMMP details the appropriate means and methods

of handling contaminated media: a) contaminated soil during development ground improvements; b) impacted groundwater and stormwater, if needed; c) lead-based paint and other hazardous materials during demolition; and d) HAZWOPER or other appropriate health and safety protocols. The CMMP will also provide the means and methods to segregate contaminated soil from noncontaminated soil, avoid cross-contamination, and minimize the amount of generated soil requiring off-site disposal. The plan also includes a contingency plan to manage and handle unexpected discoveries, such as buried tanks, waste or drums, if encountered.

Element 2 – Design and Installation of a Vapor Intrusion (VI) Mitigation Barrier

The future development building is a sports facility for pickleball play, consistent with commercial use and occupancy for the zoning (SM-D-95). The building design is two story with the first floor founded below the existing ground level, with sports courts on the first floor and on the roof of the building. The southern half of the property will be surface at-grade parking. Minor concentrations of TPH and BETX will remain in shallow and deep soil and deep groundwater that are just at or below the MTCA Method A and B (commercial workers) CULs and SLs, therefore the building will be equipped with features to mitigate the potential VI pathway.

Vapor Intrusion Mitigation Elements – Moisture and Vapor Barrier, Capillary Break with Passive Gas Venting, and Concrete Slab. UEP engineers worked with the development team to include a VI mitigation system that includes three mitigation elements – a redundant controls and mitigation system – to eliminate the VI pathway. The foundation design and mitigation elements were designed and stamped by licensed professional engineers (Attachment B). The VI mitigation system includes the following elements:

1. Moisture and Vapor Barrier. To mitigate or prevent TPH and benzene vapor intrusion concerns into the future building, a layer of Drago Wrap 20-mil is selected for underslab protection. The entire slab will be fitted with Drago Wrap, which functions as both a moisture and compatible chemical vapor barrier. A short section of wrap will also run along the short, vertical walls of the foundation. Waterproofing protection, where needed, will be provided by Voltex DS product.
2. Capillary Break and Passive Gas Collection and Venting. The building subslab is designed with an approximate 8-inch thick gravel capillary break located just below the moisture and vapor barrier and concrete slab. The capillary break will be fitted with a 4-inch diameter perforated PVC pipe to collect and convey trapped gases and eventually travel to the building roof through a 6-inch diameter vent pipe. The discharge of the vent pipe is designed to be at least 2-feet above the average breathing zone (e.g., standing person on the roof).

3. Concrete Slab-on-Grade Barrier and Cap. The continuous, concrete slab on grade is the 'foundation' or base of the overall VI mitigation system, and acts both as a vapor barrier and a physical barrier ('Cap') from human direct contact with underlying soil and groundwater. To ensure continued performance, the concrete slab Cap and barrier will be periodically inspected and results reported on an established schedule.

Element 3 – Groundwater Compliance Monitoring Plan

Geology and Hydrogeology Conditions. The Property is located in the Puget Lowland between the Cascade Mountains to the east and the Olympic Mountains to the west, proximal to the shores of the Puget Sound. More specifically, the subject site lies with the Interbay area of Seattle, a low lying saddle located between Queen Anne and Magnolia hills to the east and west, respectively. The site is located about one-quarter mile to the south of the Lake Washington Ship Canal, and one half mile north of Elliot Bay.

Numerous soil borings across the Property show a fill layer of silt and sand with occasional anthropogenic debris ranging in depth from 7-feet to over 20-feet bgs. The historic, tidal contact occurred below the fill elevation and was a tidal marsh area between Salmon Bay and Smith Cover as shown on Figures 1 and 1B. The cross-sections in G-Logics Figure and UEP Figure 4 illustrate the anticipated depth of fill across the site from South to North. Groundwater is generally found at between 22- to 25-feet bgs, just at or slightly below the historic tidal channel and marsh.

Groundwater Compliance Monitoring Plan (CMP). A detailed CMP will be prepared for PLIA's review and approval. The CMP will include details of a groundwater monitoring plan, including monitoring schedule and field and laboratory methods. The use of silica gel cleanup (SGC) preparation method is warranted for this site based on observations of apparent biogenetic interferences by a laboratory chemist (Adapt, 2011). The appropriate use of SGC for this project will be detailed in the CMP, including its appropriate use due to historic organic nature of the tidal zone (Site is in a historical tidal marsh area of Salmon Bay), laboratory evidence provided by a chemist, and the use of data results with and without SGC.

A CMP typically consists of three types of compliance monitoring identified for pre- and post-remedial cleanup actions performed under MTCA (WAC 173-340-410): protection, performance, and confirmation monitoring. A paraphrased definition for each is presented below (WAC 173-340-410[1]).

Protection Monitoring—To evaluate whether human health and the environment are adequately protected during construction and the operation and maintenance period of an interim action or cleanup action. Protection monitoring techniques will be detailed in the construction and field agent's HAZWOPER plan.

Performance Monitoring—To document that the interim action or cleanup action has attained cleanup standards. Performance monitoring will include the following wells: upgradient monitoring wells MW-1 and MW-2 and wells GLB-2 and MW-3A/B within the impacted plume area. One monitoring event from summer 2024 established groundwater analytical results (Table 1) below CULs. Sampling will continue for these wells for another three quarterly events and results shared with PLIA.

Confirmation Monitoring—To evaluate the long-term effectiveness of the interim action or cleanup action once cleanup standards or other performance standards have been attained. Confirmation wells are downgradient of the impacted plume area and include KHSA-2 and MW-6. Performance monitoring well MW3-A/B will be added to these well type once compliance with groundwater CULs have been confirmed.

Groundwater Contingency Action. If any performance or compliance wells report COC concentrations above the CULs, then additional steps will be taken to evaluate the results (e.g., purge and resample the subject well). An appropriate contingency step will also include the consideration and design of injection of insitu chemical reduction (ISCR) reagents to enhance natural biodegradation and attenuation of the impacted zone. Details of a contingency action plan will be provided in the CMP.

Element 4 – Future Vapor Intrusion (VI) Compliance Monitoring Plan including Mitigation Barrier Inspection Plan

- Indoor and Ambient Air Sampling Plan. A separate VI Compliance Monitoring Plan (VI CMP) will detail tasks and procedures, including quality controls, that will evaluate and confirm the (incomplete) Vapor Intrusion (VI) pathway and potential for indoor exposures at the new sports facility. The VI CMP will rely on: a) the planned remedial steps above are implemented; and b) the continued use of the building as a commercial space. As VI is the primary exposure pathway of potential concern at this time, the VI CMP will utilize a multiple-lines-of-evidence approach to evaluate potential exposures associated with the VI pathway. The main components of plan are as follows:
- One or two indoor air (IA) and ambient air sample locations
- Air samples collected during variable, seasonal conditions. The focus of sampling will be during colder seasons, especially when outdoor temperatures are falling (e.g., fall or early winter).
- Continuous measurement of indoor, ambient, and barometric pressures during the sampling periods. Vapor intrusion or VI sampling will only proceed when the interior building pressure is at least equal to or preferably less than the subslab pressure.

- Perform a thorough inspection of the interior space (work activities, inventory of chemicals) to eliminate any potential chemical vapor sources to indoor air. Remove any suspect materials or chemicals from the building.
- VI Barrier Inspection Plan. The VI CMP will also include a barrier inspection plan that details the visual inspection of the new slab-on-grade concrete foundation. The inspection plan will include inspections for slab cracks, new penetrations or other observations that may require follow up and modifications to the indoor air sampling plan. The plan will include a PLIA approved check list.

Contingency Action Plan for VI Pathway. A contingency plan for IA sampling results that are at or above the IA CULs involves a progressive use of action steps that are generally followed by an IA sampling event. These steps will continue until two rounds of IA results are collected that comply with the IA CULs.

1. Reinspect the concrete floor surfaces and inventory the space. Note any changes during this inspection. Repair or replace any noted concerns, such as a crack in the wall or storage of new chemicals in the space. Consider an epoxy coating (10-mil dry film thickness) on the concrete floors or walls.
2. Perform additional rounds of IA sampling in accordance with the VI CMP. If the IA results are above the CULs, then continue with:
3. Retrofit the existing passive gas venting system by installing an electric blower. The retrofitted system will create a minor, negative pressure within the capillary break zone (e.g., sub-slab depressurization system or SSDS) across the entire building and actively remove captured gasses in the capillary zone.
4. Perform two additional rounds of IA sampling in accordance with the VI CMP. Meet with PLIA to review the results and possibly develop a plan for additional site characterization (identify what has changed) and possible mitigation measures.

Element 5 – Property-Specific Environmental Covenant and Requirements

- An environmental covenant will be prepared with PLIA and recorded with the County to document site conditions, restrictions, and institutional controls. The EC will remain with the property until the Site receives an unconditional No Further Action determination from Ecology. The EC will include, at a minimum, the following restrictions and requirements. The EC will include more details on these conditions and requirements.
- Maintain commercial land use (e.g., residential users restricted).
- Containment of shallow and deep soil via continued presence of concrete slab and asphalt paving for parking.

- Vapor controls, including no new enclosed structures unless they incorporate a vapor mitigation system.
- Restriction on groundwater use.
- Exhibits which include a groundwater CMP and a VI CMP and barrier inspection plan.

CONCLUSION OF SELECTED CLEANUP ACTION PLAN (CAP)

It is UEP's opinion that this Cleanup Action Plan, including prior investigation findings and recent 2024 groundwater monitoring results, demonstrate that the Site either complies or will comply with cleanup standards of Ecology's Model Toxics Control Act. This CAP intends to utilize and take advantage of a planned commercial development that is schedule to begin in 2025/26.

The component parts of the selected remedial action will address potential, future Site commercial uses and human health impacts with a combination of source reduction (impacted soil excavation), groundwater attenuation and long term monitoring, and potential VI exposures through engineered controls. Further, groundwater and VI pathways include contingency actions should monitoring detect concentrations that exceed relevant CULs or SLs.

This Memo is intended to present new Site soil and groundwater data that supplements past Site characterization reports. In addition, this Memo presents a description of the selected cleanup action plan that is proposed to address residual impacted media and provides a contingency remedial measure to address the potential Indoor Air exposure pathway at the site, if confirmed by additional monitoring.

We look forward to any comments or questions and your opinion from review of the remedial approach presented in this document.

John R Funderburk

John Funderburk, MSPH
Principal, Managing Partner

Roy Kuroiwa

Roy Kuroiwa, PE
Project Engineer

Figures

Figure 1 – Property and Vicinity Map
Figure 1B – Site Location in 1908
Kane Figure 2 – Site Plan, and Features in 2014
1950 Sanborn Map, Volume 11, Sheet 1626
1966 Sanborn Map, Volume 11, Sheet 1626
Shannon and Wilson Figure 2 – Site and Exploration Plan, November 1994

Geotech Consultants, Plate 2 – Site Exploration Plan/Excavation Area, November 1990
UEP Figure 2 – Site Pan an Exploration Locations through 2024
UEP Figure 3/G-Logics Figure 7 – Soil Areas and PCS Volume Estimates
UEP Figure 4 – North End Groundwater Monitoring Wells and Cross-section
UEP Figure 5/Axis-GFA Site Plan

Tables

UEP Table 1 – Groundwater Lab Data Summary
UEP Table 2 – Deep Soil Gas Measurements
G-Logics Table 1 – Soil Sample Analyses Summary – Interbay Property
G-Logics Table 2 – Groundwater Depth and Sample Analysis Summary – Interbay Property
Ecology Tables 12.1 and 12.2 – Guidelines for Reuse of PCS

Attachments

A – G-Logics RI Report, *Soil and Groundwater Sampling*, Interbay Property, June 29, 2016.
B – AXIS Architects, *Building Permit Set, Vapor Barrier Specs*, and *Site Schematic Design and Level 1 Shoring Plans*, for Pickle at the Palms, Axis/GFA, 2023.
C – Ecology Tables 12.1 and 12.2 from *Guidance on Reuse of Petroleum Contaminated Soil*, and UEP *Contaminated Media Management Plan*, April 29, 2024.
D – Lab Reports for Groundwater Sampling

REFERENCES:

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Kane, 2014a. Phase I Environmental Site Assessment, prepared by Kane Environmental, Inc., February 10, 2014.

Kane, 2014b. Limited Phase II Environmental Site Assessment, prepared by Kane Environmental, Inc., February 10, 2014.

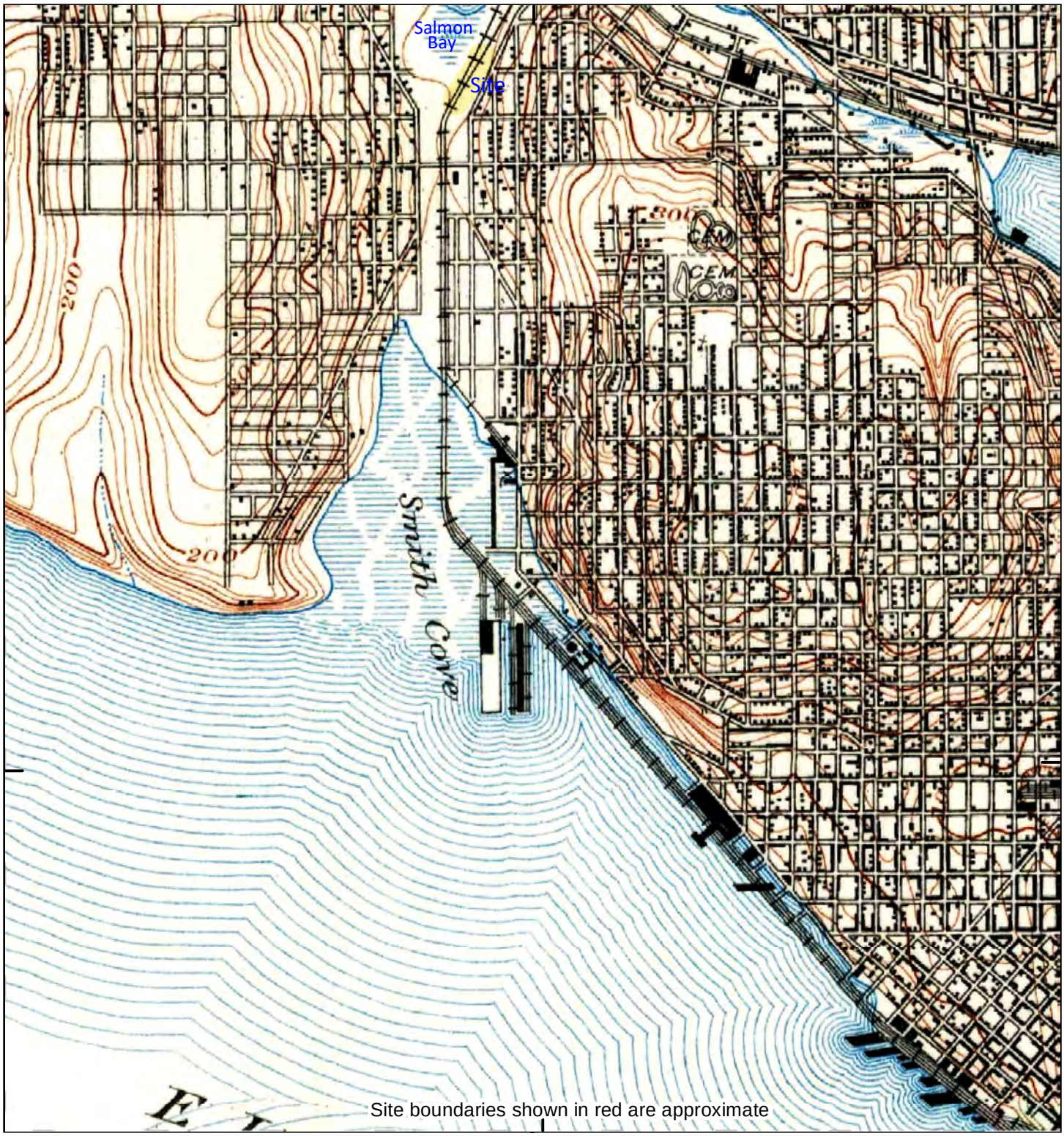
G-Logics, 2016. *Soil and Groundwater Sampling Report – Interbay Property,* prepared by G-Logics Inc., 2016.

FIGURES

From Phase I
Environmental Site Assessment
3435 15th Avenue West
Seattle, Washington

Figure 1
Vicinity Map

122°22'30"W



122°22'30"W

1908	0 Distance in Miles 1 1: 24,000 (1"=2,000') NAD 1983 UTM Zone 10N	Site information: 1502 15th Ave W Seattle, WA 98119
Unified maps show subdued modern topo features where corresponding maps of the same year were not published.	Urban Environmental Partners, LLC HIG #2084672 completed: 08/30/2024	

Zone	Topographic Map Name	Publisher	Map Size	Base Map	Aerial Photo Topo Updates Photo Year	Inspected	Revised
All	Seattle, WA	USGS	15' x 15'	1908	--	--	--

Figure 1B - Site in 1908

LEGEND

Approximate Location of Property Line

N

0 125 250

Approximate Scale in Feet

KANE ENVIRONMENTAL INC

Phase I
Environmental Site Assessment
3435 15th Avenue West
Seattle, Washington

Figure 2

Site Plan

Site Features in 2014

1950 Certified Sanborn Map

Certification # D0DE-4F08-ABD2

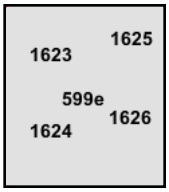
Site Name: BB Property
Address: 3435 15th Ave W
City, ST, ZIP: Seattle WA 98119
Client: Geo Engineers, Inc.

EDR Inquiry: 2984408.3
Order Date: 2/7/2011 12:38:03 PM
Certification # D0DE-4F08-ABD2

Copyright: 1950

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

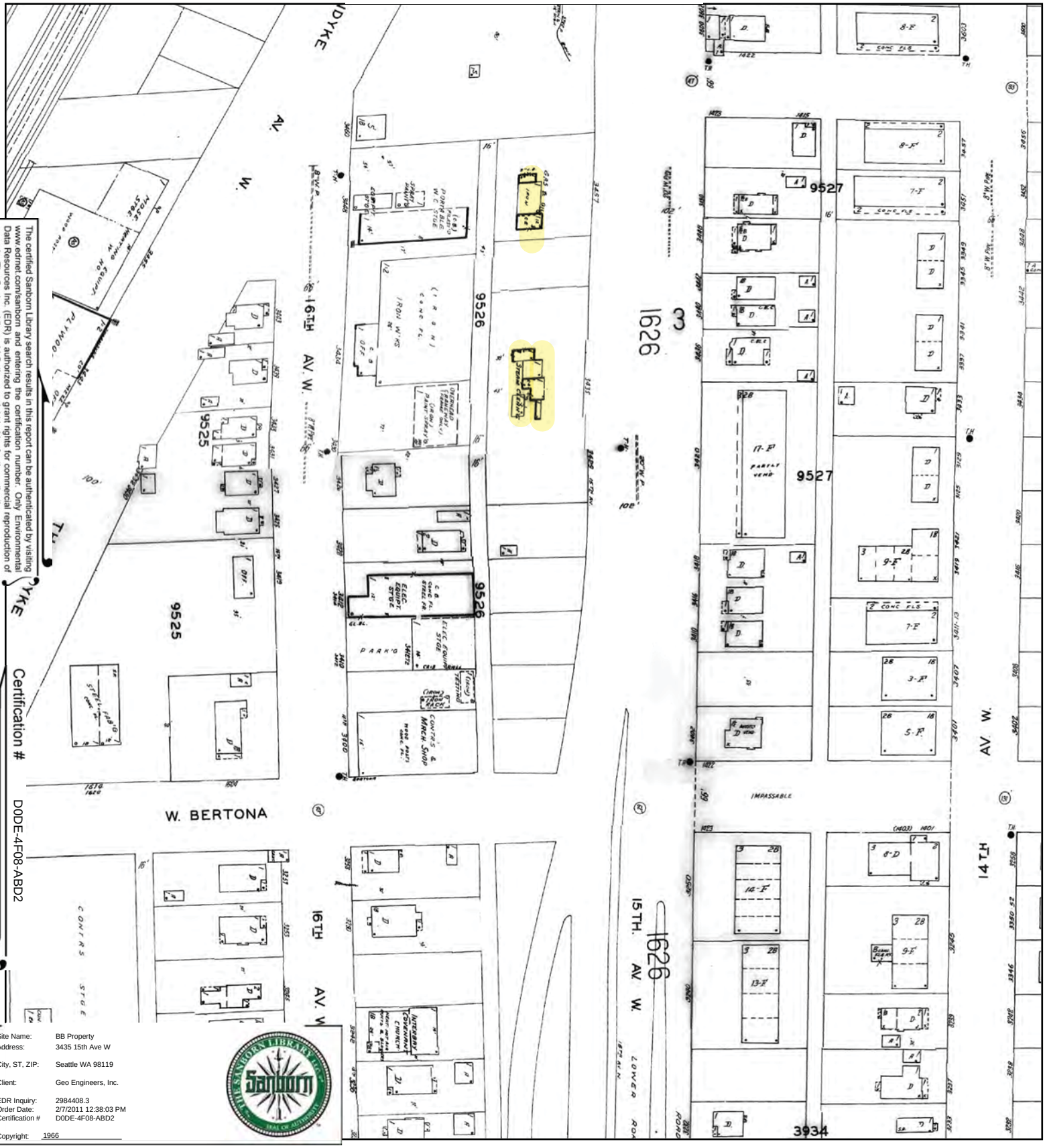
0 Feet 150 300 600



Volume 5, Sheet 599e
Volume 11, Sheet 1623
Volume 11, Sheet 1624
Volume 11, Sheet 1625
Volume 11, Sheet 1626

N

1966 Certified Sanborn Map

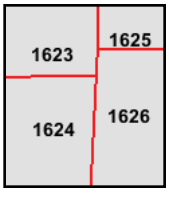


Certification # D0DE-4F08-ABD2

Site Name:	BB Property
Address:	3435 15th Ave W
City, ST, ZIP:	Seattle WA 98119
Client:	Geo Engineers, Inc.
EDR Inquiry:	2984408.3
Order Date:	2/7/2011 12:38:03 PM
Certification #	D0DE-4F08-ABD2
Copyright:	1966

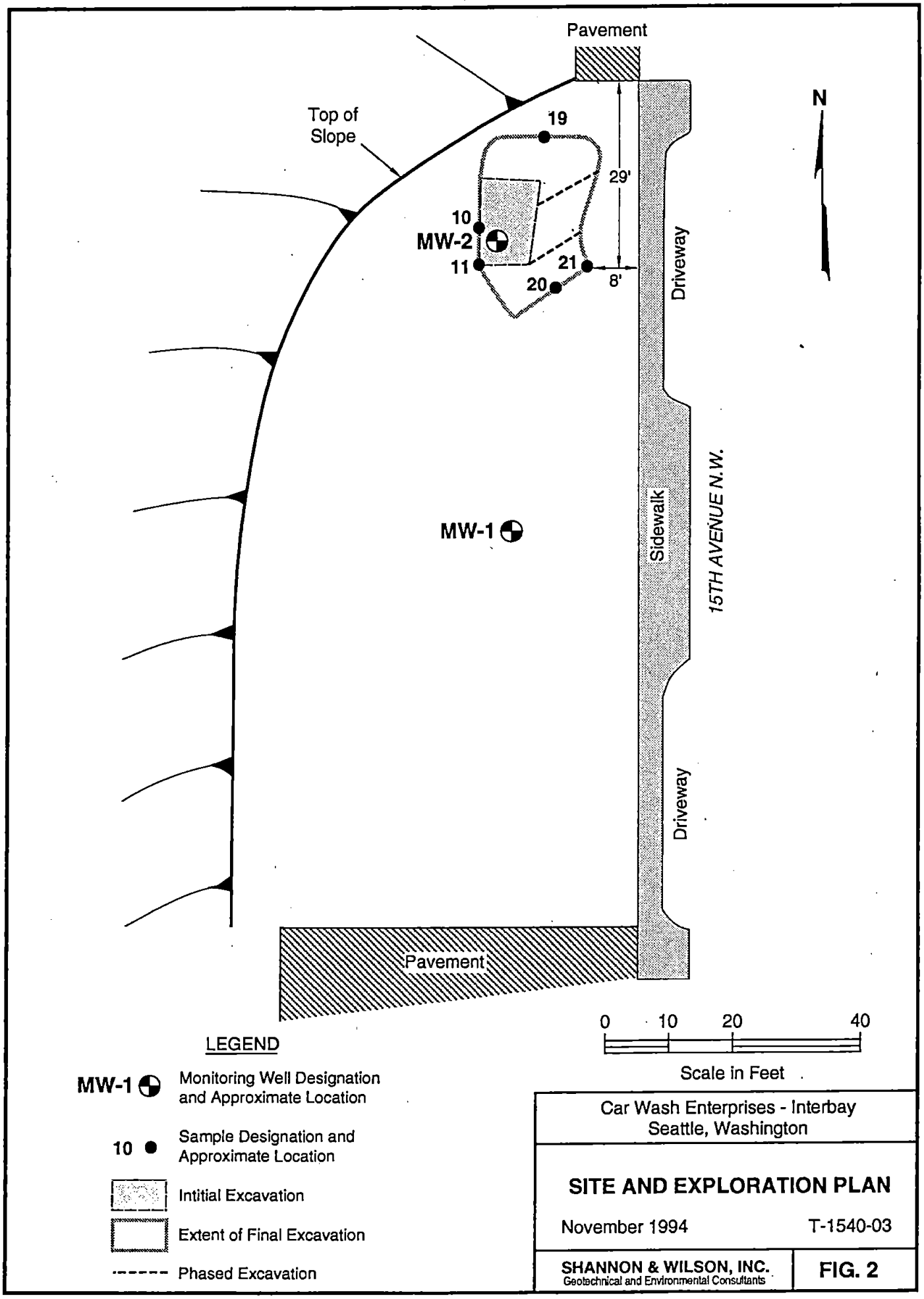
This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600



Volume 11, Sheet 1623
Volume 11, Sheet 1624
Volume 11, Sheet 1625
Volume 11, Sheet 1626

N



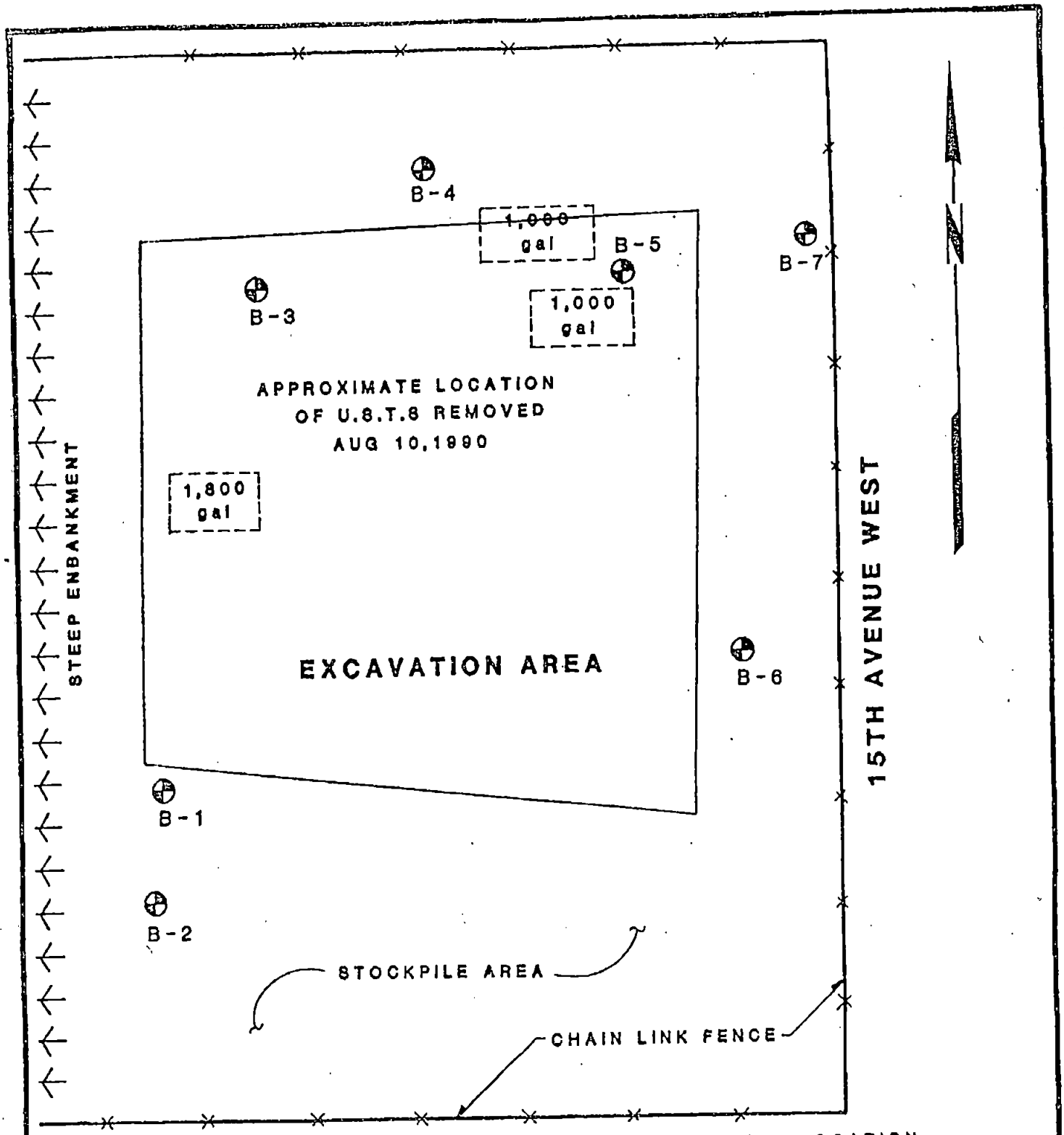
Car Wash Enterprises - Interbay
Seattle, Washington

SITE AND EXPLORATION PLAN

November 1994 T-1540-03

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 2

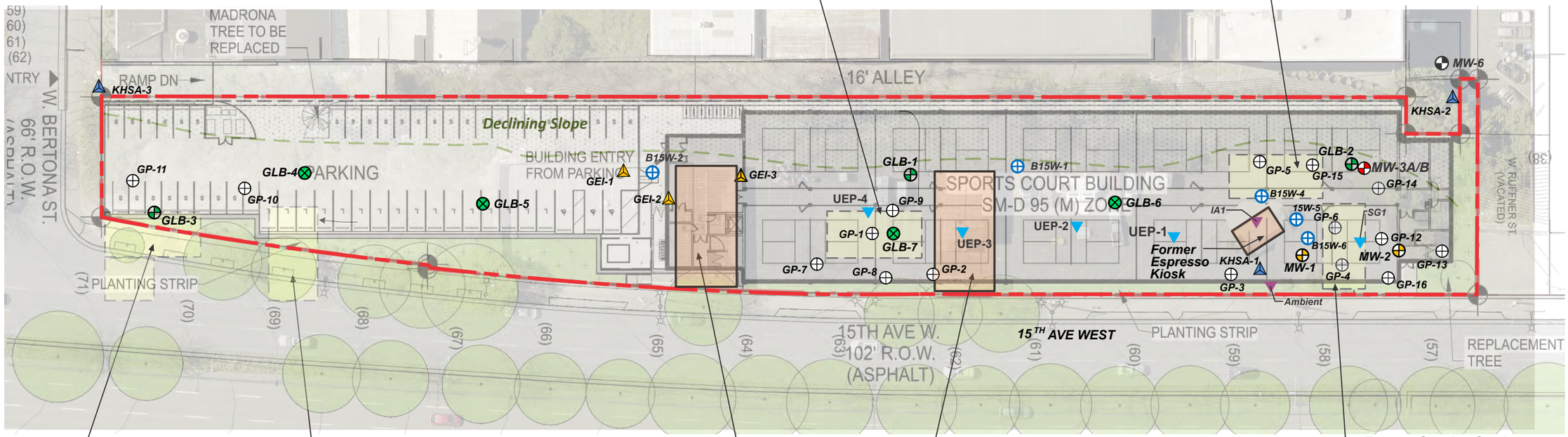


CAR WASH FACILITY

GEOTECH CONSULTANTS

SITE EXPLORATION PLAN
CAR WASH ENTERPRISES
3435 15TH AVE. W.
SEATTLE, WASHINGTON

Job No.:	Date:		Plate:
0188	NOV 1990		2



Legend

MW-1	Monitoring Well (Shannon & Wilson, 1994)
B15W-2	Geoprobe Boring (Environmental Partners, 2003)
GP-10	Geoprobe Boring (Adapt Engineering, 2007)
MW-3A/B	Monitoring Well (GeoEngineers, 2011)
MW-6	Monitoring Well (Adapt, 2011)
	Former Building
	Existing Structure
GEI-1	Hollow-stem Auger Boring (GeoEngineers, 2011)
KHSA-1	Hollow-stem Auger Boring (Kane, 2014)
GLB-1	Monitoring Well (G-Logics, 2016)
GLB-7	Geoprobe Boring (G-Logics, 2016)
	Property Boundary (King County Property Records)

CULc	Commercial IA Cleanup Level (1.1 µg/m^3)
SLc	Commercial Screening Level (36.7 µg/m^3)
	IA-1 and Ambient Sample
	Soil Gas Samples, UEP1-4 and SG-1

N

0 50 100

APPROXIMATE SCALE IN FEET

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Barrientos Interbay Property
3435 15th Avenue West
Seattle, WA

Figure 2
Site Features Diagram and Exploration Locations

g-logics

Legend

GLB-3
Monitoring Well (G-Logics, 2016)

GLB-4
Geoprobe Boring (G-Logics, 2016)

MW-1
Monitoring Well (SWI, 1994)

B15W-2
Geoprobe Boring (EPI, 2003)

GP-10
Geoprobe Boring (Adapt, 2007)

MW
Monitoring Well (GEI, 2011)

GEI-1
Hollow-stem Auger Boring (GEI, 2011)

KHSA-1
Hollow-stem Auger Boring (Kane, 2014)

Contaminated, > MTCA

Impacted, < MTCA

Soil Sample, contaminants not detected

Soil Sample, contaminant concentrations less than MTCA cleanup levels

Soil Sample, contaminant concentrations above MTCA cleanup levels

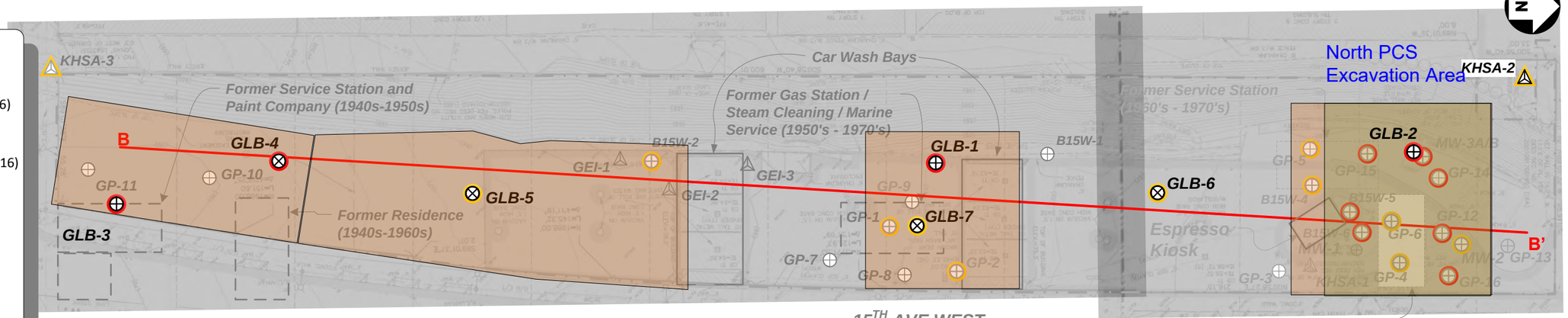
"Lab" - Data is Lab Artifact for Methylene Chloride

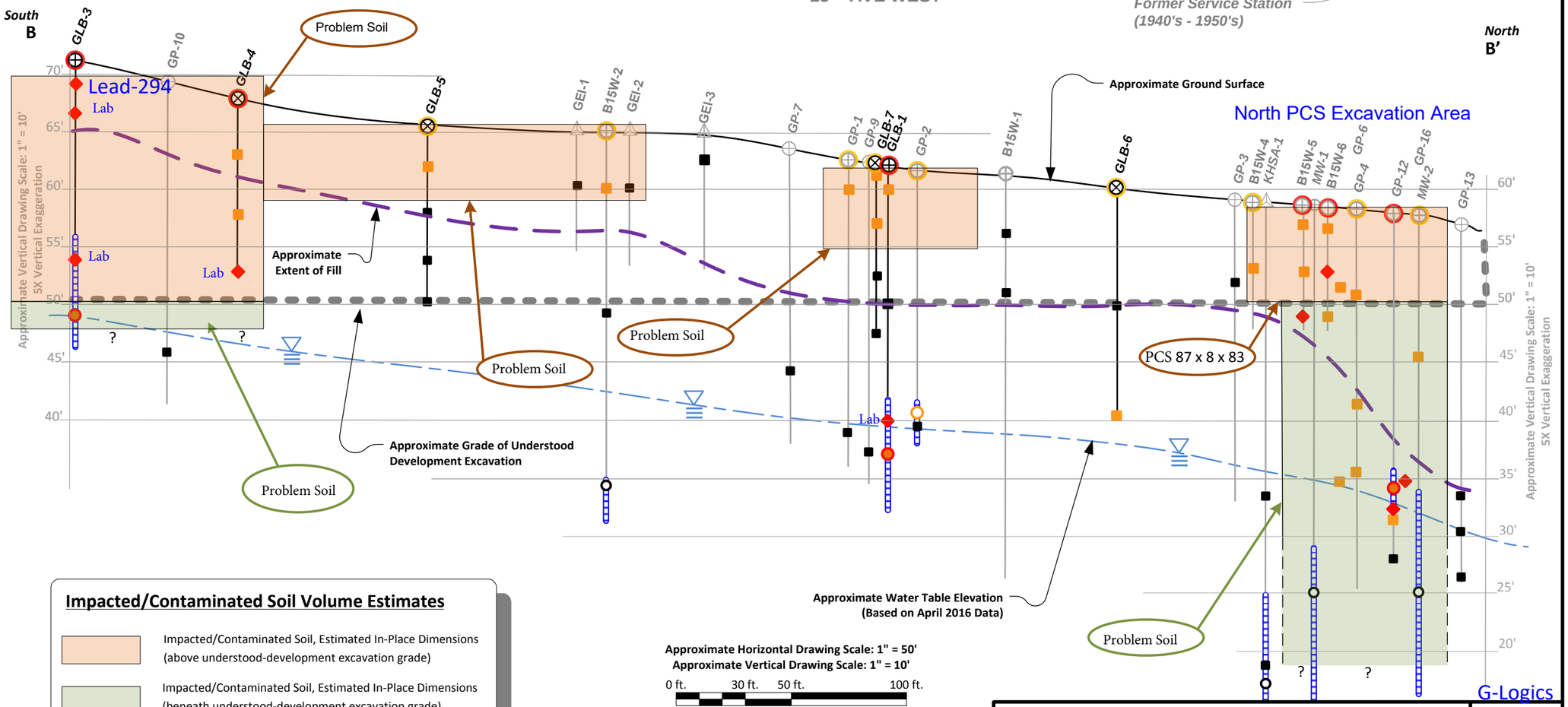
Groundwater Sample, no contaminants detected

Groundwater Sample, contaminant concentrations less than MTCA cleanup levels

Groundwater Sample, contaminant concentrations above MTCA cleanup levels

Well Screen Interval





Impacted/Contaminated Soil Volume Estimates

Impacted/Contaminated Soil, Estimated In-Place Dimensions (above understood-development excavation grade)

Impacted/Contaminated Soil, Estimated In-Place Dimensions (beneath understood-development excavation grade)

Approximate Horizontal Drawing Scale: 1" = 50'
Approximate Vertical Drawing Scale: 1" = 10'

0 ft. 30 ft. 50 ft. 100 ft.

Note: This figure contains information in color. Black & white photocopies may not be suitable for review.

G-Logics

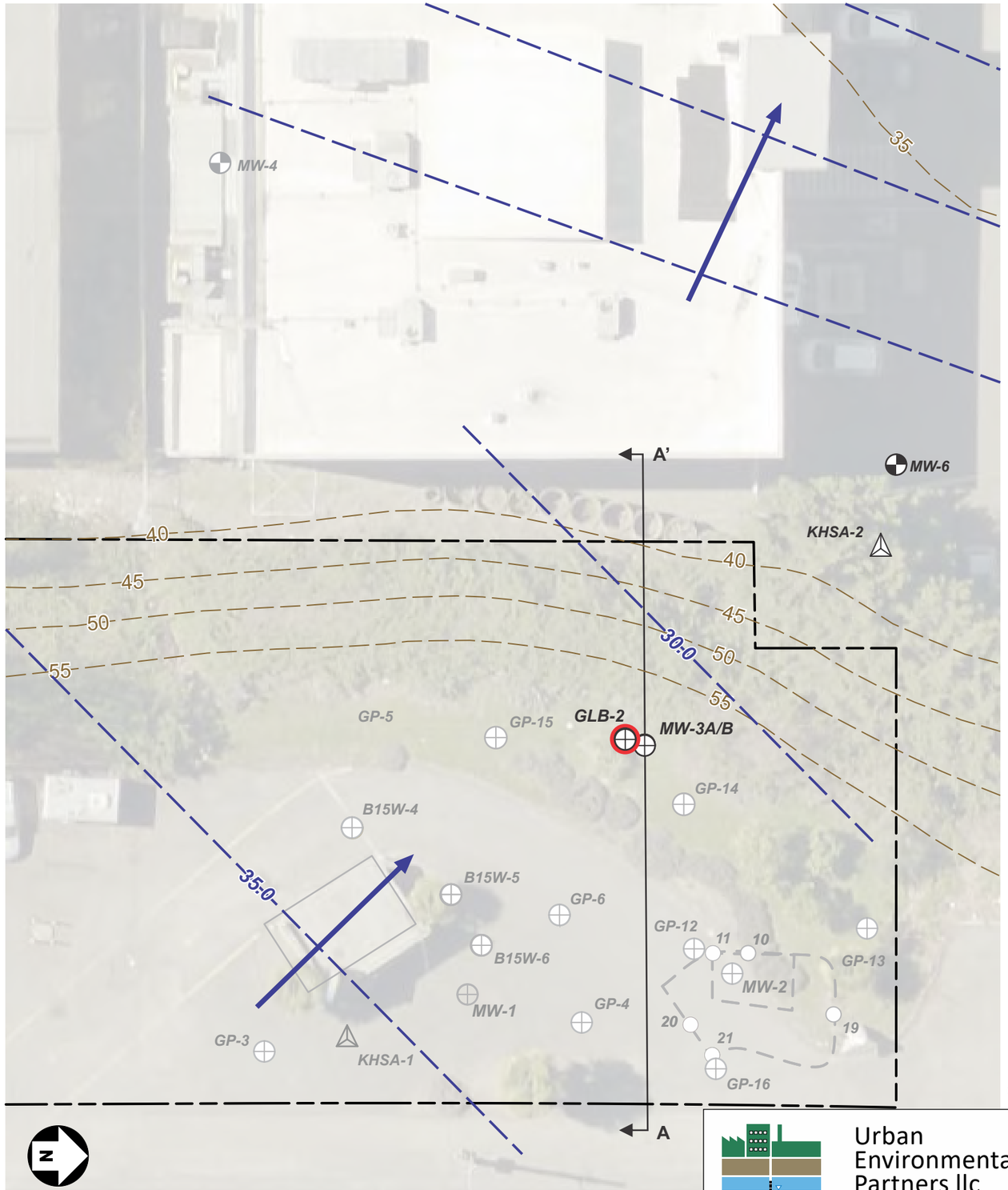
Soil Volume Estimates and PCS Excavation Area
Interbay Property
3435 15th Avenue West Seattle, WA 98119

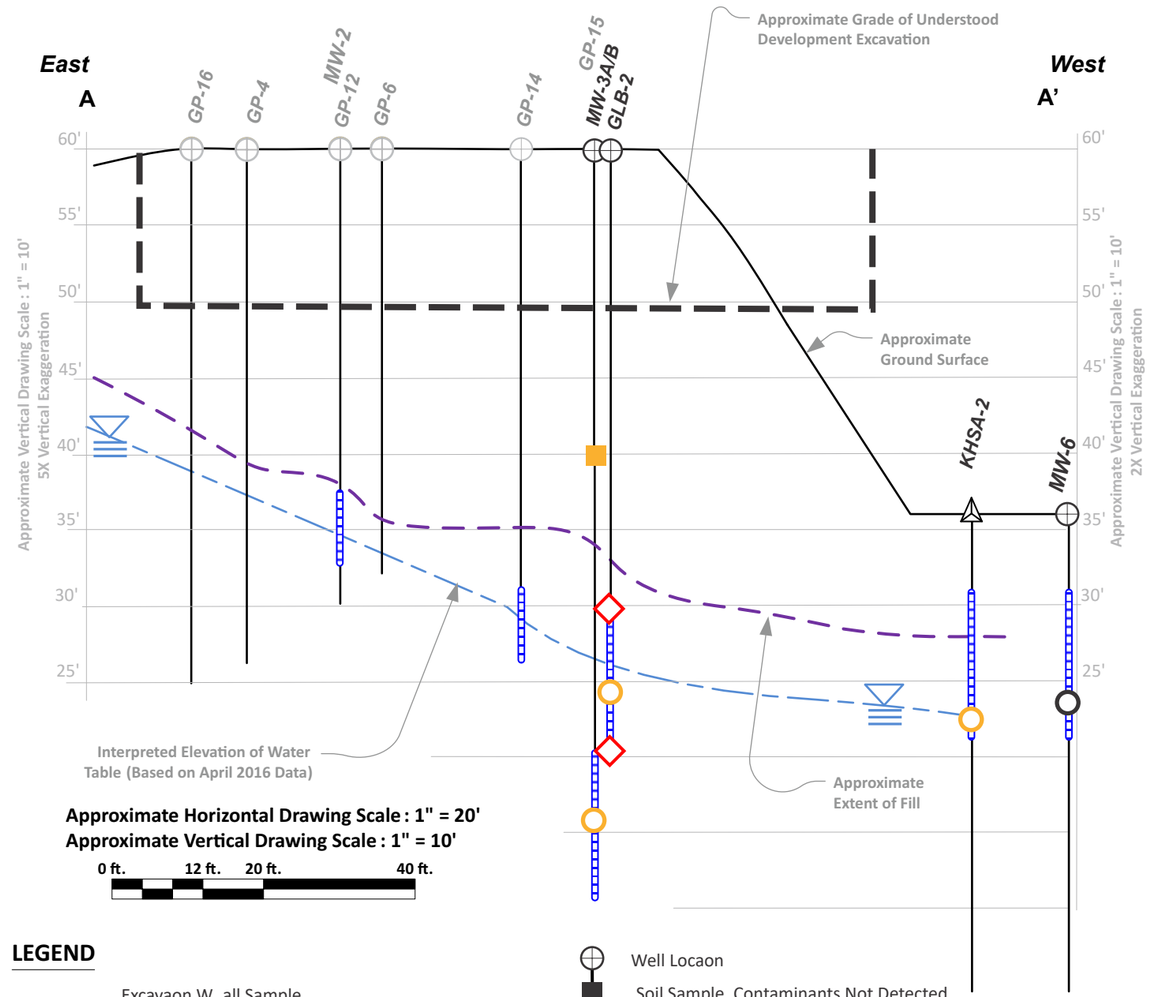
Figure 7

Project File: 01-1001-C-F7 Volumes.vsd

Mapping Reference: Kane, 2014, Report Figure 2; GeoEngineers, 2011, Report Figure 2; Adapt Engineering, 2007, Report Figure 2, Environmental Partners, 2003, Report Figure 2; G-Logics Field Measurements

UEP Figure 3





Approximate Horizontal Drawing Scale : 1" = 20'
Approximate Vertical Drawing Scale : 1" = 10'

0 ft. 12 ft. 20 ft. 40 ft.

LEGEND

- 19 — Excavaon W all Sample (SWI, 1994)
- MW-1 — Monitoring Well (SWI, 1994)
- B15W-2 — Geoprobe Boring (EPI, 2003)
- GP-10 — Geoprobe Boring (Adapt, 2007)
- MW-3A/B — Monitoring Well (GEI, 2011)
- GEI-1 — Hollow-stem Auger Boring (GEI, 2011)
- MW-6 — Monitoring Well (Adapt, 2011)
- KHSA-1 — Hollow-stem Auger (Boring (Kane, 2014)
- GLB-1 — Monitoring Well (G-Logics, 2016)

- Well Locaon
- Soil Sample, Contaminants Not Detected
- Soil Sample, Contaminant Detected, but Concentraon Less than MT CA Cleanup Levels
- Soil Sample, Contaminants Detected at Concentraons abov e MTCA Cleanup Levels
- Groundwater Sample, Contaminants not Detected
- Groundwater Sample, Contaminants Detected, Concentraon Less than MT CA Cleanup Levels
- Groundwater Sample, Contaminants Detected, Concentraons abov e MTCA Cleanup Levels
- 30.0 — Groundwater Elevaon Con tour
- Inferred Groundwater Flow Direcon

Screened Secon

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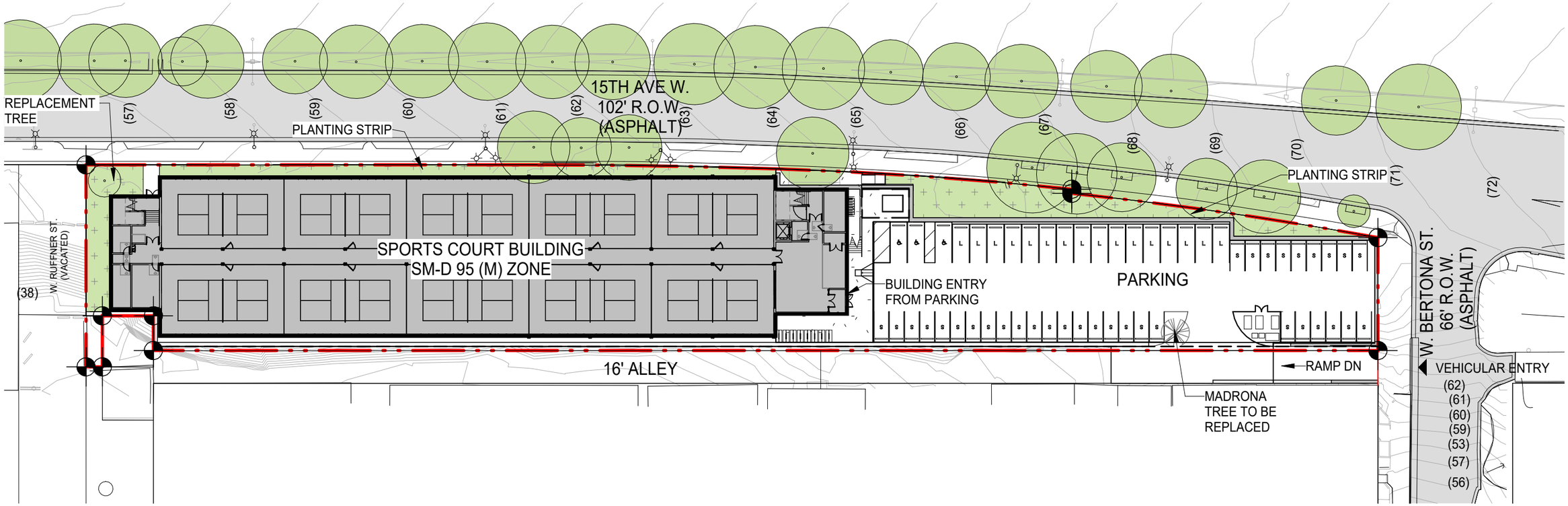
Barrientos Interbay Property
3435 15th Avenue West
Seattle, WA

Figure 4
North End Groundwater Monitoring Wells and Cross Section

UEP_BARRIENTOS INTERBAY_2024_FIGURE 4_BORINGS MONITORING WELLS AND CROSS SECTION A-A'

Axis/GFA Sheet No.A1.00P, Site Plan & Schematic Desdign - Pickleball Sports Complex



UEP Figure 5

PICKLE AT THE PALMS
3435 15TH AVENUE W.
SEATTLE, WA 98119

SITE PLAN
SCHEMATIC DESIGN
DATE: 10.27.2023 PROJECT NO. 23.315 SHEET NO. A1.00P

N

AXIS GFA
ARCHITECTURE + DESIGN
801 BLANCHARD STREET, SUITE 200 - SEATTLE, WA 98121
T 206.367.1382 - www.axisgfa.com

TABLES

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Table 1
Groundwater Analytical Results
Pickleball at the Palms
Seattle, Washington

Sample ID	Type Well Sample	Location	Sampled By	Date Sampled	Analytical Results (micrograms per liter)						
					Gasoline	Diesel	Heavy Oil	Benzene	Toluene	Ethyl benzene	Xylenes
Monitoring Wells Located in North End of Property - PCS Area											
MW-1	Temp-Grab	Onsite Northend Upgradient	S&W	05/09/94	<300	--	--	<1	<1	<1	<1
MW-2	Temp-Grab	Onsite Northend	S&W	05/09/94	<300	--	--	<1	<1	<1	<1
KHSA-1	Temp-Grab	Onsite Northend Upgradient	Kane	01/16/14	<50	<50	<100	<1	<1	<1	<1
GP-5	Temp-Grab	Onsite Northend	Adapt	04/23/07	<200	**420**	**420**	<1	<1	<1	<3
GP-6	Temp-Grab	Onsite Northend	Adapt	04/23/07	<200	**380**	<500	<1	<1	<1	<3
GP-12	TEMP-Grab	Onsite Northend	Adapt	04/23/07	**1,700**	<500	<500	**37**	**3**	**22**	**4**
GP-14	TEMP-Grab	Onsite Northend	Adapt	04/23/07	**1,400**	**1,400**	**310**	**3**	**6**	**15**	**19**
GLB-2	Permanent	Onsite Northend	G-Logics	04/22/16	**2,370**	<50	**446**	<1	<1	<1	**1.16**
	Permanent		UEP	07/30/24	**1,400**	**2,200**	<250	<1	<1	<1	12
	Permanent		UEP	08/15/24	**600**	-	-	<1	<1	<1	7.3
MW-3A/B	Permanent	Onsite Northend	GeoEng	2/14/2011	**140**	**200**	<250	<1	**1.6**	<1	**3.4**
	Permanent		UEP	07/30/24	<100	**390 x**	<250	<1	<1	<1	<3
KHSA-2	Permanent	Offsite NorthWest Downgradient	Kane	01/17/14	<50	**101**	**226**	<1	<1	<1	<3
	Permanent			04/22/16	<50	<50	**273**	<1	<1	<1	<3
MW-6	Permanent	Offsite NorthWest Downgradient	Adapt	01/25/11	<100	<250	<250	<1	<1	<1	<3
	Permanent		UEP	07/30/24	**110**	**230 x**	<250	<1	<1	<1	<3
Other Site Wells - Not Located in the North End											
B15W-2	Temp-Grab	Onsite Central	EPI	09/18/03	<50	<140	--	<1	<1	<0.01	<3
GP-2	Temp-Grab	Onsite Central	Adapt	04/23/07	<200	<500	<500	<1	<1	<1	<3
GP-10	Temp-Grab	Onsite Southend	Adapt	04/23/07	<200	<500	<500	<1	<1	<1	<3
GP-11	Temp-Grab	Onsite Southend	Adapt	04/23/07	<200	<500	<500	<1	<1	<1	<3
KHSA-3	Temp-Grab	Offsite Southend Downgradient	Kane	01/17/14	<50	**77.8**	**380**	<1	<1	<1	<3
GLB-1	Temp-Grab	Onsite Central	G-Logics	04/22/16	<50	<50	**740**	<1	<1	<1	<1
GLB-3	Temp-Grab	Onsite Southend	G-Logics	04/22/16	<50	<206	<411	<1	<1	<1	<1
MTCA Cleanup Level for Groundwater[4] in µg/L:					**1000/800**	**500**	**500**	**5**	**1,000**	**700**	**1,000**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

[4]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007.

-- = not analyzed/not applicable

< = not detected (ND) at the concentration below the indicated lab reporting limit

MTCA = WA State Model Toxics Control Act

Performance Monitoring

Compliance Monitoring

Laboratory Note:

X = The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

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Table 2
Soil Gas Results
Pickleball at the Palms
3436 15th Ave N, Seattle, WA

Sample ID	Sampled By	Date Sampled	Depth (ft/bgs)	Analytical Results[1] - Micrograms per Cubic Meter (µg/M^3)					
				PCE	TCE	Benzene	Ethylbenzene	Tolulene	Total Xylenes
SG-1-3	UEP	6/2/2023	3	n/a	n/a	**38**	77.0	<320	166
UEP-1	UEP	11/3/2023	11.3	<95	<1.5	**49**	130	180	600
UEP-2	UEP	11/3/2023	12.9	<54	**3.9**	**34**	65.0	<60	317
UEP-3	UEP	11/3/2023	14	<56	<0.88	**48**	53.0	100.00	263
UEP-4	UEP	11/3/2023	15.4	<120	<1.9	<5.8	<7.8	<140	<7.8
Ecology MTCA Method B Commercial (Worker) Screening Levels (SL) for Soil Gas (µg/M^3):				**1,500**	**95**	**50**	**130,000**	**650,000**	**13,000**

Notes:

Red denotes concentration exceeding MTCA screening level.
< or ND = Not Detected at a concentration exceeding the specified laboratory reporting limit (RL).
(1) Samples analyzed by U.S. EPA Method TO-15
(2) Most Conservative MTCA Method B Sub-Slab Soil Gas Screening Level, CLARC Master Spreadsheet January 2023.

bgs = below grade surface
cVOCs: Chlorinated Volatile Organic Compounds
PCE = tetrachloroethylene
TCE = trichloroethylene
DCE = dichloroethylene
VC = Vinyl Chloride

G-Logics Soil and GW Sampling - Interbay

(RI Report)

TABLE 1

Soil Sample Analyses Summary (1,2)

Interbay Property

Exploration Location	Sample Number	Depth (feet)	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Diesel Range Organics	Heavy Oil Range Organics	Lead	Arsenic	Cadmium	Chromium	Chromium (Hexavalent)	Mercury	Lead (TCLP)**	Methyl Tert Butyl Ether (MTBE)	Methylene Chloride
(mg/kg)																		
Geotech Consultants, Inc.																		
August, 1990																		
B-1	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-2	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-3	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-4	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-5	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-6	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
B-7	N/A	N/A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Floor	Floor	N/A	---	---	---	---	<1	---	<25	---	---	---	---	---	---	---	---	---
East Wall	Ewall-1	N/A	---	---	---	---	<1	---	<25	---	---	---	---	---	---	---	---	---
	Ewall-2	N/A	---	---	---	---	<1	---	<25	---	---	---	---	---	---	---	---	---
West Wall	Wwall-1	N/A	---	---	---	---	<1	---	**44 (x)**	---	---	---	---	---	---	---	---	---
	Wwall-2	N/A	---	---	---	---	<1	---	**40 (x)**	---	---	---	---	---	---	---	---	---
North Wall	Nwall-1	N/A	---	---	---	---	<1	---	**40 (x)**	---	---	---	---	---	---	---	---	---
	Nwall-2	N/A	---	---	---	---	<1	---	**55 (x)**	---	---	---	---	---	---	---	---	---
Shannon and Wilson, Inc.																		
May, 1994																		
MW-1	1540B1S2	7.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1540B1S3	12.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1540B1S8	37.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	1540B2S3	12.5	<0.001	**0.13**	**0.47**	**1.53**	**82**	---	**970 (x)**	---	---	---	---	---	---	---	---	---
	1540B2S5	22.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	1540B2S7	32.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1
Soil Sample Analyses Summary (1,2)
Interbay Property

Exploration Location	Sample Number	Depth (feet)	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Diesel Range Organics	Heavy Oil Range Organics	Lead	Arsenic	Cadmium	Chromium	Chromium (Hexavalent)	Mercury	Lead (TCLP)**	Methyl Tert Butyl Ether (MTBE)	Methylene Chloride
(mg/kg)																		
August, 1994																		
10	1540-12-10	12	---	---	---	---	nd	nd	nd	---	---	---	---	---	---	---	---	---
11	1540-06-11	6	<0.02	<0.02	<0.02	<0.06	<1.0	---	---	---	---	---	---	---	---	---	---	---
19	1540-12-19	12	nd	nd	nd	nd	nd	---	---	---	---	---	---	---	---	---	---	---
20	1540-14-20	14	<0.02	**0.13**	**1.6**	**2.3**	**390**	---	---	---	---	---	---	---	---	---	---	---
21	1540-09-21	9	<0.02	<0.02	**0.06**	**0.13**	**40**	---	---	---	---	---	---	---	---	---	---	---
Environmental Partners, Inc.																		
October, 2003																		
B15W-1	B15W-1:5	5	<0.03	<0.05	<0.05	<0.2	<3	<25	---	---	---	---	---	---	---	---	---	---
	B15W-1:10	10	<0.03	<0.05	<0.05	<0.2	<3	<25	---	---	---	---	---	---	---	---	---	---
B15W-2	B15W-2:5	5	<0.03	<0.05	<0.05	<0.2	<3	**840**	---	---	---	---	---	---	---	---	---	---
	B15W-2:15	15	<0.03	<0.05	<0.05	<0.2	<3	<25	---	---	---	---	---	---	---	---	---	---
B15W-4	B15W-4:2	2	<0.03	<0.05	<0.05	<0.2	<3	**360**	---	---	---	---	---	---	---	---	---	---
	B15W-4:6	6	<0.03	<0.05	<0.05	<0.2	<3	**97**	**870**	---	---	---	---	---	---	---	---	---
	B15W-4:10	10	<0.03	<0.05	<0.05	<0.2	<3	<25	---	---	---	---	---	---	---	---	---	---
B15W-5	B15W-5:2	2	<0.03	<0.05	<0.05	<0.2	<3	**220**	---	---	---	---	---	---	---	---	---	---
	B15W-5:6	6	<0.03	<0.05	<0.05	<0.2	**10**	**92**	---	---	---	---	---	---	---	---	---	---
	B15W-5:10	10	<0.03	<0.05	<0.05	<0.2	<3	**630**	**3,300**	---	---	---	---	---	---	---	---	---
B15W-6	B15W-6:2	2	<0.03	<0.05	<0.05	<0.2	<3	**210**	---	---	---	---	---	---	---	---	---	---
	B15W-6:6	6	**<0.6**	<1.0	1.4	<4.0	**1,700**	**630**	**650**	---	---	---	---	---	---	---	---	---
	B15W-6:10	10	<0.03	<0.05	<0.05	<0.2	<250	**530**	**220**	---	---	---	---	---	---	---	---	---

TABLE 1
Soil Sample Analyses Summary (1,2)
Interbay Property

Exploration Location	Sample Number	Depth (feet)	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Diesel Range Organics	Heavy Oil Range Organics	Lead	Arsenic	Cadmium	Chromium	Chromium (Hexavalent)	Mercury	Lead (TCLP)**	Methyl Tert Butyl Ether (MTBE)	Methylene Chloride
(mg/kg)																		
Adapt Engineering, Inc.																		
August, 2007																		
GP-1	GP-1/24-25	24-25	---	---	---	---	<20	<50	<250	**109**	**9.64**	<1	**35.4**	---	---	---	---	---
GP-2	GP-2/22-23	22-23	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-3	GP-3/6-8	6-8	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-4	GP-4/16-18	16-18	<0.02	<0.02	<0.02	**0.07**	**31**	**73**	**320**	---	---	---	---	---	---	---	---	---
GP-5	GP-5/30-31	30-31	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-6	GP-6/6-8	6-8	<0.02	**0.05**	<0.02	**0.45**	**77**	<50	<250	---	---	---	---	---	---	---	---	---
	GP-6/22-24	22-24	<0.02	**0.05**	<0.02	**0.07**	**10**	**190**	**1,100**	---	---	---	---	---	---	---	---	---
GP-7	GP-7/19-20	19-20	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-8	GP-8/23-24	23-24	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-9	GP-9/26-27	26-27	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-10	GP-10/23-24	23-24	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-11	GP-11/19-20	19-20	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-12	GP-12/25-26	25-26	**0.48**	**6.6**	**14**	**16**	**2,400**	<50	<250	---	---	---	---	---	---	---	---	---
	GP-12/27-28	27-28	<0.02	<0.02	<0.02	<0.06	**3**	<50	<250	---	---	---	---	---	---	---	---	---
	GP-12/29-30	29-30	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-13	GP-13/23-24	23-24	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
	GP-13/26-27	26-27	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
	GP-13130-31	30-31	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-14	GP-14/27-28	27-28	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
	GP-14/29-30	29-30	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
	GP-14/31-32	31-32	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-15	GP-15/15-6	6-8	---	---	---	---	<20	<50	**380**	---	---	---	---	---	---	---	---	---
	GP-15/31-32	31-32	<0.2	**0.23**	**6.0**	**9.3**	**1,100**	**800**	<250	---	---	---	---	---	---	---	---	---
	GP-15/34-35	34-35	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
GP-16	GP-16/15-16	15-16	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---
	GP-16/23-24	23-24	**<1.0**	**2.4**	**9**	**6.8**	**980**	**74**	<250	---	---	---	---	---	---	---	---	---
	GP-16/34-35	34-35	---	---	---	---	<20	<50	<250	---	---	---	---	---	---	---	---	---

TABLE 1
Soil Sample Analyses Summary (1,2)
Interbay Property

Exploration Location	Sample Number	Depth (feet)	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Diesel Range Organics	Heavy Oil Range Organics	Lead	Arsenic	Cadmium	Chromium	Chromium (Hexavalent)	Mercury	Lead (TCLP)**	Methyl Tert Butyl Ether (MTBE)	Methylene Chloride
(mg/kg)																		
GeoEngineers																		
February, 2011																		
GEI-1	GEI-1-5.0	5.0	---	---	---	---	---	<50	<250	---	---	---	---	---	---	---	---	---
GEI-2	GEI-2-5.0	5.0	---	---	---	---	---	<50	<250	---	---	---	---	---	---	---	---	---
GEI-3	GEI-3-2.5	2.5	---	---	---	---	---	<50	<250	**4.21**	**2.30**	<1	**16.6**	---	<0.2	---	---	---
MW-3B	MW-3B-20	20.0	---	---	---	---	---	---	---	**51.9**	---	---	---	---	---	---	---	---
Kane Environmental, Inc.																		
January, 2014																		
KHSA-1	KHSA-1:25-26.5	25-26.5	<0.02	<0.02	<0.03	<0.02	<3.32	<22.3	<55.7	---	---	---	---	---	---	---	---	---
	KHSA-40-41.5	40-41.5	<0.02	<0.02	<0.03	<0.02	<3.32	<22.3	<55.7	---	---	---	---	---	---	---	---	---
KHSA-2	KHSA-2:5-6.5	5-6.5	<0.02	<0.02	<0.03	<0.02	<3.32	<22.3	<55.7	---	---	---	---	---	---	---	---	---
KHSA-3	KHSA-3:15-16.5	15-16.5	<0.02	<0.02	<0.03	<0.02	<3.32	<22.3	<55.7	---	---	---	---	---	---	---	---	---
G-Logics, Inc.																		
April, 2016																		
GLB-1	GLB-1-2.5	2.5	<0.0231	<0.0231	<0.0346	<0.0231	<5.77	---	---	**155**	**7.76**	**0.910**	**52.6**	---	<0.272	---	---	---
	GLB-1-12	12	**0.0253**	<0.0215	<0.0322	<0.0215	<5.37	---	---	**17.7**	**3.48**	<0.163	**32.4**	---	<0.264	---	---	---
	GLB-1-16	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	GLB-1-22	22	<0.0237	<0.0237	<0.0355	<0.0237	<5.61	---	---	**17.7**	**3.48**	<0.163	**32.4**	---	<0.264	---	<0.0592	**0.0385**
	GLB-1-25	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GLB-2	GLB-2-30	30	<0.0211	<0.0211	<0.0316	<0.0211	**559**	<23.3	<58.2	---	---	---	---	---	---	---	---	---
	GLB-3-40	40	<0.0219	<0.0219	<0.0328	<0.0219	**572**	<21.1	<52.8	---	---	---	---	---	---	---	---	---
GLB-3	GLB-3-2	2	<0.0300	<0.0300	<0.0450	<0.0300	<7.50	<21.4	**116**	**294**	**11.2**	**0.489**	**40.3**	---	**0.297**	**0.643**	---	---
	GLB-3-5	5	<0.0199	<0.0199	<0.0298	<0.0199	---	---	---	**42.4**	**5.88**	**0.179**	**41.1**	---	<0.269	---	<0.0497	**0.0308**
	GLB-3-10	10	<0.0227	<0.0227	<0.0340	<0.0227	<5.66	---	---	---	---	---	---	---	---	---	---	---
	GLB-3-14	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	GLB-3-17	17	<0.0224	<0.0224	<0.0336	<0.0224	<6.26	<21.8	<54.4	---	---	---	---	---	---	---	---	**0.0342**
	GLB-3-22	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	GLB-3-25	25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 1
Soil Sample Analyses Summary (1,2)
Interbay Property

Exploration Location	Sample Number	Depth (feet)	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Diesel Range Organics	Heavy Oil Range Organics	Lead	Arsenic	Cadmium	Chromium	Chromium (Hexavalent)	Mercury	Lead (TCLP)**	Methyl Tert Butyl Ether (MTBE)	Methylene Chloride
(mg/kg)																		
GLB-4	GLB-4-2	2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	GLB-4-5	5	---	---	---	---	---	<21.1	**61.5**	**30.6**	**6.74**	<0.171	**59.4**	---	<0.262	---	---	---
	GLB-4-10	10	---	---	---	---	---	<24.3	<60.6	**69.4**	**13.1**	**0.334**	**49.9**	---	<0.296	---	---	---
	GLB-4-15	15	<0.0232	<0.0232	<0.0347	**0.0237**	---	---	---	**3,000**	**18.1**	**1.92**	**65.1**	<0.725	<0.353	**0.562**	---	**0.0284**
GLB-5	GLB-5-4	4	---	---	---	---	---	<21.1	**110**	---	---	---	---	---	---	---	---	---
	GLB-5-8	8	---	---	---	---	---	---	---	**9.36**	**10.7**	<0.208	**96.9**	<0.659	<0.310	---	---	---
	GLB-5-12	12	---	---	---	---	---	---	---	**8.18**	**10.5**	**0.201**	**74.7**	---	<0.313	---	---	---
	GLB-5-15	15	<0.0241	<0.0241	<0.0361	<0.0241	---	---	---	**4.65**	**9.55**	<0.185	**62.4**	---	<0.265	---	<0.0602	<0.0241
GLB-6	GLB-6-2	2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	GLB-6-6	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	GLB-6-10	10	<0.0275	<0.0275	<0.0413	<0.0275	<6.88	<22.9	<57.2	---	---	---	---	---	---	---	---	---
	GLB-6-20	20	<0.0211	**0.0338**	<0.0317	<0.0211	<5.28	<21.3	<53.3	---	---	---	---	---	---	---	---	---
GLB-7	GLB-7-2	2	---	---	---	---	---	<21.0	<52.4	**48.3**	**4.57**	**0.218**	**35.7**	---	<0.253	---	---	---
	GLB-7-5	5	<0.0233	<0.0233	<0.0349	<0.0233	<5.81	---	---	**9.15**	**11.90**	<0.207	**80.3**	<0.650	<0.316	---	---	---
	GLB-7-12	12	<0.0368	<0.0368	<0.0552	<0.0368	<9.19	---	---	---	---	---	---	---	---	---	---	---
	GLB-7-15	15	<0.0232	<0.0232	<0.0347	<0.0232	<5.79	<24.5	<61.3	---	---	---	---	---	---	---	---	---
MTCA Cleanup Level*			**0.03**	**7**	**6**	**9**	**100(a)/30(b)**	**2,000**	**2,000**	**250**	**20**	**2**	**2,000**	**19**	**2**	**5****	**0.1**	**0.02**

1 Refer to site diagrams for sampling locations.
2 See attached lab reports for analytical methods.
* Available Method A and/or Method B Soil Cleanup Levels (mg/kg) for Unrestricted Land Use; MTCA, Amendments adopted in November 2013.
** Lead by Toxicity Characteristic Leaching Procedure (TCLP). Results presented in mg/L.
a Soil Cleanup Level for gasoline with no detectable benzene in the soil.
b Soil Cleanup Level for gasoline with detectable benzene in the soil.
<21.1 Concentration less than the laboratory method detection limit. Some laboratory reports were unavailable to confirm this finding.
--- Not analyzed.
23 Bold number(s) indicates contaminant detected.
23 Bold number(s) and yellow shading indicates concentration exceeds MTCA Cleanup Level.
x Sample analyzed by EPA method 418.1.
<1.0 Laboratory reporting limit is higher than current MTCA Cleanup Levels.

Note: This table contains information in color. Black & white photocopies may not be suitable for review.

TABLE 2
Groundwater Depth and Sample Analysis Summary (1, 2)
Interbay Property

Exploration Location	Sample Date	Sample Number	Water Depth (ft)	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline	Diesel	Mineral Oil	Heavy Oil	Total Lead	Dissolved Lead	Total Arsenic	Dissolved Arsenic	Total Cadmium	Dissolved Cadmium	Total Chromium	Dissolved Chromium	Total Mercury	Dissolved Mercury	Isopropylbenzene	n-Propylbenzene	sec-Butylbenzene	Isopropyltoluene	VOCs (by 8260)
(units in µg/L)																										
Shannon & Wilson, Inc.																										
MW-1	**5/9/1994**	154030	34	<1.00	<1.00	<1.00	<1.00	<300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	**5/9/1994**	154031	34	<1.00	<1.00	<1.00	<1.00	<300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Environmental Partners, Inc.																										
B15W-2	**9/18/2003**	B15W-2	30.5	<1	<1	<0.1	<3	<50	<140	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Adapt Engineering, Inc.																										
GP-2	**4/23/2007**	GP-2/W-1	21	<1	<1	<1	<3	<200	<500	---	<500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GP-5	**4/23/2007**	GP-5/W-1	27	<1	<1	<1	<3	<200	**420**	---	**420**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GP-6	**4/23/2007**	GP-6/W-1	25	<1	<1	<1	<3	<200	**380**	---	<280	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GP-10	**4/23/2007**	GP-10/W-1	24	<1	<1	<1	<3	<200	<500	---	<500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GP-11	**4/23/2007**	GP-11/W-1	23.5	<1	<1	<1	<3	<200	<500	---	<500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GP-12	**4/23/2007**	GP-12/W-1	25	**37**	**3**	**22**	**4**	**1,700**	<500	---	<500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GP-14	**4/23/2007**	GP-14/W-1	29	**3**	**6**	**15**	**19**	**1,400**	**1,400**	---	**310**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	nd
GeoEngineers, Inc.																										
MW-3B	**2/14/2011**	MW-3B	35	<1	**1.6**	<1	**3.4**	**140**	**200**	---	**<250**	**24.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	2/23/2011	MW-3B	35	---	---	---	---	---	---	---	---	---	<1	---	---	---	---	---	---	---	---	---	---	---	---	---
Kane Environmental, Inc.																										
KHSA-1	**1/16/2014**	KHSA-1:W	42	<1.00	<1.00	<1.00	<1.00	<50.0	<50.0	---	<100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
KHSA-2	**1/17/2014**	KHSA-2:W	13.5	<1.00	<1.00	<1.00	<1.00	<50.0	**101**	---	**226**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	4/22/2016	KHSA-2-W	13.5	<1.00	<1.00	<1.00	<1.00	<50.0	<50.0	---	**273**	**1.98**	---	**2.62**	---	**4.23**	---	**0.928**	---	<1.00	---	---	---	---	---	nd
KHSA-3	**1/17/2014**	KHSA-3:W	18.5	<1.00	<1.00	<1.00	<1.00	<50.0	**77.8**	---	**380**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
G-Logics, Inc.																										
GLB-1	**4/22/2016**	GLB-1-W	25	<1.00	<1.00	<1.00	<1.00	<50.0	<50.0	---	**740**	**147**	**1.48**	**5.28**	**2.93**	**0.406**	<0.200	**8.50**	**1.16**	<0.100	<0.100	<1.00	<1.00	<1.00	<1.00	nd
GLB-2	**4/22/2016**	GLB-2-W	34	<1.00	<1.00	<1.00	**1.16**	**2,370**	<50.0	---	**446**	**24.4**	**15.4**	**5.43**	**1.45**	**0.246**	<0.200	**13.9**	**1.70**	<0.100	<0.100	**34.9**	**38.4**	**10.2**	**1.85**	nd
GLB-3	**4/22/2016**	GLB-3-W	22.5	<1.00	<1.00	<1.00	<1.00	<50.0	<206	---	<411	**99.0**	**33.1**	**22.8**	**1.28**	**1.37**	<0.200	**52.0**	<0.500	<0.100	<0.100	<1.00	<1.00	<1.00	<1.00	nd
MTCA Cleanup Level (3)				**5**	**1,000**	**700**	**1,000**	**1,000(a)/800(b)**	**500**	**500**	**500**	**15**	**15**	**5**	**5**	**5**	**5**	**50**	**50**	**2**	**2**	**800***	**800***	**800***	**	**Varies**

Note: This table contains information in color. Black & white photocopies may not be suitable for review.

Notes:

1 Refer to site diagram(s) for sampling locations. See attached lab reports for analytical methods.
2 Groundwater depths based on information provided in previous reports.
3 Available Method A Cleanup Levels, MTCA, Amendments adopted in November 2013.
Exceeding Cleanup Levels does not necessarily trigger requirements for Cleanup Actions under MTCA.
(a) Groundwater Cleanup Level for gasoline with no detectable benzene in the groundwater.
(b) Groundwater Cleanup Level for gasoline with detectable benzene in the groundwater.
nd Not Detected, concentration less than the laboratory method detection limit. Laboratory detection limits may vary by analyte and analysis,
<50.0 Sample concentration below laboratory reporting limit
--- Not analyzed.
27 Bold number(s) indicates contaminant detected.
250 Bold number(s) and shading indicates concentration exceeds MTCA Cleanup Level.
* Most conservative Method B Cleanup Level.
** Not researched, no available data.
Most recent monitoring well sample.

Table 12.1 Guidelines for Reuse of Petroleum-Contaminated Soil

Parameter	Analytical Method	Soil Category (8)(9)(10)			
		1 No detectable Petroleum Components (mg/kg)	2 Commercial Fill Above Water Table (mg/kg)	3 Paving Base Material & Road Construction (mg/kg)	4 Landfill Daily Cover or Asphalt Manufacturing (mg/kg)
Total Petroleum Hydrocarbons (1)(2) See Table 7.1 for petroleum products that fall within these categories.					
Gasoline Range Organics	NWTPH-Gx	<5	5 - 30	>30 - 100	>100
Diesel Range Organics	NWTPH-Dx	<25	25 - 200	>200 - 500	>500
Heavy Fuels and Oils*	NWTPH-Dx	<100	100 - 200	>200 – 500	>500
Mineral Oil	NWTPH-Dx	<100	100 - 200	>200 – 500	>500
Volatile Petroleum Components					
Benzene	SW8260B	<0.005	0.005 - 0.03	0.03 or less	See Table 12.2
Ethylbenzene	SW8260B	<0.005	0.005 - 6	6 or less	>6
Toluene	SW8260B	<0.005	0.005 - 7	7 or less	>7
Xylenes (3)	SW8260B	<0.015	0.015 - 9	9 or less	>9
Fuel Additives & Blending Components					
(MTBE) Methyl Tert-Butyl Ether	SW8260B	<0.005	0.005 - 0.1	0.1 or less	>0.1
Lead	SW6010A	<17	17 - 50	>50 - 220	See Table 12.2
Other Petroleum Components					
Polychlorinated (4) Biphenyls (PCBs)	SW8082	<0.04	<0.04	<0.04	See Table 12.2
Naphthalenes (5)	SW8260B	<0.05	0.05 - 5	5 or less	>5
cPAHs (6)	SW8270C	<0.05	0.05 - 0.1	>0.1 - 2	>2
Other Petroleum Characteristics (Applies to soils contaminated with any petroleum product.)					
Odors	Smell	No detectable odor			
Staining	Visual	No unusual color or staining			
Sheen Test	See Footnote # 7	No visible sheen			

IMPORTANT: See Table 12.2 and the footnotes to this Table on the following pages!
Test soil for the parameters specified in Table 7.2.
****Does NOT include waste oil contaminated soils, which should be disposed of in a landfill.***
"<" means less than; ">" means greater than

Table 12.1 Guidelines for reuse of petroleum-contaminated soil.

Table 12.2 Description and Recommended Best Management Practices for Soil Categories in Table 12.1 (continued next page)		
Category	**Acceptable Uses**	**Limitations**
Category 1 Soils: Soils with no detectable/ quantifiable levels of petroleum hydrocarbons or constituents using the analytical methods listed in Table 7.3 and are not suspected of being contaminated with any other hazardous substances.	• Can be used anywhere the use is allowed under other regulations. • Any use allowed for Category 2, 3 & 4 soils.	• These soils should be odor-free.
Category 2 Soils: Soils with residual levels of petroleum hydrocarbons that could have adverse impacts on the environment in some circumstances.	• Any use allowed for Category 3 & 4 soils. • Backfill at cleanup sites above the water table. • Fill in commercial or industrial areas above the water table. • Road and bridge embankment construction in areas above the water table.	• These soils may have a slight petroleum odor, depending on the sensitivity of the individual. This should be considered when reusing these soils. • Should be placed above the highest anticipated high water table. If seasonal groundwater elevation information is not available, place at least 10 feet above the current water table. • Should not be placed within 100 feet of any private drinking water well or within the 10 year wellhead protection area of a public water supply well. • Should not be placed in or directly adjacent to wetlands or surface water where contact with water is possible. • Should not be placed under a surface water infiltration facility or septic drain field. • Any other limitations in state or local regulations.
Category 3 Soils: Soils with moderate levels of residual petroleum contamination that could have adverse impacts on the environment unless re-used in carefully controlled situations.	• Any use allowed for Category 4 soils. • Use as pavement base material under public and private paved streets and roads. • Use as pavement base material under commercial and industrial parking lots.	• Should be placed above the highest anticipated high water table. If seasonal ground water elevation information is not available, place at least 10 feet above the water table. • Should be a maximum of 2 feet thick to minimize potential for leaching or vapor impacts. • Should not be placed within 100 feet of any private drinking water well or within the 10 year wellhead protection area of a public water supply well. • Should not be placed in or directly adjacent to wetlands or surface water. • Should not be placed under a surface water infiltration facility or septic drain field. • When exposed, runoff from area in use should be contained or treated to prevent entrance to storm drains, surface water or wetlands. • Any other limitations in state or local regulations.

Table 12.2 Description and recommended best management practices for soil categories in Table 12.1 (continued next page).