

January 17, 2017

Mr. Ed Jones, Project Manager
Washington State Department of Ecology
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

BY E-MAIL ONLY

**RE: PROGRESS REPORT, OCTOBER THROUGH DECEMBER 2016
REMEDIAL INVESTIGATION MONITORING AND FEASIBILITY STUDY
CAPITAL INDUSTRIES, INC., SEATTLE, WASHINGTON
AGREED ORDER NO. DE 10402
FARALLON PN: 457-008**

Dear Mr. Jones:

Farallon Consulting, L.L.C. (Farallon) has prepared this progress report on behalf of Capital Industries, Inc. (Capital) to summarize the activities conducted during the fourth quarter of 2016, October through December, as part of the ongoing Remedial Investigation (RI) monitoring and Feasibility Study (FS) being conducted at the Capital Site at 5801 3rd Avenue South in Seattle, Washington. This progress report has been prepared in accordance with Agreed Order No. DE 10402 entered into by potential liable persons that include Capital; Art Brass Plating, Inc.; Blaser Die Casting Co.; and PSC Environmental Services, LLC (Burlington Environmental, LLC is a wholly owned subsidiary of PSC Environmental Services, LLC, which is a wholly owned subsidiary of Stericycle Environmental Solutions, Inc.); and also with the Washington State Department of Ecology (Ecology) dated April 23, 2014 (Agreed Order). Capital and the other potentially liable persons listed above are referred to collectively as the West of 4th Group. The West of 4th Group site under the Agreed Order consists of Site Unit 1 (SU1) and Site Unit 2 (SU2) as depicted on the site diagram provided as Attachment A. The Capital Site is located within SU2.

ACTIVITIES DURING REPORTING PERIOD

Activities completed during this progress reporting period included:

- Continuing operation of vapor intrusion mitigation subslab depressurization systems (SSDSs) at the Pacific Foods Systems North Building at 5815 4th Avenue South and at the Olympic Medical Facility at 5900 First Avenue South in Seattle, Washington. This work included periodic inspection of system operations.
- Processing data from the semiannual groundwater monitoring and sampling event conducted in September 2016.
- Conducting monitoring well maintenance and repairs at the CI-7 well cluster in South Fidalgo Street and immediately south of Capital Industries Plant 4 on December 29, 2016. The monuments for all three monitoring wells were replaced.



- Decommissioning monitoring well CI-12-30 at the CertainTeed Gypsum Facility at 5931 East Marginal Way South on December 29, 2016. The monitoring well was partially lifted from the ground and a 1.5- to 2-foot section of the polyvinyl chloride blank piping was broken off while clearing the area to allow maintenance of the monuments.
- Participating in meetings with the West of 4th Group and Ecology in November 2016 to resolve issues regarding comments provided on the revised Feasibility Study Reports for SU1 and SU2.

These activities are summarized in the sections that follow.

VAPOR INTRUSION MITIGATION

The SSDS applied vacuum has been maximized at the Pacific Food Systems North Building since the third quarter of 2016 to assess whether concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) in indoor air can be further reduced. The SSDS at the Olympic Medical Facility operated continuously during the fourth quarter of 2016.

Construction of a new building on the former Mobile Crane Company property immediately south of South Fidalgo Street and Capital Industries Plant 2 continued. Reportedly, the new property owner is installing a vapor intrusion barrier as part of construction due to the TCE plume in shallow groundwater beneath the property. Details of the vapor barrier materials and construction have not been provided to Capital Industries or Ecology for review prior to construction.

GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring and sampling was performed in September 2016 in accordance with the memorandum regarding Revised West of 4th Groundwater Monitoring Program Plan dated December 23, 2014, from Ms. Janet Knox and Mr. Glenn Mutti-Driscoll of Pacific Groundwater Group to Mr. Ed Jones of Ecology (GW Monitoring Plan). Groundwater analytical results have been validated and summarized to evaluate plume stability and potential for natural attenuation within each of the three groundwater zones. The groundwater data are included on summary figures attached to this report. The groundwater data and other historical analytical data are being prepared for electronic data submittal to Ecology's Electronic Information Management system in the first quarter of 2017.

Groundwater data on the summary figures herein (Attachment B, Figures 1 through 3 and 1A through 3A) are compared to the most current preliminary cleanup levels. The preliminary cleanup levels for the shallowest groundwater in the Water Table Zone are based on protection of air quality. The preliminary cleanup levels for the Shallow and Intermediate Zones are based on the most recent and conservative values for protection of human health and the environment as established in the letter regarding EPA's Partial Approval/Partial Disapproval of Washington's Human Health Water Quality Criteria and Implementation Tools dated November 15, 2016 from Mr. Daniel D. Opalski of the U.S. Environmental Protection Agency to Ms. Maia Bellon of Ecology. This letter includes the most recent standards for protection of water quality approved by the U.S. Environmental Protection Agency. The West of 4th Group continues to work with Ecology to establish appropriate cleanup levels for all media of concern presented in the Feasibility



Study Reports for SU1 and SU2. The cleanup standards and cleanup levels will be finalized during preparation of the Cleanup Action Plan.

The groundwater data continue to fluctuate slightly, with an overall stable to decreasing trend across SU2 (Attachment B, Figures 1 through 3). The groundwater flow direction continues to be to the southwest toward the Slip 2 area at the Cal Portland Property at 5975 East Marginal Way South. Evaluation of groundwater geochemistry and the potential for natural attenuation of the chlorinated solvents in groundwater continues to indicate that biodegradation of PCE and TCE is occurring in all three groundwater zones as is evident by the full suite of degradation compounds through vinyl chloride. Biodegradation rates are slowest in the Water Table Zone but appear to increase in the lower zones, which are more anaerobic. Elevated concentrations of ethene, a final degradation product of the biodegradation of PCE and TCE, are present at various monitoring wells at the northwestern portion of the plume(s), coinciding with areas of elevated TCE and vinyl chloride (Attachment B, Figures 2A and 3A).

FEASIBILITY STUDY REPORT

The West of 4th Group completed the Draft Feasibility Study Reports for SU1 and SU2. The report for SU2 was submitted to Ecology for review and comment on February 12, 2016, and Ecology comments subsequently were received and addressed. Revised versions of the SU1 and SU2 FS Reports comprising the West of 4th Group FS were submitted to Ecology for its records on August 11, 2016. On October 25, 2016, Ecology issued comments on the revised reports that included Ecology's selection of alternative cleanup actions other than those that were proposed by the West of 4th Group.

Throughout November 2016, the West of 4th Group and Ecology conducted conference calls and meetings to evaluate whether to proceed with dispute resolution under the criteria set forth in the Agreed Order. All parties have agreed to evaluate the feasibility of select cleanup technologies via bench and/or field-scale pilot testing to evaluate the potential to reduce the time frame for cleanup and protect the Lower Duwamish Waterway. The West of 4th Group and Ecology will be meeting throughout the first quarter of 2017 to refine the parameters for establishing an amendment to the Agreed Order that will define criteria for pilot testing, re-evaluation of the cleanup alternatives following completion of the pilot testing, and a revised document/work schedule for tasks to be completed through preparation of the draft Cleanup Action Plan.

Copies of historical deliverables and comments received from Ecology are available on the West of 4th website (<http://aspectconsulting.com/clients/W4/>).

INTERIM MEASURES

No interim measures were implemented during this reporting period.

PUBLIC COMMUNICATIONS

No public communication activities were completed by Capital during this period.



ANTICIPATED WORK IN THE NEXT QUARTER

Work anticipated to be performed during the first quarter of 2017, January through March, is summarized below.

VAPOR INTRUSION

Indoor and outdoor ambient air samples will be collected at the Pacific Food Systems North Building in the next quarter for laboratory analysis to continue monitoring the performance of the SSDS and effects of increasing the height of the exhaust stack. If analytical results confirm that the SSDS is meeting the objective of reducing concentrations of PCE and TCE to less than the action levels set forth in the Revised Vapor Intrusion Assessment Monitoring and Mitigation Memorandum submitted to Ecology on December 15, 2014, a report documenting the air sampling activities since installation of the SSDS will be prepared.

Periodic monitoring of the SSDS at the Olympic Medical Building will be performed. Sampling of the influent from the system will be conducted in the first quarter of 2017 to evaluate the concentrations of chlorinated compounds being captured by the system and whether continued operation is necessary.

MONITORING AND SAMPLING ACTIVITIES

The GW Monitoring Plan will be revised in the first quarter of 2017. A groundwater monitoring and sampling event likely will be scheduled for March 2017. The data will be used to continue to evaluate plume stability and support the selection of potential cleanup alternatives presented in the Feasibility Study Report. The plan also will consider monitoring wells that will be incorporated into the forthcoming pilot test work, which will likely be sampled at a different frequency and for different parameters to provide performance criteria for the technologies being evaluated.

FEASIBILITY STUDY WORK

The revised versions of the SU1 and SU2 Feasibility Study Reports comprising the West of 4th Group Feasibility Study will be considered final versions of these reports. Following completion of the pilot study work, an addendum to the Feasibility Study Reports will be prepared and selection of a final remedial alternative will be proposed for approval by Ecology. A Draft Cleanup Action Plan will be prepared for SU1 and SU2 upon concurrence of the West of 4th Group and Ecology regarding the selected remedial alternative.

INTERIM MEASURES

No interim measures are anticipated during the next reporting period.

PUBLIC COMMUNICATIONS

The project website (<http://www.farallonconsulting.com/client-portal/public/capital-industries-document-and-data-maintenance>) will be updated with an electronic copy of this progress report.

The next progress report will summarize activities completed from January through March 2017 and will be submitted on or before April 7, 2017.



CLOSING

Farallon trusts that this quarterly progress report provides sufficient information for Ecology's needs. If you have questions regarding this project, please contact the undersigned at (425) 295-0800.

Sincerely,

Farallon Consulting, L.L.C.

Jeffrey Kaspar, L.G., L.H.G.
Principal Geologist

Attachments: Attachment A, Site Diagram
Attachment B, Groundwater Analytical Results

cc: Ron Taylor, Capital Industries, Inc. (by e-mail)
Donald Verfurth, Gordon and Rees, L.L.P. (by e-mail)

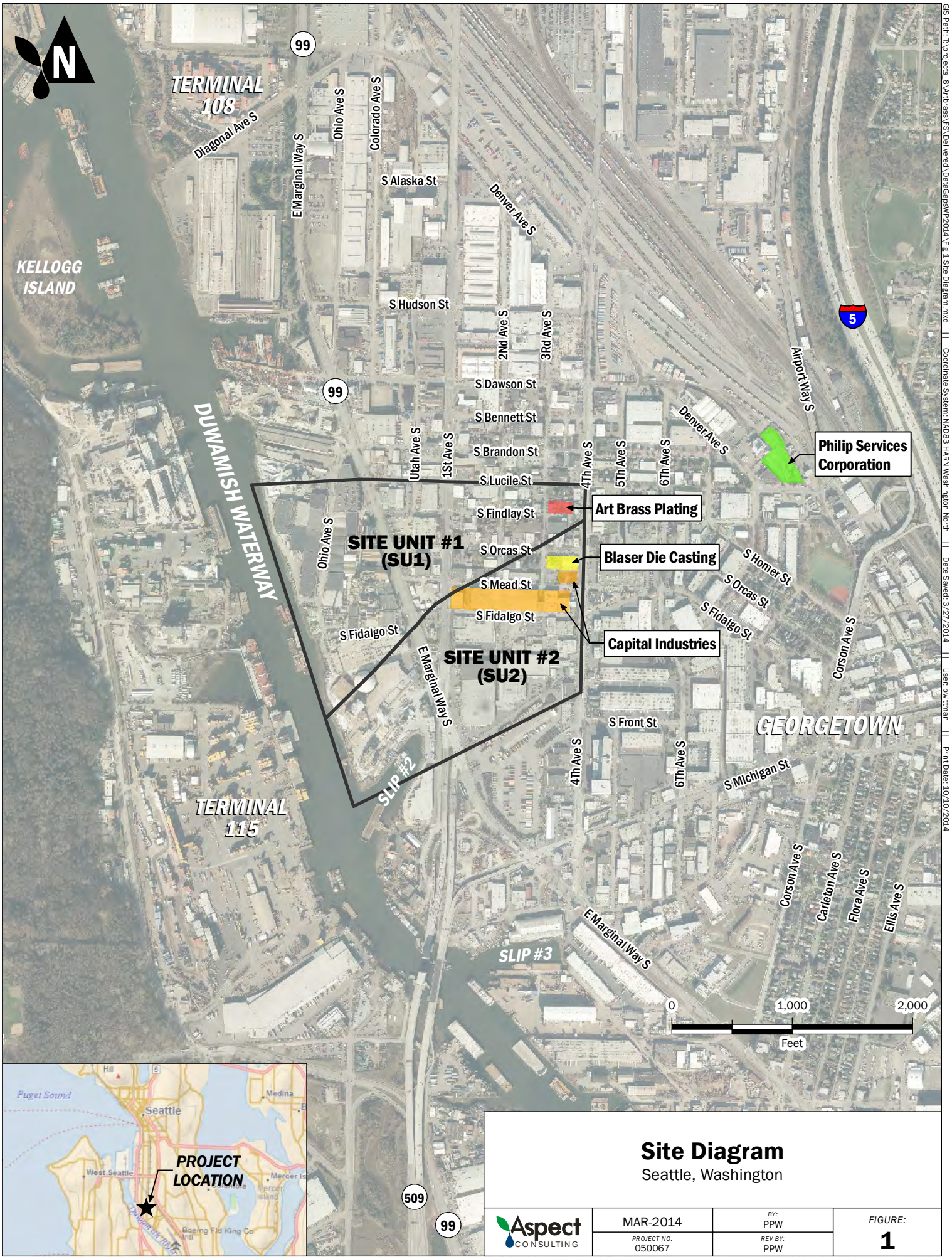
E-mail with link to electronic copy on project website:
Janet Knox, Pacific Groundwater Group
Dana Cannon, Aspect Consulting
Bill Carroll, Arrow Environmental
Bill Beck, PSC Environmental Services, LLC

JK/tlc

**ATTACHMENT A
SITE DIAGRAM**

PROGRESS REPORT, OCTOBER THROUGH DECEMBER 2016
Capital Industries, Inc.
Seattle, Washington

Farallon PN: 457-008

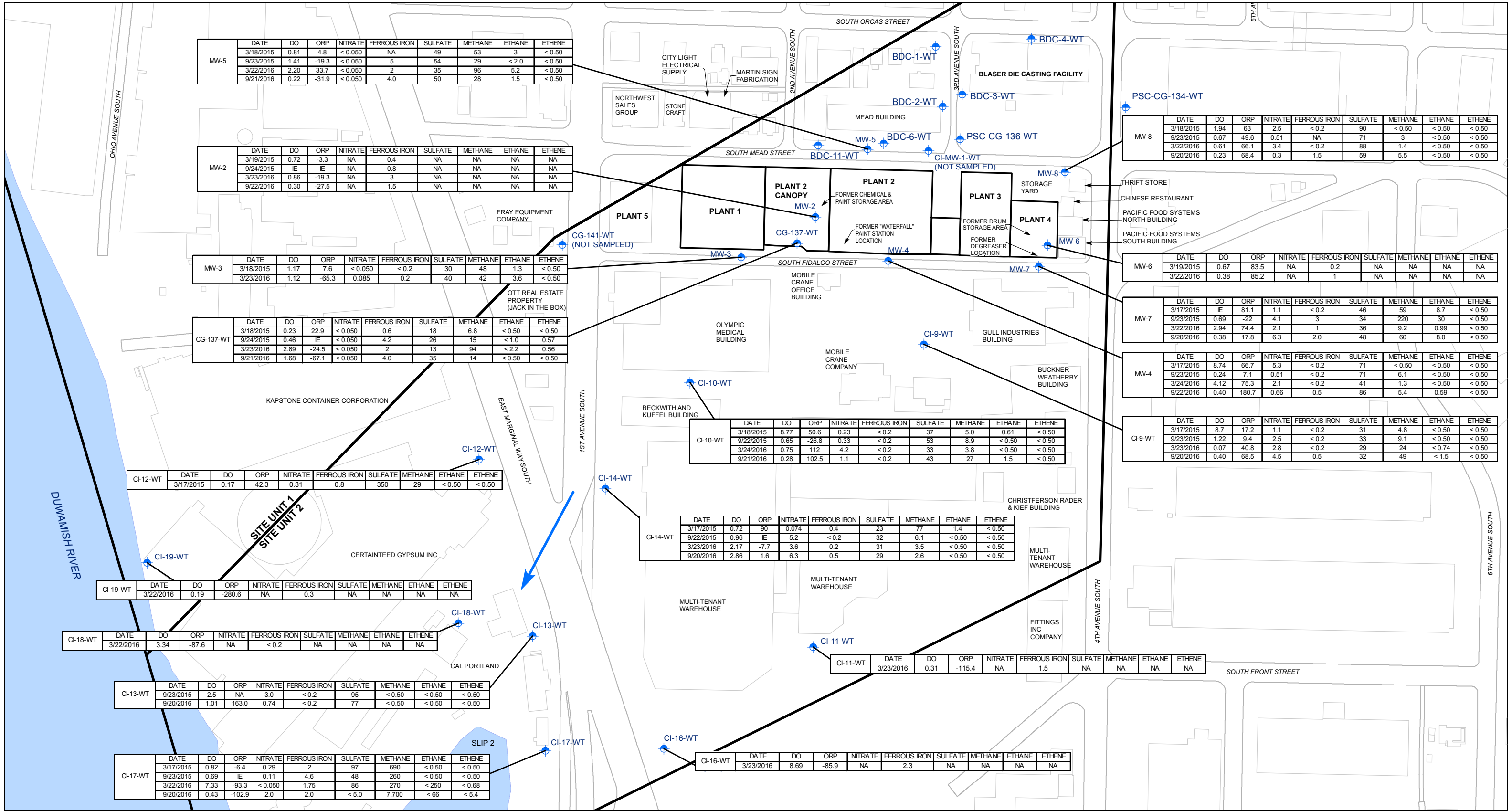


GIS Path: I:\Projects_8\Airbrass\FS\Delivered\Diagram\SWP2014\Fig 1 Site Diagram.mxd | Coordinate System: NAD83 HARN Washington North | Date Saved: 3/27/2014 | User: pmwittman | Print Date: 10/10/2014

ATTACHMENT B
GROUNDWATER ANALYTICAL RESULTS

PROGRESS REPORT, OCTOBER THROUGH DECEMBER 2016
Capital Industries, Inc.
Seattle, Washington

Farallon PN: 457-008



LEGEND

FERROUS IRON, NITRATE AND SULFATE IN MILLIGRAMS PER LITER UNITS
METHANE, ETHANE, AND ETHENE IN MICROGRAMS PER LITER UNITS

DO = DISSOLVED OXYGEN (MILLIGRAMS PER LITER)
ORP = OXIDATION REDUCTION POTENTIAL (MILLIVOLTS)
IE = INSTRUMENT ERROR
NA = NOT ANALYZED
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE REPORTING LIMIT LISTED



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SCALE IN FEET



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Washington
Issaquah | Bellingham | Seattle

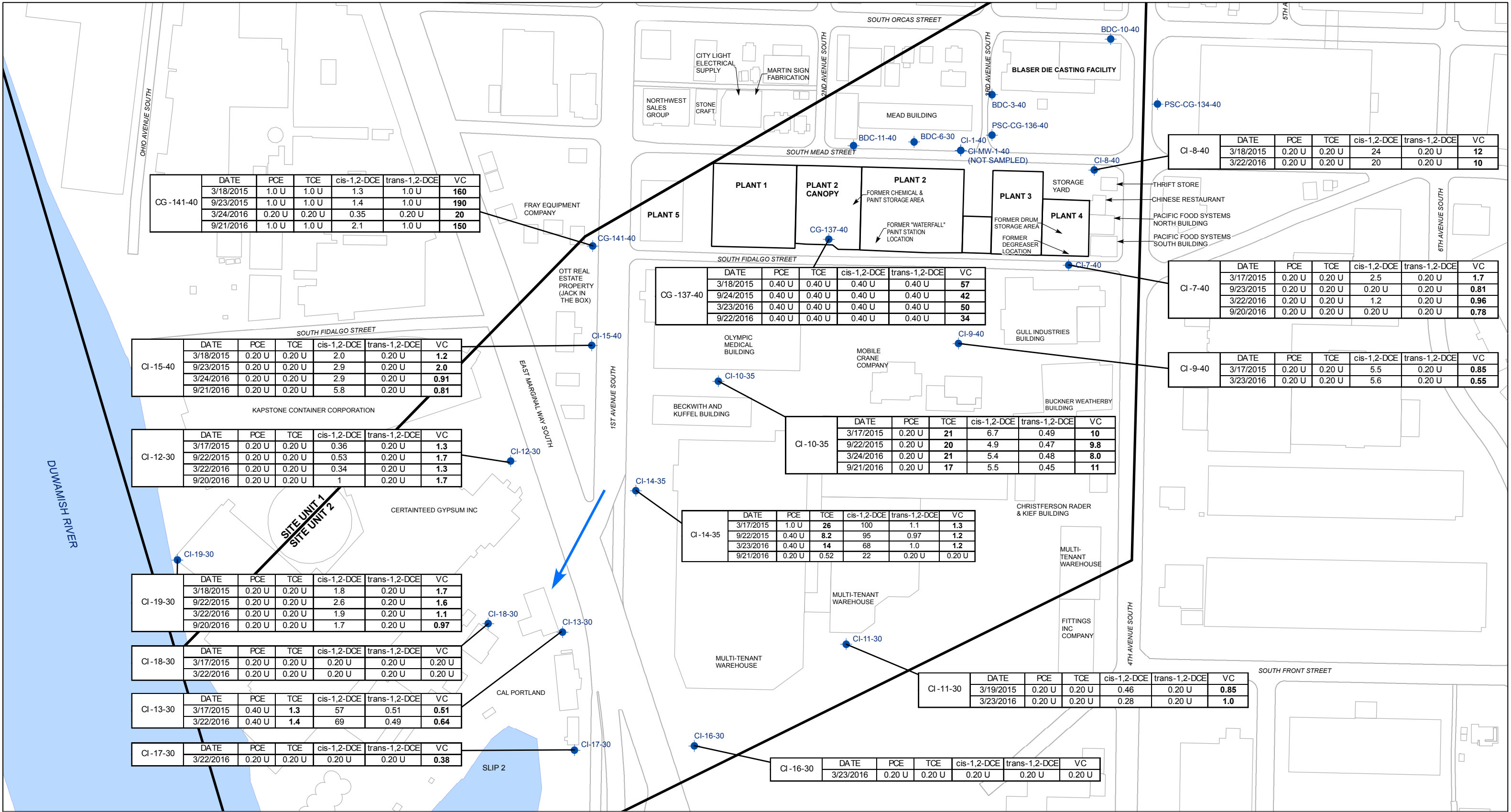
Oregon
Portland | Bend | Baker City

California
Oakland | Sacramento | Irvine

FIGURE 1A
NATURAL ATTENUATION PARAMETERS RESULTS FOR
WATER TABLE ZONE: 2015 - 2016
REMEDIAL INVESTIGATION
CAPITAL INDUSTRIES, INC.
SEATTLE, WASHINGTON

FARALLON PN: 457-007

Drawn By: tperrin Checked By: JK Date: 1/17/2017 Disc Reference:
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SHALLOW WATER-BEARING ZONE WELL

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SITE UNIT 1

SITE UNIT 2

SITE UNIT BOUNDARY

LEGEND

ALL ANALYTICAL RESULTS IN MICROGRAMS PER LITER, SAMPLE DATES LISTED

DCE = DICHLOROETHENE

PCE = TETRACHLOROETHENE

TCE = TRICHLOROETHENE

VC = VINYL CHLORIDE

BOLD = INDICATES CONCENTRATIONS EXCEED WEST OF FOURTH GROUNDWATER PRELIMINARY CLEANUP LEVELS FOR PROTECTION OF SURFACE WATER

U = INDICATES CONCENTRATIONS NOT DETECTED ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

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FIGURE 2

GROUNDWATER ANALYTICAL RESULTS FOR SHALLOW ZONE: 2015 - 2016

REMEDIAL INVESTIGATION

CAPITAL INDUSTRIES, INC.

SEATTLE, WASHINGTON

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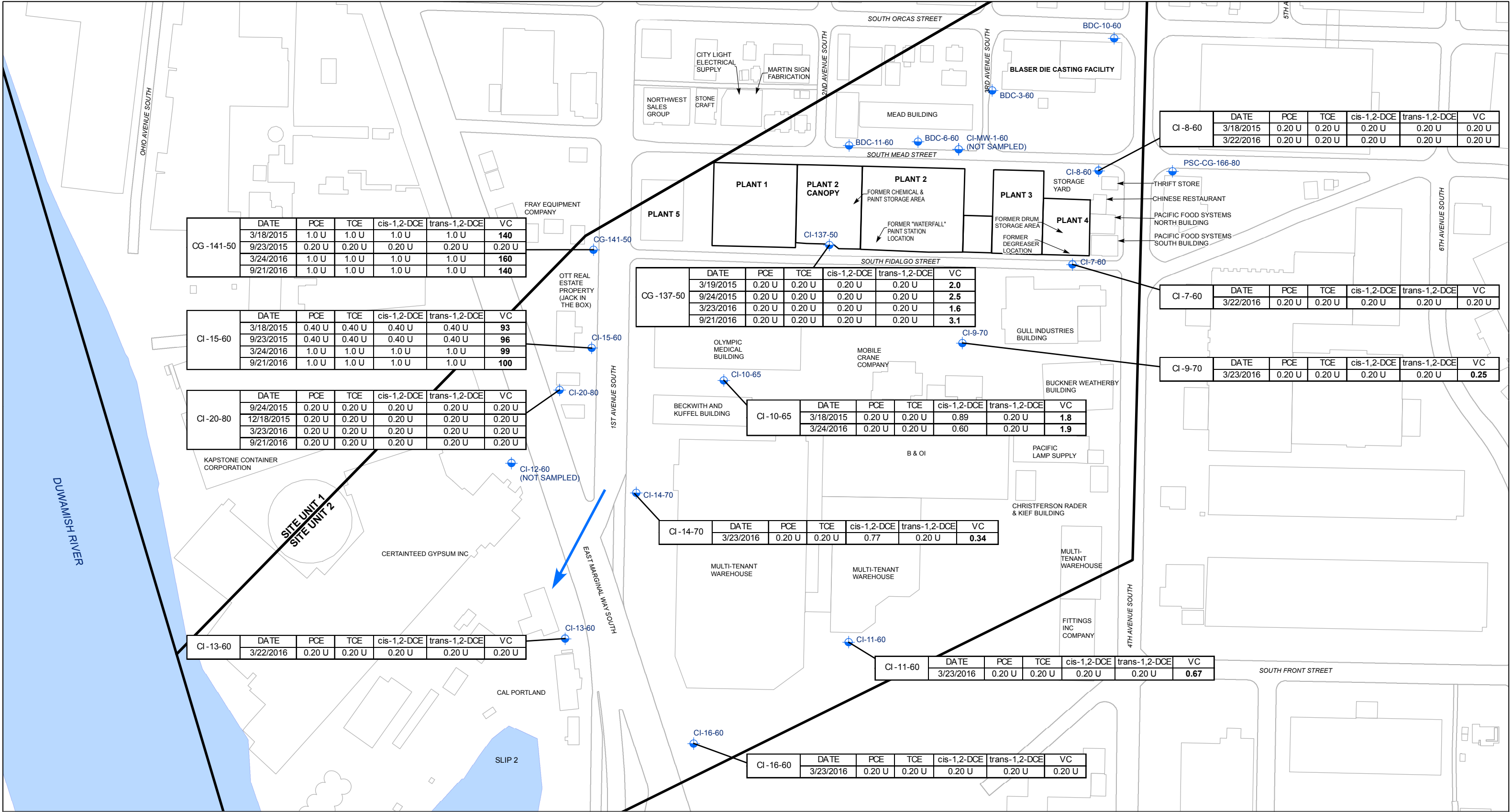
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INTERMEDIATE WATER-BEARING ZONE WELL


APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SITE UNIT 1

SITE UNIT 2

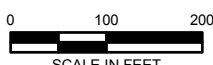
SITE UNIT BOUNDARY

LEGEND

ALL ANALYTICAL RESULTS IN MICROGRAMS PER LITER, SAMPLE DATES LISTED

DCE = DICHLOROETHENE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
VC = VINYL CHLORIDE
BOLD = INDICATES CONCENTRATIONS EXCEED WEST OF FOURTH GROUNDWATER PRELIMINARY CLEANUP LEVELS FOR PROTECTION OF SURFACE WATER
U = INDICATES CONCENTRATIONS NOT DETECTED ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT


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FIGURE 3

GROUNDWATER ANALYTICAL RESULTS FOR INTERMEDIATE ZONE: 2015 - 2016

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CAPITAL INDUSTRIES, INC.

SEATTLE, WASHINGTON

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Date: 1/17/2017

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