APPENDIX C
TERRESTRIAL ECOLOGICAL EVALUATION

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Block 38 West	
Facility/Site Address: 520 Westlake Ave N, Seattle, WA 98109	
Facility/Site No: 62773	VCP Project No.: N/A

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Logan Schumacher			Title: Associate Geologist
Organization: Farallon Consulting			
Mailing address: 1809 7th Ave Ste 1111			
City: Seattle		State: WA	Zip code: 98101
Phone: (425) 295-0800	Fax: NA	E-mail: lschumacher@farallonconsulting.com	

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☒ Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UNKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☒ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☒ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

- ☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- ☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

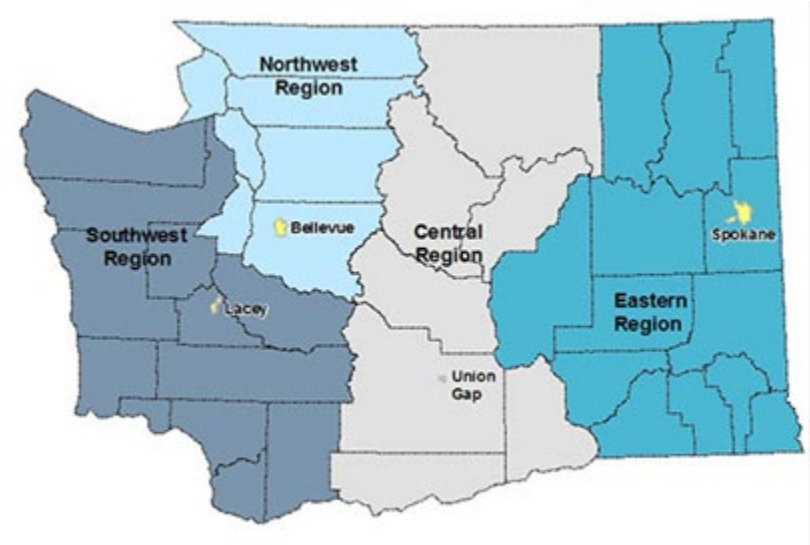
5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.

APPENDIX D
DEEP OUTWASH AQUIFER MONITORING

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

FARALLON CONSULTING

Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Baker City

California
Oakland | Folsom | Irvine

T E C H N I C A L M E M O R A N D U M

TO: Tena Seeds – Washington State Department of Ecology Toxics Cleanup Program

cc: Jim Broadlick – City Investors XI L.L.C.

FROM: Clifford Schmitt, L.G., L.H.G., Principal Hydrogeologist
Eric Buer, L.G., L.H.G., P.G., Senior Hydrogeologist

DATE: January 13, 2020

RE: **GROUNDWATER MONITORING PROGRAM**
SOUTH LAKE UNION BLOCK 38 WEST PROPERTY
SEATTLE, WASHINGTON
FARALLON PN: 397-061

Farallon Consulting, L.L.C. (Farallon) has prepared this Technical Memorandum to provide the rationale for selection of monitoring locations and sampling frequency for the Deep Outwash Aquifer Groundwater Performance Monitoring Program (Groundwater Monitoring Program) that will be conducted prior to, in conjunction with, and after completion of construction dewatering to facilitate mass excavation and building construction at the Block 38 West Property at 500 Westlake Avenue North in Seattle, Washington (Block 38 West) (Figure 1). The Groundwater Monitoring Program is a component of the interim action cleanup activities and is described in Section 8.4 of the *Interim Action Work Plan, Block 38 West Property, 500 through 536 Westlake Avenue North, Seattle, Washington* dated November 8, 2019, prepared by Farallon for City Investors IX L.L.C. (Interim Action Work Plan). The Groundwater Monitoring Program is being implemented in response to historical releases of the dry cleaning solvent tetrachloroethene (PCE) at the property at 700 Dexter Avenue North (BMR-Dexter Property), which resulted in a regional plume of chlorinated volatile organic compounds (CVOCs)[1] that has migrated through multiple water-bearing zones in the South Lake Union area (BMR-Dexter CVOC Plume).

Concentrations of CVOCs, specifically cDCE and vinyl chloride, that are attributable to the BMR-Dexter CVOC Plume are known to be present at, and/or immediately north-northwest of, Block

[1] The CVOCs include PCE; trichloroethene (TCE); isomers of dichloroethene, primarily cis-1,2-dichloroethene (cDCE); and vinyl chloride.

38 West. This Technical Memorandum provides a general overview of hydrogeologic units in the vicinity of Block 38 West, groundwater flow under static[2] (e.g. non-pumping) and pumping conditions, distribution of the BMR-Dexter CVOC Plume, and other information pertinent to development of the Groundwater Monitoring Program.

GROUNDWATER ZONES PRESENT IN SOUTH LAKE UNION AREA

Previous investigations in the South Lake Union area have described three water-bearing zones based on the lithologic unit in which they are encountered. These zones have varying degrees of hydraulic interconnection dependent on the location. The water-bearing zones at Block 38 West are summarized as follows:

- The uppermost water-bearing zone encountered on Block 38 West is the Shallow Water-Bearing Zone. The Shallow Water-Bearing Zone comprises fill and underlying recent deposits. At Block 38 West, the Shallow Water-Bearing Zone varies in thickness from approximately 5 to 15 feet and is first encountered at elevations between 22 and 25 feet North American Vertical Datum 1988 (NAVD88).
- The Intermediate Water-Bearing Zone[3] refers to groundwater encountered in consolidated glacial deposits. Typically, these deposits comprise dense silty sands and stiff sandy silts. The Intermediate Water-Bearing Zone is first encountered at approximate elevations of 5 to 10 feet NAVD88. Based on previous subsurface investigations, the Shallow Water-Bearing Zone is in direct communication with the Intermediate Water-Bearing Zone on Block 38 West.
- The Deep Outwash Aquifer refers to groundwater first encountered at approximate elevations of -30 to -40 feet NAVD88 in outwash sands with minor silt content below the consolidated glacial deposits.

At Block 38 West, the vertical gradient between the water-bearing zones is relatively small (e.g., approximately 1 foot downward) and groundwater levels have ranged from 16 to 18 feet NAVD88.

GROUNDWATER FLOW UNDER STATIC CONDITIONS

Under static conditions, there is typically a downward vertical gradient present from the Shallow Water-Bearing Zone to the Intermediate Water-Bearing Zone and from the Intermediate Water-Bearing Zone to the Deep Outwash Aquifer in the South Lake Union area. In the area west of Terry Avenue North where no aquitard is present between the Shallow and Intermediate Water-Bearing Zones or between the Intermediate Water-Bearing Zone and the Deep Outwash Aquifer, groundwater from the Shallow Water-Bearing Zone discharges to the Intermediate Water-Bearing Zone and from the Intermediate Water-Bearing Zone to the Deep Outwash Aquifer as groundwater flows from west to east. A detailed description of the evidence supporting this conceptual model

[2] Static conditions in this Technical Memorandum refers to periods when no groundwater extraction is occurring for the purposes of construction dewatering or groundwater treatment, or for other purposes.

[3] The Intermediate Water-Bearing Zone is sometimes further divided into an "A" and "B" units. For the purposes of this Technical Memorandum, this subdivision was not considered necessary.

of groundwater flow under static conditions is not presented in this Technical Memorandum but can be provided upon request[4].

DISTRIBUTION OF BMR-DEXTER CVOC PLUME

The BMR-Dexter CVOC Plume currently extends more than 1,000 feet from the BMR-Dexter Property to the east-southeast as shown on Figure 2[5]. While construction dewatering associated with neighboring properties has had short-term, temporary impacts on the BMR-Dexter CVOC Plume, its current footprint is the result of significant releases of CVOCs to groundwater at the BMR Dexter Property beginning in 1966, followed by decades of down-gradient migration under static conditions (i.e., west to east).

Construction dewatering events were limited in duration and are relatively recent compared to the decades since dry cleaning services started at the BMR-Dexter Property and releases of PCE occurred to the subsurface. During most of the period when the BMR-Dexter CVOC Plume was migrating down-gradient of BMR-Dexter Property source areas, groundwater flow occurred under static conditions from west to east, including in the Intermediate Water-Bearing Zone and Deep Outwash Aquifer. Temporary variations in groundwater flow in the Intermediate Water-Bearing Zone and/or Deep Outwash Aquifer may have occurred during some construction dewatering or other groundwater extraction events for limited periods of time.

OVERVIEW OF CONSTRUCTION DEWATERING AT BMR-DEXTER PROPERTY

It is Farallon's understanding based upon submissions to Ecology by BMR-Dexter LLC that construction dewatering at the BMR-Dexter Property commenced on August 9, 2019[6], and will continue for approximately 14 months during construction of two 14-story towers above three levels of subgrade parking[7]. The purpose of the construction dewatering system is to lower the groundwater table to an elevation below the base of the BMR-Dexter Property parking garage foundation (i.e., to below 1.6 feet NAVD88), which is up to 35 feet below the static groundwater level, prior to construction.

During the period of construction dewatering, groundwater beneath the BMR-Dexter Property and surrounding properties, including Block 79 to the east and Blocks 49 and 84 (City Mega Block) to

---

[4] Briefly, comparison of groundwater elevations between appropriately screened wells that progress along the static-condition groundwater flow line from the BMR-Dexter Property to the east show positive head differences from the Shallow to Intermediate Water-Bearing Zones and from the Intermediate Water-Bearing Zone to the Deep Outwash Aquifer.

[5] Approximate extent is based on groundwater data reported in the *Revised Agency Review Draft Remedial Investigation/Feasibility Study Work Plan, American Linen Supply Co – Dexter Avenue Site, 700 Dexter Avenue North, Seattle, Washington* dated April 15, 2019, prepared by PES Environmental, Inc. for the Washington State Department of Ecology (Ecology) (Draft RI/FS Report).

[6] Letter regarding Progress Report No. 22 – August 2019, American Linen Supply Co – Dexter Ave Site, Agreed Order No. DE 14302 dated September 13, 2019, from Mr. Daniel A. Balbiani of PES Environmental, Inc. to Ms. Tamara Cardona of Ecology.

[7] Pumping started on the northwestern leg of the BMR-Dexter Property dewatering system on August 6, 2019 and on the southern and eastern legs on August 19, 2019. An estimated 14-month construction period would result in system shut-down on or approximately on October 2020.

the south, will be within the radius of influence of the construction dewatering system. As a result, the direction of groundwater flow will be altered to flow radially toward the BMR-Dexter Property (e.g., groundwater at Block 79 will reverse from the static condition west-to-east flow direction and will flow east-to-west toward the BMR-Dexter Property).

OVERVIEW OF CONSTRUCTION DEWATERING AT BLOCK 38 WEST

Construction dewatering at Block 38 West will commence on approximately on December 30, 2019 and will continue for approximately 9 months during construction of a multistory mixed-use building with five stories above street level and four levels of parking below street level[8]. The objective of the construction dewatering system is to lower the groundwater table to an elevation below the base of the Block 38 West parking garage foundation (i.e., to below -10 feet NAVD88[9]), which is just over 25 feet below the static groundwater level prior to construction. During the period of construction dewatering, groundwater beneath Block 38 West and surrounding properties, including Block 37 to the north and Block 43 to the northwest, will be within the radius of influence of the construction dewatering system. As a result, the direction of groundwater flow will be altered to flow radially toward Block 38 West.

Although the current concentrations of CVOCs in the Deep Outwash Aquifer at Block 38 West (less than 1 microgram per liter of cDCE at monitoring wells FMW-137 and FMW-138) are less than the proposed screening levels for the American Linen Supply Co. – Dexter Avenue Site, concentrations of CVOCs exceeding the screening levels are present at distal end of the BMR-Dexter CVOC Plume on the western portion of Block 37 to the north (Figure 2). It is expected that much of the BMR-Dexter CVOC Plume mass presently located within approximately 400 to 500 feet[10] of Block 38 West will be extracted during the period of construction dewatering system operation. The extracted BMR-Dexter CVOC Plume mass will be treated prior to discharge in accordance with the Interim Action Work Plan and applicable permit requirements, including Administrative Order Docket No. 16592.

EFFECTS OF CONCURRENT CONSTRUCTION DEWATERING

As stated above, construction dewatering at the BMR-Dexter Property will lower the groundwater table up to 35 feet, while construction dewatering at Block 38 West will lower the groundwater table approximately 26 to 28 feet below static groundwater levels. Because both systems will have similar cones of depression (e.g., depressions in the water table surface associated with groundwater withdrawal), it is anticipated that contamination at, and proximate to, each property will not be drawn toward the other property. As a result of concurrent construction dewatering at the BMR-Dexter Property and Block 38 West, a temporary groundwater divide will develop centered in the vicinity of the intersection of Valley Street and 9th Avenue North, oriented

[8] The estimated 9-month dewatering schedule will result in system shut-down beginning in early September 2020.

[9] *Groundwater Control Plan, Block 38, Seattle, Washington* dated October 17, 2018, prepared for GLY Construction by Middour Consulting, LLC.

[10] The distance from Block 38 West that CVOC mass will be captured is dependent on the groundwater extraction rate during dewatering; the length of the dewatering at Block 38 West; the presence of a groundwater divide during concurrent construction dewatering at the both the BMR-Dexter Property and Block 38 West; and other hydrogeologic and fate and transport factors.

approximately north-northeast to south-southwest (Figure 2). Groundwater north and west of the divide will flow toward the BMR-Dexter Property construction dewatering system. Groundwater south and east of the divide will flow toward the Block 38 West construction dewatering system.

This condition is shown schematically on Figure 2 both in plan view and in profile. On the plan view, the approximate presently known extent of the BMR-Dexter CVOC Plume is shown in red shading[11] and the blue arrows depict the radial inward groundwater flow direction during construction dewatering at the BMR-Dexter Property and Block 38 West. The profile A-A'-A" depicts the static and depressed groundwater levels and the groundwater divide that will temporarily be present between the properties during concurrent construction dewatering events.

The Block 38 West construction dewatering system is expected to capture groundwater at the distal end of the BMR-Dexter CVOC Plume located south and east of the groundwater divide (Figure 2). As the Block 38 West construction dewatering system operates, radial flow toward Block 38 West will develop. This radial flow will include a slightly more south-southeastern groundwater flow in the area of Block 43 on the southeastern side of the groundwater divide compared to static conditions.

RATIONALE FOR GROUNDWATER MONITORING PROGRAM

The purpose of the Groundwater Monitoring Program is to monitor groundwater with measurable concentrations of CVOCs that are associated with the BMR-Dexter CVOC Plume that will be affected by construction dewatering. Figure 3 shows the locations of the wells that will be sampled in conjunction with the Groundwater Monitoring Program proximate to the BMR-Dexter CVOC Plume, and summarizes analytical results for prior monitoring events at each well for which data are available.

Table 1 presents detailed information for each of the wells selected for inclusion in the Groundwater Monitoring Program and the rationale for selection as a monitoring point. The south-southeastern flow direction during construction dewatering in the area of the distal portion of the BMR-Dexter CVOC Plume is referred to as a "temporary flow path" in Table 1. With the exception of monitoring well FMW-141, located west of the temporary groundwater divide, and monitoring well MW113, located in the approximate vicinity of the temporary groundwater divide, the current concentrations of CVOCs at selected Groundwater Monitoring Program wells are low compared to CVOC concentrations within the radius of influence of the BMR-Dexter Property dewatering system.

The frequency of sampling at each well has been selected based on the location of the well along the temporary flow paths and proximity to the BMR-Dexter CVOC Plume. All wells will be sampled prior to start-up and after shut-down of the Block 38 West construction dewatering system to obtain baseline and completion groundwater quality data.

[11] Based on data reported in the Draft RI/FS Report.

Sampling frequencies for selected wells included in the Groundwater Monitoring Program are described below:

- Monthly Sampling Events (dewatering wells DW-16, DW-17, and DW-18; interim action well IA-1; and geotechnical well GEI-2): These wells are located adjacent to Block 38 West or immediately up-gradient of Block 38 West on Block 37. This frequency of monitoring will support near-term decision making for treatment options of the extracted groundwater.
- Monthly and/or Bimonthly Sampling Events (monitoring wells MW113, MW119, FMW-129, FMW-140, and FMW-141): These wells are located within the current footprint of the BMR-Dexter CVOC Plume in areas further from Block 38 West than the wells to be sampled monthly.
    - CVOC mass[12] migrating on temporary flow paths passing monitoring wells MW119, FMW-129, and FMW-140 during the first few months of Block 38 West construction dewatering system operation will reach Block 38 West. CVOC mass migrating on temporary flow paths passing these wells after approximately 4 to 5 months of operation will not reach the Block 38 West construction dewatering system before it is turned off; therefore, the frequency of monitoring will be decreased during the latter half of operation of the Block 38 West construction dewatering system.
    - CVOC mass at monitoring well MW113 may not be captured by the Block 38 West construction dewatering system because of its position relative to the temporary groundwater divide, where the gradient will be relatively flat and the groundwater flow velocity correspondingly low.
    - CVOC mass[13] at monitoring well FMW-141 will be within the radius of influence of the BMR-Dexter Property construction dewatering system and will not migrate toward Block 38 West during concurrent dewatering at both properties.
- Bimonthly Sampling Events (monitoring wells MW128 and FMW-131, and interim action well IA-4): These wells are located at the northeastern edge of the current BMR-Dexter CVOC Plume footprint. The temporary flow paths at these wells will be southerly during operation of the Block 38 West construction dewatering system. It is expected that CVOC concentrations to the north of these wells will be less than the proposed screening levels for the American Linen Supply Co. – Dexter Avenue Site and may be less than laboratory reporting limits. As Block 38 West construction dewatering progresses, CVOC concentrations are expected to decline at monitoring wells MW128 and FMW-131 and remain reported non-detect at interim action well IA-4. A bimonthly sampling frequency for these wells will be sufficient to confirm the expected trend of CVOC concentrations at this area of the BMR-Dexter CVOC Plume.

[12] CVOCs, including cDCE and vinyl chloride. TCE may potentially reach the Block 38 West construction dewatering system. PCE is not anticipated to reach the Block 38 West construction dewatering system.
[13] Including PCE and PCE breakdown products.

- No Sampling During Construction Dewatering (monitoring wells FMW-137 and FMW-138): Groundwater monitoring at other wells near monitoring well FMW-137 make it unnecessary to collect groundwater samples at this location during dewatering. The temporary flow path at monitoring well FMW-138 will be from south to north and is not associated with the area of the BMR-Dexter CVOC Plume that currently exceeds screening levels (Figure 2). Monitoring wells FMW-137 and FMW-138 will be sampled prior to start-up and after shut-down of the Block 38 West construction dewatering system to obtain baseline and completion groundwater quality data.

The data collected during the Groundwater Monitoring Program will be used to make any necessary modifications to the dewatering treatment system to maintain compliance with established Indicator Levels as required under Administrative Order Docket No. 16592. Groundwater monitoring data will also document the anticipated reduction in CVOC mass within the eastern portion of the BMR-Dexter CVOC Plume.

Shallow groundwater will not be monitored during the Groundwater Monitoring Program because no residual source of CVOCs to shallow groundwater has been identified in the area northwest of Block 38 West and east-southeast of the BMR-Dexter Property within the footprint of the BMR-Dexter CVOC Plume. Documentation supporting this finding is in preparation and will be provided to Ecology under separate cover.

Attachments: Figure 1, *South Lake Union Vicinity*
Figure 2, *Schematic of Groundwater Flow Concurrent Construction Dewatering*
Figure 3, *Historical Groundwater CVOC Results Groundwater Performance Monitoring Well Network*
Table 1, *Groundwater Monitoring Rationale*

EB/CS:mm

FIGURES

GROUNDWATER MONITORING PROGRAM
South Lake Union Block 38 West Property
Seattle, Washington

Farallon PN: 397-061

LEGEND

KING COUNTY PARCEL BOUNDARY

52 BLOCK DESIGNATION

N

0 150

SCALE IN FEET

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

FARALLON CONSULTING

Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Baker City

California
Oakland | Folsom | Irvine

Quality Service for Environmental Solutions | farallonconsulting.com

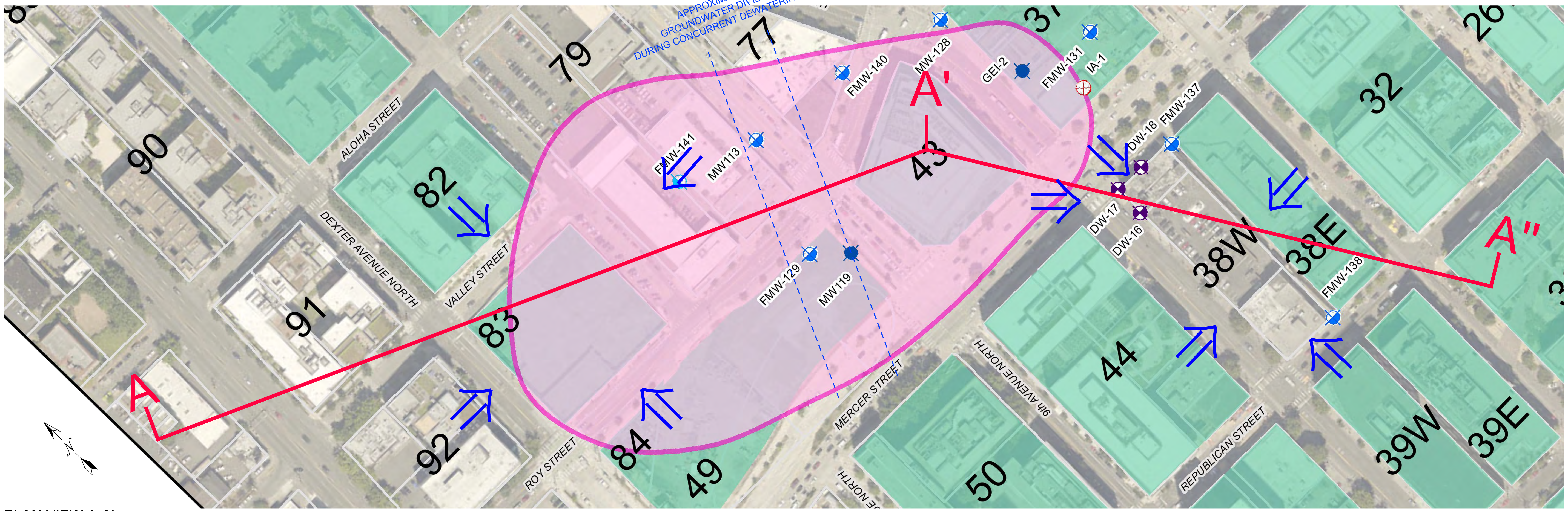
FIGURE 1

SOUTH LAKE UNION VICINITY
GROUNDWATER PERFORMANCE
MONITORING PROGRAM RATIONALE
BLOCK 38 WEST PROPERTY AREA
SEATTLE, WASHINGTON

FARALLON PN: 397-061

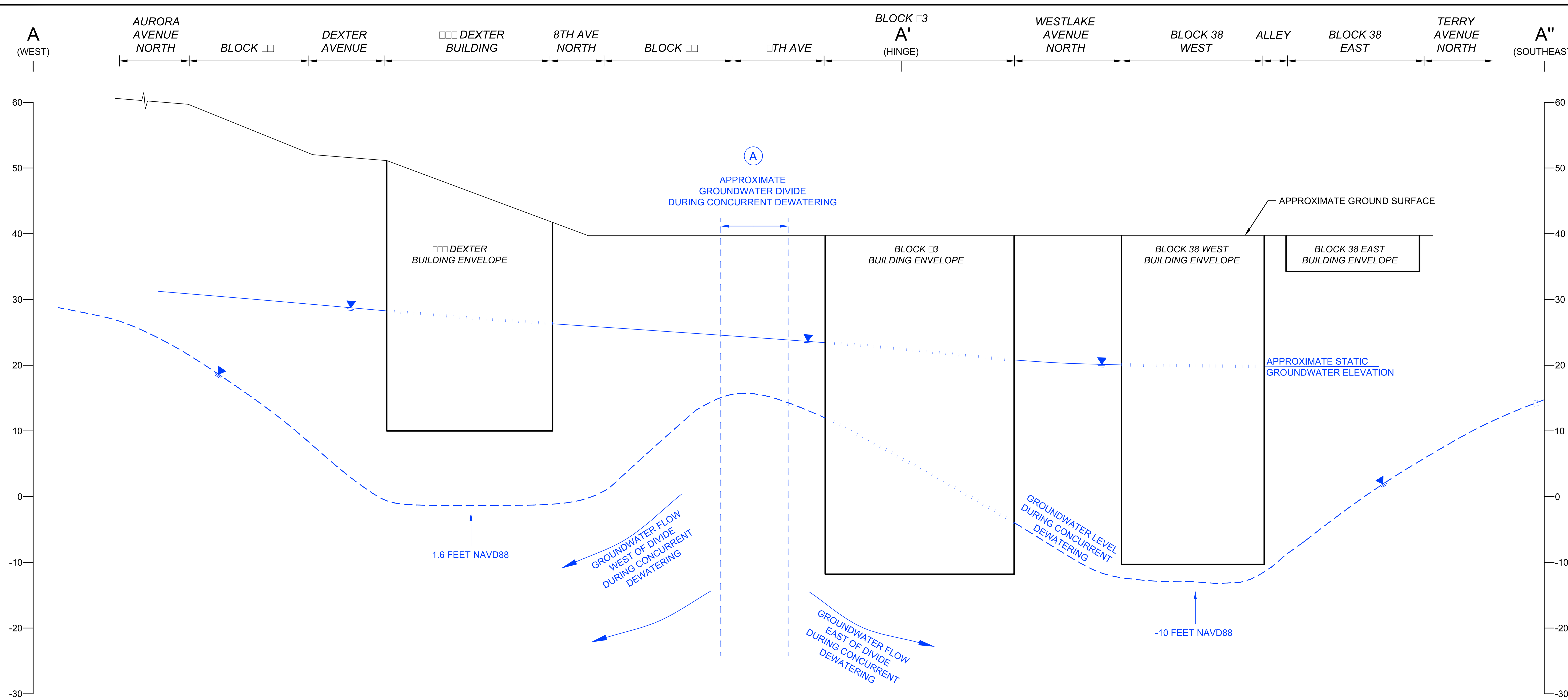
Drawn By: jjones | Checked By: EB | Date: 12/30/2019 | Disc Reference:

Path: \\edgefs02\GIS\Projects\397 VULCAN\061 Block 38 CVOCs\Mapfiles\008_GW_Monitoring\Figure-01_SLU_VicinityMap.mxd



PLAN VIEW A-A'

1" = 100'(H)



PROFILE VIEW A-A'

1" = 100'(H), 1" = 10'(V)

NOTE:
(A) LOCATION MAY VARY SLIGHTLY BASED ON PUMPING RATES AT BMR-DEXTER PROPERTY AND BLOCK 38 WEST PROPERTY.

LEGEND

- CURRENT KNOWN EXTENT OF BMR-DEXTER CVOC PLUME
- SHALLOW WATER-BEARING ZONE WELL
- INTERMEDIATE WATER-BEARING ZONE WELL
- INTERMEDIATE "A" WATER-BEARING ZONE WELL
- INTERMEDIATE "B" WATER-BEARING ZONE WELL
- DEEP OUTWASH AQUIFER WELL
- INTERCEPTION WELL
- DEWATERING WELL
- REDEVELOPED PROPERTY WITH CONFIRMED DEWATERING
- APPROXIMATE GROUNDWATER ELEVATION (STATIC CONDITIONS)
- APPROXIMATE GROUNDWATER ELEVATION DURING CONCURRENT DEWATERING AT BMR-DEXTER AND BLOCK 38 WEST PROPERTIES
- APPROXIMATE POTENTIOMETRIC SURFACE FOR GROUNDWATER WITHIN BUILDING ENVELOPE
- 52 BLOCK DESIGNATION
- A A' A" LINE OF PROFILE
- APPROXIMATE GROUNDWATER FLOW DIRECTION

FARALLON CONSULTING
Quality Service for Environmental Solutions | farallonconsulting.com
Washington: Issaquah | Bellingham | Seattle
Oregon: Portland | Baker City
California: Oakland | Folsom | Irvine

FIGURE 2

SCHEMATIC OF GROUNDWATER FLOW
CONCURRENT CONSTRUCTION DEWATERING
BLOCK 38 WEST AND BMR-DEXTER PROPERTIES
SEATTLE, WASHINGTON

FARALLON PN: 397-061

Drawn By: NM | Checked By: EB | Date: 12/30/2019 | Disk Reference: 397-061 X-Section

LAKE UNION

8th AVENUE NORTH

9th AVENUE NORTH

MW113
12/21/2012 |1.3|**440**|**5,500**|**150**
12/19/2013 |<1|**13**|**140**|**0.41**
6/25/2015 |<1|**19**|**670**|**17**
10/27/2015 |<1|4.5|**670**|**17**
2/3/2016 |<1|1.1|**1,500**|**13**
3/22/2017 |<0.199|**27.1**|**7,280**|**63.5**
6/16/2017 |0.522|**148**|**4,750**|**53.3**
4/11/2018 |**191**|**1,100**|**3,720**|**34.9**
1/30/2019 |<0.995|2.81|**6,330**|**34.8**
2/7/2019 |<0.199|1.77|**6,990**|**46.0**
11/11/2019 |<50|<50|**8,200**|**950**

FMW-141
7/26/2019 |<30|**2,800**|**6,200**|**820**
11/11/2019 |<20|<20|**3,500**|**2,900**

FMW-142
7/26/2019 |< 0.20|0.38|0.36|< 0.20

FMW-143
7/30/2019 |< 0.20|< 0.20|< 0.20|< 0.20

FMW-140
7/17/2019 |<2.0|<2.0|**280**|**320**
11/12/2019 |<4.0|<4.0|**310**|**510**

BLOCK 77

BLOCK 79 WEST

BLOCK 79 EAST

BROAD STREET

MW-128
1/13/2014 |<1|<1|**960**|**290**
4/22/2015 |<1|<1|**150**|**59**
10/20/2015 |<1|<1|7.0|**95**
2/2/2016 |<1|<1|**70**|**140**
3/29/2017 |<0.199|<0.153|7.16|**72.4**
6/21/2017 |<0.199|<0.153|**109**|**195**
4/9/2018 |<0.199|<0.153|3.07|**31.0**
12/30/2018 |<1.0|<1.0|5.0|**110**
11/11/2019 |<0.40|<0.40|1.4|**60**

IA-4
12/29/2018 |-14.84 ft|<0.20|<0.20|<0.20|<0.20
12/29/2018 |-28.84 ft|<0.20|<0.20|<0.20|<0.20
12/29/2018 |-42.84 ft|<0.20|<0.20|<0.20|<0.20
12/29/2018 |-56.84 ft|<0.20|<0.20|<0.20|<0.20
11/11/2019 |-0.84 ft|<0.20|<0.20|<0.20|<0.20
11/11/2019 |-30.84 ft|<0.20|<0.20|<0.20|<0.20
11/11/2019 |-60.84 ft|<0.20|<0.20|<0.20|<0.20

VALLEY STREET

FMW-129
5/23/2014 |0.40|0.57|**17**|**7.6**
10/20/2015 |**25**|**39**|**250**|<0.2
2/2/2016 |**13**|**61**|**240**|**0.330**
4/10/2017 |**194**|**492**|**1,420**|**0.885**
6/23/2017 |**81.1**|**182**|**474**|**0.413**
11/12/2019 |**79**|**130**|**340**|<2.0

WASHINGTON BUILDERS LLC PROPERTY

MW119
3/25/2013 |<1|<1|3.3|<0.2
12/19/2013 |<1|<1|2.5|**0.76**
4/21/2015 |**34**|**42**|**50**|**3.1**
6/17/2015 |4.9|**7.1**|**52**|**2.7**
10/20/2015 |**15**|**22**|**74**|**0.45**
2/2/2016 |**7.3**|**24**|**100**|**0.45**
3/29/2017 |**5.47**|**10.7**|**42.9**|**0.272**
6/28/2017 |**19.0**|**12.4**|5.99|<0.118
4/5/2018 |2.14|3.02|**18.3**|<0.118
1/21/2019 |1.24|<0.153|<0.0933|<0.118
11/11/2019 |3.7|**9.5**|10|<0.20

BLOCK 49

BLOCK 43

WESTLAKE AVENUE NORTH

GEI-2
3/24/2017 |<0.199|<0.153|2.25|**6.94**
6/23/2017 |<0.199|<0.153|**16.3**|**127**
12/29/2018 |<0.40|<0.40|6.7|**60**
11/11/2019 |<1.0|<1.0|**18**|**92**

TERRY AVENUE NORTH

FMW-131
9/2/2016 |< 0.20|< 0.20|**41**|**1.7**
3/24/2017 |< 0.199|< 0.153|**45.6**|**0.249**
6/23/2017 |< 0.199|< 0.153|3.61|**0.264**
12/18/2017 |< 0.20|< 0.20|0.61|< 0.20

IA-1
12/29/2018 |-15.41 ft|<0.20|<0.20|**43**|**36**
12/29/2018 |-29.41 ft|<0.20|<0.20|**46**|**40**
12/29/2018 |-43.41 ft|<0.20|<0.20|**48**|**41**
12/29/2018 |-57.41 ft|<0.20|<0.20|**48**|**37**
11/11/2019 |0.59 ft|<1.0|<1.0|**140**|**2.9**
11/11/2019 |-29.41 ft|<1.0|<1.0|**120**|**2.3**
11/12/2019 |-59.41 ft|<0.20|<0.20|6.9|**6.2**

BLOCK 37

BLOCK 31

MERCER STREET

DW-17
DW-18
DW-16

FMW-137
5/6/2019 |<0.20|<0.20|1.3|<0.20
7/8/2019 |<0.20|<0.20|1.3|<0.20
10/14/2019 |<0.20|<0.20|1.1|<0.20
11/11/2019 |<0.20|<0.20|1.3|<0.20

BLOCK 50

BLOCK 44

BLOCK 38 WEST

BLOCK 38 EAST

BLOCK 32

FMW-138
5/6/2019 |<0.20|<0.20|0.38|<0.20
7/8/2019 |<0.20|<0.20|0.34|<0.20
10/14/2019 |<0.20|<0.20|0.33|<0.20
11/11/2019 |<0.20|<0.20|0.37|<0.20

REPUBLICAN STREET

Pictometry, King County

LEGEND

- SHALLOW WATER-BEARING ZONE WELL
- INTERMEDIATE WATER-BEARING ZONE WELL
- INTERMEDIATE "A" WATER-BEARING ZONE WELL
- INTERMEDIATE "B" WATER-BEARING ZONE WELL
- DEEP OUTWASH AQUIFER WELL
- INTERCEPTION WELL
- DEWATERING WELL
- KING COUNTY PARCEL BOUNDARY

CONCENTRATIONS REPORTED AS: SAMPLE DATE | PCE | TCE | cis-1,2-DCE | VC
EXCEPT FOR WELLS IA-1 AND IA-4
IA-1 AND IA-4 REPORTED AS:
SAMPLE DATE | SAMPLE ELEVATION IN FEET NAVD88 | PCE | TCE | cis-1,2-DCE | VC
ANALYTICAL RESULTS IN MICROGRAMS PER LITER

BOLD = CONCENTRATIONS THAT EXCEED THE MTCA CLEANUP LEVEL
< = ANALYTE NOT DETECTED AT OR EXCEEDING THE LABORATORY REPORTING LIMIT LISTED
CVOC = CHLORINATED VOLATILE ORGANIC COMPOUND
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
cis-1,2-DCE = cis-1,2-DICHLOROETHENE
VC = VINYL CHLORIDE
NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
MTCA = WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION

NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
2. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

0 60 120
SCALE IN FEET

N

FARALLON CONSULTING
Quality Service for Environmental Solutions | farallonconsulting.com

Washington
Issaquah | Bellingham | Seattle

Oregon
Portland | Baker City

California
Oakland | Folsom | Irvine

FIGURE 3

HISTORICAL GROUNDWATER CVOC RESULTS
GROUNDWATER PERFORMANCE MONITORING WELL NETWORK
BLOCK 38 WEST PROPERTY AREA
SEATTLE, WASHINGTON

FARALLON PN: 397-061

Drawn By: jjones | Checked By: EB | Date: 12/30/2019 | Disc Reference:
Path: Q:\Projects\397 VULCAN\061 Block 38 CVOCs\Mapfiles\008_GW_Monitoring\Figure-03_GW_CVOCs.mxd

TABLE

GROUNDWATER MONITORING PROGRAM
South Lake Union Block 38 West Property
Seattle, Washington

Farallon PN: 397-061

Table 1
Rationale Deep Outwash Aquifer Groundwater Performance Monitoring
South Lake Union Area Block 38 West Property
Seattle, Washington
Farallon PN: 397-061

Well No.	Well Screen Completion Depth (feet bgs)	Well Screen Completion Elevation (feet)	Well Classification	Selection Rationale
City Mega Block (Southwest of 9th Avenue North and Broad Street)				
MW119	35.0 to 45.0	2.74 to -7.26	Intermediate	Intermediate monitoring well located on a temporary southeasterly flow path within the predicted radius of influence of the Block 38 West construction dewatering system.
FMW-129	84.2 to 89.2	-45.56 to -50.56	Deep	Deep Outwash Aquifer monitoring well located on a temporary southeasterly flow path within the predicted radius of influence of construction dewatering system at Block 38 West. Monitoring well FMW-129 is anticipated to be beyond the radius of influence of the BMR-Dexter Property construction dewatering system during concurrent dewatering with Block 38 West.
Block 37 Property				
GEI-2	50.5 to 60.5	-21.12 to -31.12	Intermediate/Deep	Intermediate/Deep Outwash Aquifer monitoring well within the predicted radius of influence of the Block 38 West construction dewatering system. Groundwater will temporarily flow more directly south relative to static conditions.
MW128	60 to 70	-30.80 to -40.80	Deep	Deep Outwash Aquifer monitoring well within the predicted radius of influence of the Block 38 West construction dewatering system. Groundwater will temporarily flow more directly south relative to static conditions.
FMW-131	62.5 to 72.5	-34.65 to -44.65	Deep	Deep Outwash Aquifer monitoring well within the predicted radius of influence of the Block 38 West construction dewatering system. Groundwater flow direction during construction dewatering at Block 38 West will be similar to static conditions.
IA-1 [2]	32 to 92	0.59 to -59.41	Deep	Interim action well within the predicted radius of influence of the Block 38 West construction dewatering system. The screened interval of this well allows for reconnaissance sampling of Intermediate Water-Bearing Zone and Deep Outwash Aquifer groundwater proximate to Block 38 West. Groundwater flow direction during construction dewatering at Block 38 West will be similar to static conditions.
IA-4 [2]	32 to 92	-0.84 to -60.84	Deep	Interim action well within the predicted radius of influence of the Block 38 West construction dewatering system. The screened interval of this well allows for reconnaissance sampling of Intermediate Water-Bearing Zone and Deep Outwash Aquifer groundwater slightly beyond the northeastern boundary of the current footprint of the BMR-Dexter CVOC Plume.
Block 38 Property				
FMW-137	72.0 to 85.0	-44.9 to -57.9	Deep	Deep Outwash Aquifer monitoring well northeast-adjacent to the Block 38 West construction dewatering system.
FMW-138	90.0 to 100.0	-45.96 to -55.96	Deep	Deep Outwash Aquifer monitoring well southeast-adjacent to the Block 38 West construction dewatering system.
DW-16 [3]	24 to 64	10 to -30	Dewatering	Dewatering well at the northern end of the western edge of Block 38 West. Samples collected from this and adjacent dewatering wells are expected to quantify some of the highest relative impacts from the BMR-Dexter CVOC Plume, if observed.
DW-17 [3]	22 to 62	10 to -30	Dewatering	Dewatering well at the northwestern corner of Block 38 West. Samples collected from this and adjacent dewatering wells are expected to quantify the highest relative impacts from the BMR-Dexter CVOC Plume, if observed.
DW-18 [3]	21 to 61	10 to -30	Dewatering	Dewatering well on the northern portion of Block 38 West. Samples collected from this and adjacent dewatering wells are expected to quantify some of the highest relative impacts from the BMR-Dexter CVOC Plume, if observed.

Table 1
Rationale Deep Outwash Aquifer Groundwater Performance Monitoring
South Lake Union Area Block 38 West Property
Seattle, Washington
Farallon PN: 397-061

Well No.	Well Screen Completion Depth (feet bgs)	Well Screen Completion Elevation (feet)	Well Classification	Selection Rationale
Block 77 Property				
FMW-140	70.0 to 80.0	-38.0 to -48.0	Deep	Deep Outwash Aquifer monitoring well near the edge of the predicted radius of influence of the Block 38 West construction dewatering system during concurrent dewatering at the 700 Dexter Property. Block 38 West construction dewatering influence on groundwater flow direction is expected to be limited.
Block 79 Property				
FMW-141	47.6 to 57.5	-12.45 to -22.35	Intermediate	Intermediate Zone monitoring well within the radius of influence of the BMR-Dexter Property construction dewatering system and beyond the radius of influence of the Block 38 West construction dewatering system.
MW113	70.0 to 80.0	-36.80 to -46.80	Deep	Deep Outwash Aquifer monitoring well at the outer limit of the estimated radius of influence of the Block 38 West construction dewatering system during concurrent dewatering at the 700 Dexter Property. Block 38 West construction dewatering influence on groundwater flow direction is expected to be limited.

NOTES:

[1] Construction dewatering at Block 38 West is scheduled to begin in late December 2019.

[2] Low-flow samples to be collected at top, middle, and bottom of interim action well screen (60-foot total installed length).

[3] Groundwater collected from sampling port installed at well header during construction dewatering.

Intermediate = Intermediate Water-Bearing Zone

Deep = Deep Outwash Aquifer

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
City Mega Block (southwest of 9th Avenue North and Broad Street)						
FMW-129	84.2 to 89.2	-45.56 to -50.56	38.31	11/11/2019	21.81	16.50
				12/18/2019	21.90	16.41
				3/24/2020	27.41	10.90
				4/27/2020	29.19	9.12
				5/19/2020	29.42	8.89
				7/28/2020	29.05	9.26
				9/17/2020	30.06	8.25
				12/3/2020	29.45	8.86
				2/14/2022	20.30	18.01
MW-119	35.0 to 45.0	2.74 to -7.26	37.42	11/11/2019	20.74	16.68
				1/14/2020	22.51	14.91
				2/18/2020	25.60	11.82
				3/24/2020	28.36	9.06
				4/27/2020	29.24	8.18
				5/19/2020	29.53	7.89
				7/28/2020	30.07	7.35
				9/17/2020	32.21	5.21
				12/3/2020	29.40	8.02
				2/10/2021	24.85	12.57
				2/14/2022	18.83	18.59

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
Block 37 Property						
GEI-2	50.5 to 60.5	-21.12 to -31.12	29.38	11/11/2019	13.82	15.56
				12/18/2019	14.00	15.38
				1/14/2020	16.50	12.88
				2/17/2020	20.78	8.60
				3/24/2020	22.52	6.86
				4/27/2020	23.01	6.37
				6/29/2020	22.98	6.40
				7/29/2020	23.53	5.85
				8/26/2020	23.51	5.87
				9/17/2020	23.32	6.06
				12/3/2020	22.85	6.53
				2/10/2021	18.20	11.18
				2/14/2022	12.02	17.36

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
IA-1	32.0 to 92.0	0.59 to -59.41	32.59	11/11/2019	16.85	15.74
				1/14/2020	19.91	12.68
				2/17/2020	25.38	7.21
				3/24/2020	27.15	5.44
				4/27/2020	27.24	5.35
				6/29/2020	27.45	5.14
				7/28/2020	28.06	4.53
				8/26/2020	28.05	4.54
				9/17/2020	27.71	4.88
				12/3/2020	26.92	5.67
				2/10/2021	21.26	11.33
				2/14/2022	14.3	18.29
				5/16/2022	13.56	19.03
IA-4	32.0 to 92.0	-0.84 to -60.84	31.16	11/11/2019	14.35	16.81
				2/17/2020	19.61	11.55
				4/27/2020	21.81	9.35
				6/29/2020	21.25	9.91
				8/26/2020	22.05	9.11
				12/3/2020	21.74	9.42
				2/10/2021	18.11	13.05
				2/14/2022	12.91	18.25
				5/16/2022	12.04	19.12

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
MW-128	60 to 70	-30.80 to -40.80	28.59	11/11/2019	12.49	16.10
				2/17/2020	18.11	10.48
				4/27/2020	20.15	8.44
				6/29/2020	20.13	8.46
				8/26/2020	20.55	8.04
				12/3/2020	20.21	8.38
				2/10/2021	16.38	12.21
				2/14/2022	11.00	17.59
FMW-131	62.5 to 72.5	-34.65 to -44.65	27.85	11/11/2019	12.13	15.72
				12/18/2019	12.31	17.78
				2/17/2020	20.13	7.72
				4/27/2020	22.45	5.40
				6/29/2020	22.34	5.51
				8/26/2020	23.55	4.30
				12/3/2020	22.11	5.74
				2/10/2021	17.24	10.61
				2/14/2022	10.37	17.48

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
Block 38 Property						
FMW-137	72.0 to 85.0	-44.9 to -57.9	30.09	11/20/2018	13.02	17.07
				12/28/2018	12.74	17.35
				3/14/2019	12.56	17.53
				5/6/2019	12.08	18.01
				7/8/2019	12.25	17.84
				10/14/2019	12.95	17.14
				11/11/2019	14.04	16.05
				12/18/2019	14.16	15.93
				2/14/2022	12.85	17.24
FMW-138	90.0 to 100.0	-45.96 to -55.96	40.44	11/20/2018	24.50	15.94
				12/28/2018	24.38	16.06
				3/14/2019	24.14	16.30
				5/6/2019	23.80	16.64
				7/8/2019	23.84	16.60
				10/14/2019	24.04	16.40
				11/11/2019	24.55	15.89
				12/18/2019	24.51	5.58
				2/14/2022	24.31	5.78
				5/16/2022	24.00	6.09

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
Block 77 Property						
FMW-140	70.0 to 80.0	-38.29 to -48.29	31.71	11/11/2019	15.36	16.35
				12/18/2019	15.54	16.17
				1/14/2020	17.22	14.49
				2/17/2020	20.28	11.43
				3/24/2020	22.04	9.67
				4/27/2020	22.43	9.28
				7/28/2020	23.07	8.64
				9/17/2020	23.23	8.48
				12/3/2020	22.70	9.01
				2/10/2021	19.05	12.66
				2/14/2022	13.83	17.88

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
Block 79 Property						
FMW-141	47.5 to 57.5	-12.35 to -22.35	35.15	11/11/2019	18.63	16.52
				12/18/2019	18.84	16.31
				1/14/2020	20.03	15.12
				2/17/2020	22.42	12.73
				3/24/2020	24.47	10.68
				4/27/2020	25.19	9.96
				7/28/2020	25.51	9.64
				9/17/2020	25.66	9.49
				12/3/2020	24.79	10.36
				2/10/2021	21.30	13.85
				2/14/2022	16.45	18.70

Table D-2
Groundwater Elevations
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Location	Screened Interval (feet bgs)[1]	Screened Interval (feet NAVD88)[2]	Top of Casing Elevation (feet NAVD88)[2]	Monitoring Date	Depth to Water (feet)[3]	Water Level Elevation (feet NAVD88)[2]
MW-113	70.0 to 80.0	-36.80 to -46.80	32.90	11/11/2019	16.41	16.49
				1/14/2020	18.04	14.86
				2/17/2020	20.79	12.11
				3/24/2020	22.72	10.18
				4/27/2020	23.19	9.71
				5/19/2020	23.38	9.52
				7/28/2020	23.72	9.18
				9/17/2020	23.89	9.01
				12/3/2020	23.34	9.56
				2/10/2021	19.80	13.10
				2/14/2022	14.58	18.32

Notes:

[1]Depth in feet below ground surface.

[2]In feet North American Vertical Datum of 1988.

[3]In feet below top of well casing.

bgs = below ground surface

NS = not surveyed

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Monitoring Well Groundwater Samples													
City Mega Block (southwest of 9th Avenue North and Broad Street)													
FMW-129	84.2 to 89.2	-45.56 to -50.56	5/23/2014	Farallon	F-MW-129-052314	---	48.06[4]	0.40	0.57	**17**	< 0.20	**7.6**	2.2
			10/20/2015	SES	---	---	48.06[4]	**25**	**39**	**250**	< 1	< 0.2	---
			2/2/2016	SES	---	---	48.06[4]	**13**	**61**	**240**	< 1	**0.33**	727
			4/10/2017	PES	---	---	48.06[4]	**194**	**492**	**1,420**	5.05	**0.885** J	1,605
			6/23/2017	PES	---	---	48.06[4]	**81.1**	**182**	**474**	1.21	**0.413**	1,148
			5/1/2019	PES	---	---	48.06[4]	**101**	**166**	**372**	1.22	< 0.59	---
			7/16/2019	PES	---	---	48.06[4]	**159**	**84.1**	**272**	1.61	**0.296** J	919
			10/21/2019	PES	---	---	48.06[4]	**114**	**198**	**350**	1.61	**0.259** J	1,351
			11/12/2019	Farallon	FMW-129-111219	86.7	-48.06	**79**	**130**	**340**	< 2.0	< 2.0	---
			1/14/2020[5]	Farallon	FMW-129-011420	86.7	-48.06	**130**	**170**	**290**	< 2.0	< 2.0	---
				PES	---	---	48.06[4]	**113**	**170**	**385**	1.60	< 1.18	---
			2/18/2020	Farallon	FMW-129-021820	86.7	-48.06	**110**	**170**	**310**	< 2.0	< 2.0	---
			3/25/2020	Farallon	FMW-129-032520	86.7	-48.06	**88**	**140**	**290**	< 2.0	**2.6**	111.5
			4/27/2020	Farallon	FMW-129-042720	86.7	-48.06	**74**	**88**	**190**	< 1.0	< 1.0	---
			5/19/2020	Farallon	FMW-129-051920	86.7	-48.06	**18**	**42**	**120**	< 1.0	**6.5**	18.5
			7/28/2020	Farallon	MW-129-072820	86.7	-48.06	**5.4**	**11**	**100**	< 0.80	< 0.80	---
			9/17/2020	Farallon	FMW-129-091720	86.7	-48.06	**6.1**	**13**	**70**	< 0.40	**0.85**	82.4
			12/3/2020	Farallon	FMW-129-120320	86.7	-48.06	**9.0**	**14**	**57**	< 0.40	< 0.40	---
			2/10/2021	Farallon	MW-129-021021	86.7	-48.06	1.9	4.6	**31**	< 0.20	< 0.20	---
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16[7]**	**160[7]**	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
City Mega Block (southwest of 9th Avenue North and Broad Street) (continued)													
MW-119	35.0 to 45.0	2.74 to -7.26	3/25/2013	SES	---	---	-2.26[4]	< 1	< 1	3.3	< 1	< 0.2	---
			12/19/2013	SES	---	---	-2.26[4]	< 1	< 1	2.5	< 1	**0.76**	3.3
			4/21/2015	SES	---	---	-2.26[4]	**34**	**42**	**50**	< 1	**3.1**	16
			6/17/2015	SES	---	---	-2.26[4]	4.9	**7.1**	**52**	< 1	**2.7**	19
			10/20/2015	SES	---	---	-2.26[4]	**15**	**22**	**74**	< 1	**0.45**	164
			2/2/2016	SES	---	---	-2.26[4]	**7.3**	**24**	**100**	< 1	**0.45**	222
			3/29/2017	PES	---	---	-2.26[4]	**5.47**	**10.7**	**42.9**	0.334 J	**0.272** J	158
			6/28/2017	PES	---	---	-2.26[4]	**19.0**	**12.4**	5.99	0.167 J	< 0.118	---
			4/5/2018	PES	---	---	-2.26[4]	2.14	3.02	**18.3**	0.203 J	< 0.118	---
			1/21/2019	PES	---	---	-2.26[4]	1.24	< 0.153	< 0.0933	< 0.152	< 0.118	---
			11/11/2019	Farallon	MW-119-111119	40.0	-2.26	3.7	**9.5**	10	< 0.20	< 0.20	---
			1/14/2020	Farallon	MW119-011420	40.0	-2.26	4.8	**5.1**	7.4	< 0.20	< 0.20	---
			2/18/2020	Farallon	MW-119-021820	40.0	-2.26	1.3	2.5	6.6	< 0.20	< 0.20	---
			3/24/2020	Farallon	MW119-032420	40.0	-2.26	0.24	0.87	4.7	< 0.20	< 0.20	---
			4/27/2020	Farallon	MW-119-042720	40.0	-2.26	0.32	1.3	5.1	< 0.20	< 0.20	---
			5/19/2020	Farallon	MW-119-051920	40.0	-2.26	0.91	2.8	6.1	< 0.20	< 0.20	---
			7/28/2020	Farallon	MW-119-072820	40.0	-2.26	0.92	2.6	7.5	< 0.20	< 0.20	---
			9/17/2020	Farallon	MW-119-091720	40.0	-2.26	0.27	1.8	7.8	< 0.20	< 0.20	---
			12/3/2020	Farallon	MW-119-120320	40.0	-2.26	0.28	1.2	6.6	< 0.20	< 0.20	---
			2/10/2021	Farallon	MW-119-021021	40.0	-2.26	< 0.20	0.46	5.0	< 0.20	< 0.20	---
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16[7]**	**160[7]**	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 37 Property													
GEI-2	50.5 to 60.5	-21.12 to -31.12	3/24/2017	PES	---	---	-26.12[4]	< 0.199	< 0.153	2.25	< 0.152	**6.94**	0.3
			6/23/2017	PES	---	---	-26.12[4]	< 0.199	< 0.153	**16.3**	< 0.152	**127**	0.1
			12/29/2018	Farallon	GEI-2-122918	56.0	-26.62	< 0.40	< 0.40	6.7	< 0.40	**60**	0.1
			4/22/2019	PES	---	---	-26.12[4]	< 0.199	< 0.153	11.5	< 0.152	**57.7** J	0.2
			7/16/2019	PES	---	---	-26.12[4]	< 0.199	< 0.153	1.37	< 0.152	**46.4**	0.03
			10/21/2019	PES	---	---	-26.12[4]	< 0.199	< 0.153	**20.1**	< 0.152	**88.2**	0.2
			11/11/2019	Farallon	GEI-2-111119	56.0	-26.62	< 1.0	< 1.0	**18**	< 1.0	**92**	0.2
			1/14/2020	Farallon	GEI-2-011420	56.0	-26.62	< 0.20	< 0.20	2.0	< 0.20	**36**	0.1
			1/22/2020	PES	---	---	-26.12[4]	< 0.199	0.192 J	0.308 J	< 0.152	< 0.118	---
			2/17/2020	Farallon	GE1-2-021720	56.0	-26.62	< 0.20	< 0.20	5.6	< 0.20	**34**	0.2
			3/25/2020	Farallon	GEI-2-032520	56.0	-26.62	< 0.40	< 0.40	4.3	< 0.40	**52**	0.1
			4/27/2020	Farallon	GEI-2-042720	56.0	-26.62	< 0.40	< 0.40	3.2	< 0.40	**50**	0.1
			5/19/2020	Farallon	GEI-2-051920	56.0	-26.62	< 0.40	< 0.40	2.7	< 0.40	**55**	0.05
			6/29/2020	Farallon	GEI-2-062920	56.0	-26.62	< 0.20	< 0.20	1.6	< 0.20	**33**	0.05
			7/29/2020	Farallon	GEI-2-072920	56.0	-26.62	< 0.20	< 0.20	1.3	< 0.20	**46**	0.03
			8/26/2020	Farallon	GEI-2-082620	56.0	-26.62	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			9/17/2020	Farallon	GEI-2-091720	56.0	-26.62	< 0.40	< 0.40	1.0	< 0.40	**48**	0.02
			12/4/2020	Farallon	GEI-2-120420	56.0	-26.62	< 0.20	< 0.20	0.52	< 0.20	**21**	0.02
			2/11/2021	Farallon	GEI-2-021121	56.0	-26.62	< 0.20	< 0.20	0.43	< 0.20	**16**	0.03
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16**[7]	**160**[7]	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 37 Property (continued)													
IA-1	32.0 to 92.0	0.59 to -59.41	12/29/2018	Farallon	IA1-48-122918	48.0	-15.41	< 0.20	< 0.20	**43**	< 0.20	**36**	1.2
			12/29/2018	Farallon	IA1-62-122918	62.0	-29.41	< 0.20	< 0.20	**46**	< 0.20	**40**	1.2
			12/29/2018	Farallon	IA1-76-122918	76.0	-43.41	< 0.20	< 0.20	**48**	< 0.20	**41**	1.2
			12/29/2018	Farallon	IA1-90-122918	90.0	-57.41	< 0.20	< 0.20	**48**	< 0.20	**37**	1.3
			11/11/2019	Farallon	IA-1-111119-32.0	32.0	0.59	< 1.0	< 1.0	**140**	< 1.0	**2.9**	48.3
			11/11/2019	Farallon	IA-1-111119-62.0	62.0	-29.41	< 1.0	< 1.0	**120**	< 1.0	**2.3**	52.2
			11/12/2019	Farallon	IA-1-111219-92.0	92.0	-59.41	< 0.20	< 0.20	6.9	< 0.20	**6.2**	1.1
			1/14/2020	Farallon	IA-1-011420-32.0	32.0	0.59	< 0.40	< 0.40	**72**	< 0.40	**30**	2.4
			1/14/2020	Farallon	IA-1-011420-62.0	62.0	-29.41	< 1.0	< 1.0	**89**	< 1.0	**130**	0.7
			1/14/2020	Farallon	IA-1-011420-92.0	92.0	-59.41	< 1.0	< 1.0	**89**	< 1.0	**130**	0.7
			2/17/2020	Farallon	IA-1-021720-32.0	32.0	0.59	< 0.40	< 0.40	**45**	< 0.40	**3.1**	14.5
			2/17/2020	Farallon	IA-1-021720-62.0	62.0	-29.41	< 0.40	< 0.40	**49**	< 0.40	**3.5**	14.0
			2/17/2020	Farallon	IA-1-021720-92.0	92.0	-59.41	< 1.0	< 1.0	**100**	< 1.0	**100**	1.0
			3/25/2020	Farallon	IA-1-32.0-032520	32.0	0.59	< 0.20	< 0.20	**38**	< 0.20	**5.6**	6.8
			3/25/2020	Farallon	IA-1-62.0-032520	62.0	-29.41	< 0.40	< 0.40	**88**	< 0.40	**78**	1.1
			3/25/2020	Farallon	IA-1-92.0-032520	92.0	-59.41	< 0.40	< 0.40	**92**	< 0.40	**84**	1.1
			4/27/2020	Farallon	IA-1-32.0-042720	32.0	0.59	< 0.20	< 0.20	**32**	< 0.20	**1.3**	24.6
			4/27/2020	Farallon	IA-1-62-042720	62.0	-29.41	< 0.40	< 0.40	**73**	< 0.40	**36**	2.0
			4/27/2020	Farallon	IA-1-92-042720	92.0	-59.41	< 0.40	< 0.40	**62**	< 0.40	**39**	1.6
			5/19/2020	Farallon	IA-1-32.0-051920	32.0	0.59	< 0.20	< 0.20	**32**	< 0.20	**1.1**	29.1
			5/19/2020	Farallon	IA-1-62.0-051920	62.0	-29.41	< 0.40	< 0.40	**66**	< 0.40	**37**	1.8
			5/19/2020	Farallon	IA-1-92.0-051920	92.0	-59.41	< 0.40	< 0.40	**54**	< 0.40	**29**	1.9
			6/29/2020	Farallon	IA-1-32.0-062920	32.0	0.59	< 0.20	< 0.20	**22**	< 0.20	**0.87**	25.3
			6/29/2020	Farallon	IA-1-62.0-062920	62.0	-29.41	< 0.20	< 0.20	**39**	< 0.20	**14**	2.8
			7/1/2020	Farallon	IA1-92.0-07012020	92.0	-59.41	< 0.20	< 0.20	**36**	< 0.20	**13**	2.8
			7/29/2020	Farallon	IA-1-072920-32	32.0	0.59	< 0.20	< 0.20	**25**	< 0.20	**1.2**	20.8
			7/29/2020	Farallon	IA-1-072920-62	62.0	-29.41	< 0.20	< 0.20	**27**	< 0.20	**12**	2.3
			7/29/2020	Farallon	IA-1-072920-92	92.0	-59.41	< 0.20	< 0.20	**32**	< 0.20	**14**	2.3
			8/26/2020	Farallon	IA1-32.0-082620	32.0	0.59	< 0.20	< 0.20	**32**	< 0.20	**1.2**	26.7
			8/26/2020	Farallon	IA1-62.0-082620	62.0	-29.41	< 0.20	< 0.20	**37**	< 0.20	**14**	2.6
			8/26/2020	Farallon	IA1-92.0-082620	92.0	-59.41	< 0.20	< 0.20	**31**	< 0.20	**13**	2.4
			9/17/2020	Farallon	IA-1-32.0-091720	32.0	0.59	< 0.20	< 0.20	**35**	< 0.20	**1.1**	31.8
			9/17/2020	Farallon	IA-1-62.0-091720	62.0	-29.41	< 0.20	< 0.20	**26**	< 0.20	**11**	2.4
			9/17/2020	Farallon	IA-1-92.0-091720	92.0	-59.41	< 0.20	< 0.20	**24**	< 0.20	**11**	2.2
			12/4/2020	Farallon	IA1-32.0-120420	32.0	0.59	< 0.20	< 0.20	9.8	< 0.20	**0.58**	16.9
			12/4/2020	Farallon	IA1-62.0-120420	62.0	-29.41	< 0.20	< 0.20	13	< 0.20	**8.1**	1.6
			12/4/2020	Farallon	IA1-92.0-120420	92.0	-59.41	< 0.20	< 0.20	15	< 0.20	**9.6**	1.6
			2/11/2021	Farallon	IA1-32.0-021120	32.0	0.59	< 0.20	< 0.20	11	< 0.20	**0.75**	14.7
			2/11/2021	Farallon	IA1-62.0-021120	62.0	-29.41	< 0.20	< 0.20	11	< 0.20	**0.81**	13.6
			2/11/2021	Farallon	IA1-92.0-021120	92.0	-59.41	< 0.20	< 0.20	16	< 0.20	**12**	1.3
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16[7]**	**160[7]**	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 37 Property (continued)													
IA-4	32.0 to 92.0	-0.84 to -60.84	12/29/2018	Farallon	IA4-46-122918	46.0	-14.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/29/2018	Farallon	IA4-60-122918	60.0	-28.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/29/2018	Farallon	IA4-74-122918	74.0	-42.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/29/2018	Farallon	IA4-88-122918	88.0	-56.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			11/11/2019	Farallon	IA-4-111119-32.0	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			11/11/2019	Farallon	IA-4-111119-62.0	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			11/11/2019	Farallon	AI-4-111119-92.0	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/17/2020	Farallon	IA-4-021720-32.0	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/17/2020	Farallon	IA-4-021720-62.0	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/17/2020	Farallon	IA-4-021720-92.0	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			4/27/2020	Farallon	IA-4-32-042720	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			4/27/2020	Farallon	IA-4-62-042720	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			4/27/2020	Farallon	IA-4-92-042720	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			6/29/2020	Farallon	IA-4-32.0-062920	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			6/29/2020	Farallon	IA-4-62.0-062920	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			6/29/2020	Farallon	IA-4-92.0-062920	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			8/26/2020	Farallon	IA4-32.0-082620	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			8/26/2020	Farallon	IA4-62.0-082620	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			8/26/2020	Farallon	IA4-92.0-082620	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/4/2020	Farallon	IA4-32.0-120420	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/4/2020	Farallon	IA4-62.0-120420	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/4/2020	Farallon	IA4-92.0-120420	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/11/2021	Farallon	IA4-32.0-021121	32.0	-0.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/11/2021	Farallon	IA4-62.0-021121	62.0	-30.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/11/2021	Farallon	IA4-92.0-021121	92.0	-60.84	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
FMW-131	62.5 to 72.5	-34.65 to -44.65	9/2/2016	Farallon	---	---	-39.65[4]	< 0.20	< 0.20	**41**	< 0.20	**1.7**	24.1
			3/24/2017	PES	---	---	-39.65[4]	< 0.199	< 0.153	**45.6**	< 0.152	**0.249** J	183
			6/23/2017	PES	---	---	-39.65[4]	< 0.199	< 0.153	3.61	< 0.152	**0.264** J	14
			12/18/2017	Farallon	---	---	-39.65[4]	< 0.20	< 0.20	0.61	< 0.20	< 0.20	---
			4/22/2019	PES	---	---	-39.65[4]	< 0.199	< 0.153	10.8	< 0.152	0.195 J	55.4
			10/21/2019	PES	---	---	-39.65[4]	< 0.199	< 0.153	10.5	< 0.152	0.140 J	75.0
			1/22/2020	PES	---	---	-39.65[4]	< 0.199	< 0.153	15.1	< 0.152	0.162 J	93.2
			8/26/2020	Farallon	FMW-131-082620	68.0	-40.2	< 0.20	< 0.20	6.5	< 0.20	< 0.20	---
			12/4/2020	Farallon	FMW-131-120420	68.0	-40.2	< 0.20	< 0.20	3.5	< 0.20	< 0.20	---
			2/11/2021	Farallon	FMW-131-021121	68.0	-40.2	< 0.20	< 0.20	0.27	< 0.20	< 0.20	---
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16**[7]	**160**[7]	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 37 Property (continued)													
MW-128	60 to 70	-30.80 to -40.80	1/13/2014	SES	---	---	-35.80[4]	< 1	< 1	**960** E	< 1	**290** E	3.3
			4/22/2015	SES	---	---	-35.80[4]	< 1	< 1	**150**	< 1	**59**	2.5
			10/20/2015	SES	---	---	-35.80[4]	< 1	< 1	7.0	< 1	**95**	0.1
			2/2/2016	SES	---	---	-35.80[4]	< 1	< 1	**70**	< 1	**140**	0.5
			3/29/2017	PES	---	---	-35.80[4]	< 0.199	< 0.153	7.16	< 0.152	**72.4**	0.1
			6/21/2017	PES	---	---	-35.80[4]	< 0.199	< 0.153	**109**	< 0.152	**195**	0.6
			4/9/2018	PES	---	---	-35.80[4]	< 0.199	< 0.153	3.07	< 0.152	**31.0**	0.1
			12/30/2018	Farallon	MW-128-123018	65.0	-35.80	< 1.0	< 1.0	5.0	< 1.0	**110**	0.05
			11/11/2019	Farallon	MW-128-111119	65.0	-35.80	< 0.40	< 0.40	1.4	< 0.40	**60**	0.02
			2/18/2020	Farallon	MW-128-021820	65.0	-35.80	< 0.40	< 0.40	1.4	< 0.40	**54**	0.03
			4/27/2020	Farallon	MW-128-042720	65.0	-35.80	< 0.40	< 0.40	0.87	< 0.40	**51**	0.02
			6/29/2020	Farallon	MW-128-062920	65.0	-35.80	< 0.20	< 0.20	0.51	< 0.20	**34**	0.02
			8/26/2020	Farallon	MW-128-082620	65.0	-35.80	< 0.20	< 0.20	0.46	< 0.20	**29**	0.02
			12/4/2020	Farallon	MW-128-120420	65.0	-35.80	< 0.20	< 0.20	0.40	< 0.20	**46**	0.01
			2/10/2021	Farallon	MW-128-021021	65.0	-35.80	< 0.40	< 0.40	< 0.40	< 0.40	**55**	---
Block 38 Property													
DW-3	15 to 55	10 to -30	2/4/2020	Farallon	DW-3-020420	---	---	< 0.20	< 0.20	0.21	< 0.20	< 0.20	---
			2/24/2020	Farallon	DW-3-022420	---	---	< 0.20	< 0.20	0.42	< 0.20	< 0.20	---
			3/5/2020	Farallon	DW-3-030520	---	---	< 0.20	< 0.20	0.43	< 0.20	< 0.20	---
DW-4	15 to 55	10 to -30	2/4/2020	Farallon	DW-4-020420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/24/2020	Farallon	DW-4-022420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			3/5/2020	Farallon	DW-4-030520	---	---	< 0.20	< 0.20	0.27	< 0.20	< 0.20	---
DW-5	15 to 55	10 to -30	2/4/2020	Farallon	DW-5-020420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/24/2020	Farallon	DW-5-022420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			3/5/2020	Farallon	DW-5-030520	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
DW-11	30 to 70	10 to -30	3/12/2020	Farallon	DW-11-031220	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
DW-12	29 to 69	10 to -30	3/12/2020	Farallon	DW-12-031220	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
DW-13	28 to 68	10 to -30	3/12/2020	Farallon	DW-13-031220	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
DW-14	27 to 67	10 to -30	3/12/2020	Farallon	DW-14-031220	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
DW-15	26 to 66	10 to -30	3/12/2020	Farallon	DW-15-031220	---	---	< 0.20	< 0.20	< 0.20	< 0.20	**0.26**	---
			4/10/2020	Farallon	DW-15-041020	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			6/29/2020	Farallon	DW-15-062920	---	---	< 0.20	< 0.20	0.26	< 0.20	< 0.20	---
			7/29/2020	Farallon	DW-15-072920	---	---	< 0.20	< 0.20	0.56	< 0.20	**0.36**	1.6
			8/26/2020	Farallon	DW-15-082620	---	---	< 0.20	< 0.20	0.98	< 0.20	**0.58**	1.7
			9/17/2020	Farallon	DW-15-091720	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			12/3/2020	Farallon	DW-15-120320	---	---	< 0.20	< 0.20	0.78	< 0.20	**0.46**	1.7
			2/11/2021	Farallon	DW15-021121	---	---	< 0.20	0.69	**38**	< 0.20	**0.33**	115.2
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16**[7]	**160**[7]	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 38 Property (continued)													
DW-16	24 to 64	10 to -30	1/4/2020	Farallon	DW-16-010420	---	---	< 0.20	< 0.20	0.29	< 0.20	< 0.20	---
			1/14/2020	Farallon	DW-16-011420	---	---	< 0.20	< 0.20	1.8	< 0.20	**0.32**	5.6
			2/17/2020	Farallon	DW-16-021720	---	---	< 0.20	< 0.20	9.9	< 0.20	**2.1**	4.7
			3/5/2020	Farallon	DW-16-030520	---	---	< 0.20	< 0.20	**43**	< 0.20	**5.9**	7.3
			3/12/2020	Farallon	DW-16-031220	---	---	< 0.40	< 0.40	**62**	< 0.40	**4.7**	13.2
			4/10/2020	Farallon	DW-16-041020	---	---	< 1.0	< 1.0	**160**	< 1.0	**2.5**	64.0
			4/27/2020	Farallon	DW-16-042720	---	---	< 2.0	< 2.0	**220**	< 2.0	**2.2**	100.0
			5/19/2020	Farallon	DW-16-051920	---	---	< 2.0	< 2.0	**300**	< 2.0	< 2.0	---
			6/29/2020	Farallon	DW-16-062920	---	---	< 2.0	< 2.0	**350**	< 2.0	**2.0**	175.0
			7/29/2020	Farallon	DW-16-072920	---	---	< 2.0	< 2.0	**390**	2.8	**2.5**	156.0
			8/26/2020	Farallon	DW-16-082620	---	---	< 2.0	3.0	**430**	< 2.0	**2.3**	187.0
			9/17/2020	Farallon	DW-16-091720	---	---	< 2.0	3.1	**390**	< 2.0	**2.7**	144.4
			12/3/2020	Farallon	DW-16-120320	---	---	< 2.0	3.4	**270**	< 2.0	< 2.0	---
			2/11/2021	Farallon	DW16-021121	---	---	< 4.0	**6.9**	**800**	< 4.0	< 4.0	---
DW-17	22 to 62	10 to -30	1/4/2020	Farallon	DW-17-010420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			1/14/2020	Farallon	DW-17-011420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	**3.1**	---
			2/17/2020	Farallon	DW-17-021720	---	---	< 0.20	< 0.20	0.46	< 0.20	**12**	0.04
			3/5/2020	Farallon	DW-17-030520	---	---	< 0.20	< 0.20	1.3	< 0.20	**20**	0.1
			4/10/2020	Farallon	DW-17-041020	---	---	< 0.20	< 0.20	5.1	< 0.20	**23**	0.2
			4/27/2020	Farallon	DW-17-042720	---	---	< 0.20	< 0.20	9.8	< 0.20	**22**	0.4
			5/19/2020	Farallon	DW-17-051920	---	---	< 0.20	< 0.20	**17**	< 0.20	**27**	0.6
			6/29/2020	Farallon	DW-17-062920	---	---	< 0.40	< 0.40	**55**	< 0.40	**29**	1.9
			7/29/2020	Farallon	DW-17-072920	---	---	< 0.40	< 0.40	**94**	0.42	**43**	2.2
			8/26/2020	Farallon	DW-17-082620	---	---	< 1.0	< 1.0	**140**	< 1.0	**62**	2.3
			9/17/2020	Farallon	DW-17-091720	---	---	< 1.0	< 1.0	**180**	< 1.0	**72**	2.5
			12/3/2020	Farallon	DW-17-120320	---	---	< 1.0	< 1.0	**170**	< 1.0	**79**	2.2
			2/11/2021	Farallon	DW17-021121	---	---	< 2.0	< 2.0	**320**	< 2.0	**45**	7.1
DW-18A	21 to 61	10 to -30	1/4/2020	Farallon	DW-18A-010420	---	---	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			2/17/2020	Farallon	DW-18A-021720	---	---	< 0.20	< 0.20	< 0.20	< 0.20	**11**	---
			3/5/2020	Farallon	DW-18A-030520	---	---	< 0.20	< 0.20	1.6	< 0.20	**46**	0.03
			4/10/2020	Farallon	DW-18A-041020	---	---	< 0.40	< 0.40	15	< 0.40	**76**	0.20
			4/27/2020	Farallon	DW-18A-042720	---	---	< 0.50	< 0.50	**19**	< 0.50	**83**	0.23
			5/19/2020	Farallon	DW-18A-051920	---	---	< 0.40	< 0.40	**23**	< 0.40	**83**	0.28
			6/29/2020	Farallon	DW-18A-062920	---	---	< 0.40	< 0.40	**23**	< 0.40	**69**	0.33
			7/29/2020	Farallon	DW-18A-072920	---	---	< 0.40	< 0.40	**23**	< 0.40	**65**	0.35
			8/26/2020	Farallon	DW-18A-082620	---	---	< 0.40	< 0.40	**25**	< 0.40	**55**	0.45
			9/17/2020	Farallon	DW-18A-091720	---	---	< 0.40	< 0.40	**27**	< 0.40	**53**	0.51
			12/3/2020	Farallon	DW-18A-120320	---	---	< 0.20	< 0.20	**21**	< 0.20	**25**	0.84
			2/11/2021	Farallon	DW18A-021121	---	---	< 0.20	< 0.20	**28**	< 0.20	**22**	1.27
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16[7]**	**160[7]**	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 38 Property (continued)													
FMW-137	72.0 to 85.0	-44.9 to -57.9	11/20/2018	Farallon	FMW-137-112018	80.0	-52.9	<0.20	<0.20	1.2	<0.20	<0.20	---
			12/28/2018	Farallon	FMW-137-121818	80.0	-52.9	<0.20	<0.20	1.1	<0.20	<0.20	---
			5/6/2019	Farallon	FMW-137-050619	80.0	-52.9	< 0.20	< 0.20	1.3	< 0.20	< 0.20	---
			7/8/2019	Farallon	FMW-137-070819	80.0	-52.9	< 0.20	< 0.20	1.3	< 0.20	< 0.20	---
			10/14/2019	Farallon	FMW-137-101419	79.0	-51.9	< 0.20	< 0.20	1.1	< 0.20	< 0.20	---
			11/6/2019	PES	---	---	-51.4[4]	< 0.199	< 0.153	1.27	< 0.152	< 0.118	---
			11/11/2019	Farallon	FMW-137-111119	78.5	-51.4	< 0.20	< 0.20	1.3	< 0.20	< 0.20	---
			1/22/2020	PES	---	---	-51.4[4]	< 0.199	< 0.153	1.99	< 0.152	< 0.118	---
FMW-138	90.0 to 100.0	-45.96 to -55.96	11/20/2018	Farallon	FMW-138-112018	95.0	-50.96	<0.20	<0.20	0.29	<0.20	<0.20	---
			12/28/2018	Farallon	FMW-138-122818	95.0	-50.96	<0.20	<0.20	0.34	<0.20	<0.20	---
			5/6/2019	Farallon	FMW-138-050619	95.0	-50.96	< 0.20	< 0.20	0.38	< 0.20	< 0.20	---
			7/8/2019	Farallon	FMW-138-070819	95.0	-50.96	< 0.20	< 0.20	0.34	< 0.20	< 0.20	---
			10/14/2019	Farallon	FMW-138-101419	95.0	-50.96	< 0.20	< 0.20	0.33	< 0.20	< 0.20	---
			11/11/2019	Farallon	FMW-138-111119	95.0	-50.96	< 0.20	< 0.20	0.37	< 0.20	< 0.20	---
Block 77 Property													
FMW-140	70.0 to 80.0	-38.29 to -48.29	7/17/2019	Farallon	FMW-140-071719	75.0	-43.0	< 2.0	< 2.0	**280**	< 2.0	**320**	0.9
			10/31/2019	PES	---	---	-43.0[4]	< 0.199	< 0.153	0.160 J	< 0.152	**189**	0.001
			11/12/2019	Farallon	FMW-140-111219	75.0	-43.0	< 4.0	< 4.0	**310**	< 4.0	**510**	0.6
			1/14/2020	Farallon	FMW-140-011420	75.0	-43.0	< 4.0	< 4.0	**340**	< 4.0	**460**	0.7
			1/22/2020	PES	---	---	-43.0[4]	< 0.199	< 0.153	**406**	0.729	**527**	0.8
			2/18/2020	Farallon	FMW-140-021820	75.0	-43.0	< 4.0	< 4.0	**280**	< 4.0	**530**	0.5
			3/25/2020	Farallon	FMW-140-032520	75.0	-43.0	< 2.0	< 2.0	**100**	< 2.0	**290**	0.3
			4/27/2020	Farallon	MW-140-042720	75.0	-43.0	< 1.0	< 1.0	**33**	< 1.0	**130**	0.3
			5/19/2020	Farallon	FMW-140-051920	75.0	-43.0	< 1.0	< 1.0	16	< 1.0	**130**	0.1
			7/29/2020	Farallon	MW-140-072920	75.0	-43.0	< 1.0	< 1.0	9.7	< 1.0	**170**	0.1
			9/17/2020	Farallon	FMW-140-091720	75.0	-43.0	< 0.40	< 0.40	**25**	< 0.40	**43**	0.6
			12/4/2020	Farallon	FMW-140-120420	75.0	-43.0	< 0.20	< 0.20	3.3	< 0.20	**18**	0.2
			2/10/2021	Farallon	FMW-140-021021	75.0	-43.0	< 0.20	< 0.20	0.72	< 0.20	**3.2**	0.2
FMW-142	37.5 to 42.5	-4.63 to -9.63	7/26/2019	Farallon	FMW-142-072619	40.0	-7.1	< 0.20	0.38	0.36	< 0.20	< 0.20	---
			10/31/2019	PES	---	---	-7.13[4]	< 0.199	< 0.153	< 0.0933	< 0.152	< 0.118	---
			1/22/2020	PES	---	---	-7.13[4]	< 0.199	< 0.153	< 0.0933	< 0.152	< 0.118	---
FMW-143	23.0 to 28.0	9.99 to 4.99	7/30/2019	Farallon	FMW-143-073019	25.5	7.5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	---
			10/31/2019	PES	---	---	7.5[4]	< 0.199	< 0.153	< 0.0933	< 0.152	< 0.118	---
			1/22/2020	PES	---	---	7.5[4]	< 0.199	< 0.153	< 0.0933	< 0.152	< 0.118	---
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16[7]**	**160[7]**	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 79 Property													
FMW-141	47.5 to 57.5	-12.35 to -22.35	7/26/2019	Farallon	FMW-141-072619	52.5	-17.35	< 30	**2,800**	**6,200**	< 30	**820**	7.6
			10/30/2019	PES	---	---	-17.35[4]	< 0.199	2.18 J	**1,200** J	7.13 J	**1,760**	0.7
			10/30/2019[8]	PES	---	---	-17.35[4]	< 0.199	**12.7** J	**2,250** J	10.5 J	**1,710**	1.3
			11/11/2019	Farallon	FMW-141-111119	52.5	-17.35	< 20	< 20	**3,500**	< 20	**2,900**	1.2
			1/14/2020[5]	Farallon	FMW-141-011420	52.5	-17.35	< 4.0	< 4.0	**250**	< 4.0	**380**	0.7
				PES	---	---	-17.35[4]	< 0.995	2.91	**414**	1.98 J	**532**	0.8
			2/17/2020	Farallon	FMW-141-021720	52.5	-17.35	< 2.0	< 2.0	**280**	< 2.0	**240**	1.2
			3/24/2020	Farallon	FMW-141-032420	52.5	-17.35	< 10	< 10	**1,200**	< 10	**820**	1.5
			4/27/2020	Farallon	MW-141-042720	52.5	-17.35	< 2.0	**6.5**	**440**	2.1	**490**	0.9
			5/19/2020	Farallon	FMW-141-051920	52.5	-17.35	< 20	< 20	**2,400**	< 20	**910**	2.6
			7/28/2020	Farallon	MW-141-072820	52.5	-17.35	< 10	< 10	**8,100**	20	**780**	10.4
			9/17/2020	Farallon	FMW-141-091720	52.5	-17.35	< 4.0	< 4.0	**600**	< 4.0	**620**	1.0
			12/3/2020	Farallon	FMW-141-120320	52.5	-17.35	< 1.0	< 1.0	**68**	< 1.0	**190**	0.4
			2/10/2021	Farallon	FMW-141-021021	52.5	-17.35	< 1.0	< 1.0	**120**	< 1.0	**180**	0.7
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16**[7]	**160**[7]	**0.2**	---

Table D-3
Groundwater Analytical Results for CVOCs
Deep Outwash Aquifer Groundwater
Performance Monitoring Program
Seattle, Washington
Farallon PN: 397-061

Sample Location	Screened Interval (feet bgs)[1]	Screened Interval (feet msl)[2]	Sample Date	Sampled By	Sample Identification	Sample Depth (feet bgs)[1]	Sample Elevation (feet NAVD88)[2]	Analytical Results (micrograms per liter)[3]					cDCE/Vinyl Chloride Ratio
								PCE	TCE	cDCE	tDCE	Vinyl Chloride	
Block 79 Property (continued)													
MW-113	70.0 to 80.0	-36.80 to -46.80	12/21/2012	SES	---	---	-41.80[4]	1.3 i	**440**	**5,500**	4.1	**150**	36.7
			12/19/2013	SES	---	---	-41.80[4]	< 1	**13**	**140**	< 1	**0.41**	341
			6/25/2015	SES	---	---	-41.80[4]	< 1	**19**	**670**	< 1	**17**	39
			10/27/2015	SES	---	---	-41.80[4]	< 1	4.5	**670**	1.2	**17**	39
			2/3/2016	SES	---	---	-41.80[4]	< 1	1.1	**1,500**	2.2	**13**	115
			3/22/2017	PES	---	---	-41.80[4]	< 0.199	**27.1**	**7,280**	25.4	**63.5**	115
			6/16/2017	PES	---	---	-41.80[4]	0.522	**148**	**4,750**	28.2	**53.3**	89
			4/11/2018	PES	---	---	-41.80[4]	**191**	**1,100**	**3,720**	21.3	**34.9**	107
			1/30/2019	PES	---	---	-41.80[4]	< 0.995	2.81	**6,330**	22.8	**34.8**	182
			2/7/2019	PES	---	---	-41.80[4]	< 0.199	1.77	**6,990**	25.7	**46.0**	152
			11/11/2019	Farallon	MW-113-111119	75.0	-41.80	< 50	< 50	**8,200**	< 50	**950**	8.6
			1/14/2020	Farallon	MW113-011420	75.0	-41.80	< 50	< 50	**8,000**	< 50	**1,400**	5.7
			2/18/2020	Farallon	MW-113-021820	75.0	-41.80	< 50	< 50	**9,600**	< 50	**1,800**	5.3
			3/24/2020	Farallon	MW113-032420	75.0	-41.80	< 20	< 20	**4,100**	< 20	**200**	20.5
			4/27/2020	Farallon	MW-113-042720	75.0	-41.80	< 20	< 20	**3,500**	< 20	**94**	37.2
			5/19/2020	Farallon	MW-113-051920	75.0	-41.80	< 20	< 20	**3,700**	< 20	**110**	33.6
			7/28/2020	Farallon	MW-113-072820	75.0	-41.80	**170**	**1,300**	**2,300**	10	**82**	28.0
			9/17/2020	Farallon	MW-113-091720	70.0	-36.80	**390**	**1,500**	**1,900**	< 10	**45**	42.2
			12/3/2020	Farallon	MW-113-120320	75.0	-41.80	**480**	**800**	**540**	< 4.0	**6.4**	84.4
			2/10/2021	Farallon	MW-113-021021	75.0	-41.80	2.7	**8.4**	**26**	< 0.20	< 0.20	---
MTCA Cleanup Levels for Groundwater[6]								**5**	**5**	**16[7]**	**160[7]**	**0.2**	---

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.
< denotes analyte not detected at or exceeding the reporting limit listed.
— denotes information is unknown.

[1]In feet below ground surface.
[2]In feet North American Vertical Datum of 1988.
[3]Analyzed by U.S. Environmental Protection Agency Method 8260.
[4]Actual sample depth unknown; assumed mid-point of screened interval.
[5]Split sample collected by Farallon and PES and analyzed at different laboratories.
[6]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013, unless otherwise noted.
[7]MTCA Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, updated May 2019, https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Contamination-clean-up-tools/CLARC
[8]Duplicate sample results.

bgs = below ground surface
cDCE = cis-1,2-dichloroethene
CVOC = chlorinated volatile organic compounds
E = result exceeded calibration range of instrument and is an estimate
Farallon = Farallon Consulting, L.L.C.
i = result may be due to carryover from previous sample injection at lab
J = result is an estimate
NA = not available
NS = not surveyed
PCE = tetrachloroethene
PES = PES Environmental, Inc.
SES = SoundEarth Strategies, Inc.
TCE = trichloroethene
tDCE = trans-1,2-dichloroethene

Rows highlighted in green indicate samples were collected during dewatering at Block 43 (11/2013 - 12/2014), Block 37 [pit] and Block 38 West (10/2019 - present), or the interim action at Block 37 (4/2017 - 12/2017)

APPENDIX E
CONSTRUCTION DISCHARGE COMPLIANCE MONITORING

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Table E-1
Construction Stormwater General Permit Performance and Compliance Monitoring Data
Construction Dewatering Treatment System for North and West Dewatering Wells
Block 38 West Site
Seattle, Washington
Farallon PN: 397-019

FA ID	Sample Date	Report Date	Analytical Results (micrograms per liter)																																														
			Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride
									Water Treatment Performance Samples																																									
			Influent						Post Strip						Post Lead GAC #1						Post Lag GAC #1						Post Lead GAC #2						Post Lag GAC #2						Post GAC 1 (Mid GAC)						Effluent (pre CB tanks)					
		AO Indicator Level	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*	*2.0*	*2.0*	*2.0*	*5.0*	*N/A*	*2.0*
2001474	1/29/2020	1/31/2020	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.2	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200
2002009	2/3/2020	2/5/2020	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.2	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200
2002150	2/10/2020	2/12/2020	< 1.00	< 0.500	-	**2.26**	< 1.00	< 0.2	< 1.00	< 0.500	-	**1.07**	< 1.00	< 0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200
2002282	2/17/2020	2/20/2020	< 1.00	< 0.500	< 1.00	**4.56**	< 1.00	**2.65**	< 1.00	< 0.500	< 1.00	**2.86**	< 1.00	**0.885**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2002397	2/24/2020	2/26/2020	< 1.00	< 0.500	< 1.00	**8.63**	< 1.00	**3.95**	< 1.00	< 0.500	< 1.00	**5.98**	< 1.00	**0.877**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2003004	3/2/2020	3/4/2020	< 1.00	< 0.500	< 1.00	**22.1**	<1.00	**6.47**	< 1.00	< 0.500	< 1.00	**6.86**	< 1.00	**0.346**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2003127	3/9/2020	3/11/2020	< 1.00	< 0.500	< 1.00	**31.1**	< 1.00	**7.59**	< 1.00	< 0.500	< 1.00	**1.71**	< 1.00	**0.303**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2003257	3/16/2020	3/18/2020	< 1.00	< 0.500	< 1.00	**32.9**	< 1.00	**8.59**	< 1.00	**1.62**	< 1.00	**11.0**	< 1.00	**0.911**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2003368	3/23/2020	3/25/2020	< 1.00	< 0.500	< 1.00	**45.1**	< 1.00	**9.93**	< 1.00	< 0.500	< 1.00	**12.4**	< 1.00	**0.941**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.29**	< 1.00	**0.454**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2003444	3/30/2020	4/1/2020	< 1.00	< 0.500	< 1.00	**49.6**	< 1.00	**15.0**	< 1.00	< 0.500	< 1.00	**15.7**	< 1.00	**0.841**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.268**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2004067	4/6/2020	4/8/2020	< 1.00	< 0.500	< 1.00	**76.6**	< 1.00	**12.9**	< 1.00	< 0.500	< 1.00	**22.6**	< 1.00	**2.54**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.02**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2004134	4/13/2020	4/15/2020	< 1.00	< 0.500	< 1.00	**85.4**	< 1.00	**13.4**	< 1.00	< 0.500	< 1.00	**18.0**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**3.27**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2004213	4/20/2020	4/22/2020	< 1.00	< 0.500	< 1.00	**4.88**	< 1.00	**17.6**	< 1.00	< 0.500	< 1.00	**1.81**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.64**	< 1.00	**0.776**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.563**
2004359	4/27/2020	4/29/2020	< 1.00	< 0.500	< 1.00	**99.4**	< 1.00	**14.3**	< 1.00	< 0.500	< 1.00	**17.2**	< 1.00	**0.668**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.224**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2005015	5/4/2020	5/6/2020	< 1.00	< 0.500	< 1.00	**82.2**	< 1.00	**15.9**	< 1.00	< 0.500	< 1.00	**37.8**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.586**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2005087	5/11/2020	5/13/2020	< 1.00	< 0.500	< 1.00	**133**	< 1.00	**14.2**	< 1.00	< 0.500	< 1.00	**27.9**	< 1.00	**1.11**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.07**	< 1.00	**0.559**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2005198	5/18/2020	5/20/2020	< 1.00	< 0.500	< 1.00	**96.1**	< 1.00	**11.6**	< 1.00	< 0.500	< 1.00	**32.5**	< 1.00	**0.985**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.37**	< 1.00	**0.578**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2005315	5/26/2020	5/28/2020	< 1.00	< 0.500	< 1.00	**104**	< 1.00	**14.0**	< 1.00	< 0.500	< 1.00	**70.7**	< 1.00	**3.96**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**3.70**	< 1.00	**1.20**	< 1.00	< 0.500	< 1.00	**1.88**	< 1.00	**0.752**
2006013	6/1/2020	6/3/2020	< 1.00	< 0.500	< 1.00	**127**	< 1.00	**11.3**	< 1.00	< 0.500	< 1.00	**23.7**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.80**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2006118	6/8/2020	6/10/2020	< 1.00	< 0.500	< 1.00	**110**	< 1.00	**10.6**	< 1.00	< 0.500	< 1.00	**52.3**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**6.82**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2006246	6/15/2020	6/17/2020	< 1.00	< 0.500	< 1.00	**142**	< 1.00	**12.3**	< 1.00	< 0.500	< 1.00	**53.2**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**20.4**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**4.32**	< 1.00	< 0.200
2006343	6/22/2020	6/24/2020	< 1.00	< 0.500	< 1.00	**172**	< 1.00	**21.7**	< 1.00	< 0.500	< 1.00	**76.8**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**18.7**	< 1.00	**2.86**	< 1.00	< 0.500	< 1.00	**5.58**	< 1.00	**1.83**
2006466	6/29/2020	7/1/2020	< 1.00	< 0.500	< 1.00	**160**	< 1.00	**12.1**	< 1.00	< 0.500	< 1.00	**86.1**	< 1.00	**2.64**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**13.4**	< 1.00	**1.37**	< 1.00	< 0.500	< 1.00	**1.66**	< 1.00	**0.237**
2007057	7/6/2020	7/8/2020	< 1.00	< 0.500	< 1.00	**154**	< 1.00	**12.9**	< 1.00	< 0.500	< 1.00	**93.8**	< 1.00	**3.06**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**16.1**	< 1.00	**1.67**	< 1.00	< 0.500	< 1.00	**1.28**	< 1.00	< 0.200
2007179	7/13/2020	7/15/2020	< 1.00	< 0.500	< 1.00	**134**	< 1.00	**13.8**	< 1.00	< 0.500	< 1.00	**88.1**	< 1.00	**2.58**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**7.11**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2007271	7/20/2020	7/22/2020	< 1.00	< 0.500	< 1.00	**136**	< 1.00	**11.5**	< 1.00	< 0.500	< 1.00	**84.5**	< 1.00	**2.05**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.822**	< 1.00	< 0.500	< 1.00	**3.08**	< 1.00	**0.644**
2007372	7/27/2020	7/29/2020	< 1.00	< 0.500	< 1.00	**125**	< 1.00	**10.7**	< 1.00	< 0.500	< 1.00	**64.8**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**2.82**	< 1.00	< 0.200
2008076	8/6/2020	8/7/2020	< 1.00	**0.516**	< 1.00	**136**	< 1.00	**11.7**	< 1.00	< 0.500	< 1.00	**67.6**	< 1.00	**1.76**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.15**	< 1.00	< 0.500	< 1.00	**1.72**	< 1.00	< 0.200
2008126	8/10/2020	8/12/2020	< 1.00	**0.761**	< 1.00	**225**	< 1.00	**19.5**	< 1.00	< 0.500	< 1.00	**95.8**	< 1.00	**1.71**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.37**	< 1.00	**1.94**	< 1.00	< 0.500	< 1.00	**2.55**	< 1.00	**0.533**
2008214	8/17/2020	8/19/2020	< 1.00	**0.725**	< 1.00	**172**	< 1.00	**16.2**	< 1.00	< 0.500	< 1.00	**82.3**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**2.03**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2008312	8/24/2020	8/26/2020	< 1.00	**0.736**	< 1.00	**163**	< 1.00	**15.3**	< 1.00	< 0.500	< 1.00	**85.5**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2008421	8/31/2020	9/2/2020	< 1.00	**0.865**	< 1.00	**174**	< 1.00	**18.8**	< 1.00	**0.502**	< 1.00	**116**	< 1.00	**4.38**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2009109	9/8/2020	9/9/2020	< 1.00	**1.01**	< 1.00	**175**	< 1.00	**17.0**	< 1.00	< 0.500	< 1.00	**87.2**	< 1.00	**2.32**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2009195	9/14/2020	9/16/2020	< 1.00	**1.37**	< 1.00	**226**	< 1.00	**20.7**	< 1.00	**0.537**	< 1.00	**121**	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2009310	9/21/2020	9/23/2020	< 1.00	**1.24**	< 1.00	**199**	< 1.00	**19.5**	< 1.00	< 0.500	< 1.00	**111**	< 1.00	**2.41**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.766**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2009513	9/28/2020	9/30/2020	< 1.00	**1.17**	< 1.00	**187**	< 1.00	**19.6**	< 1.00	< 0.500	< 1.00	**103**	< 1.00	**2.57**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2010042	10/5/2020	10/7/2020	< 1.00	**2.27**	< 1.00	**340**	< 1.00	**24.3**	< 1.00	**0.737**	< 1.00	**159**	< 1.00	**3.74**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.64**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.442**
2010165	10/12/2020	10/14/2020	< 1.00	**1.48**	< 1.00	**160**	< 1.00	**17.5**	< 1.00	< 0.500	< 1.00	**80.1**	< 1.00	**1.72**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**1.77**	< 1.00	< 0.200
2010296	10/19/2020	10/21/2020	< 1.00	**0.555**	< 1.00	**97.5**	< 1.00	**16.1**	< 1.00	< 0.500	< 1.00	**82.8**	< 1.00	**1.83**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**1.54**	< 1.00	< 0.200
2010416	10/26/2020	10/28/2020	< 1.00	**1.18**	< 1.00	**139**	< 1.00	**9.71**	< 1.00	**0.794**	< 1.00	**136**	< 1.00	**5.61**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.64**	< 1.00	**0.313**	< 1.00	< 0.500	< 1.00	**1.24**	< 1.00	**2.02**
2010530	10/30/2020	11/2/2020	< 1.00	**1.70**	< 1.00	**249**	< 1.00	**21.4**	< 1.00	< 0.500	< 1.00	**52.9**	< 1.00	**0.607**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.70**	< 1.00	**0.936**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2011028	11/3/2020	11/5/2020	< 1.00	**0.589**	< 1.00	**129**	< 1.00	**13.5**	< 1.00	< 0.500	< 1.00	**79.2**	< 1.00	**1.30**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2011161	11/9/2020	11/11/2020	< 1.00	**1.65**	< 1.00	**177**	< 1.00	**8.83**	< 1.00	< 0.500	< 1.00	**51.6**	< 1.00	**0.308**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2011297	11/16/2020	11/18/2020	< 1.00	**1.04**	< 1.00	**129**	< 1.00	**11.6**	< 1.00	**0.673**	< 1.00	**97.7**	< 1.00	**1.91**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**3.72**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2011466	11/23/2020	11/25/2020	<1.00	**1.57**	<1.00	**175**	<1.00	**6.28**	< 1.00	< 0.500	< 1.00	**73.1**	< 1.00	**0.700**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**7.54**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2011546	11/30/2020	12/2/2020	<1.00	**1.64**	<1.00	**165**	<1.00	**5.77**	< 1.00	< 0.500	< 1.00	**74.2**	< 1.00	**1.00**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**3.21**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2012098	12/7/2020	12/9/2020	<1.00	**1.51**	<1.00	**199**	<1.00	**10.9**	< 1.00	< 0.500	< 1.00	**77.7**	< 1.00	**1.28**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**3.69**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2012211	12/14/2020	12/16/2020	<1.00	**1.39**	<1.00	**108**	<1.00	**10.1**	< 1.00	< 0.500	< 1.00	**75.8**	< 1.00	**1.34**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.672**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**4.10**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2012387	12/21/2020	12/23/2020	<1.00	**1.29**	<1.00	**196**	<1.00	**24.4**	< 1.00	< 0.500	< 1.00	**70.7**	< 1.00	**1.31**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.743**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**4.25**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2012481	12/29/2020	12/31/2020	<1.00	<0.500	<1.00	**136**	<1.00	**63.5**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.919**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**1.12**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2101021	1/4/2021	1/6/2021	<1.00	**0.511**	<1.00	**173**	<1.00	**52.7**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.68**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.216**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2101137	1/11/2021	1/13/2021	<1.00	**0.528**	<1.00	**164**	<1.00	**44.5**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.46**	< 1.00	**1.75**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.355**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2101285	1/18/2021	1/20/2021	<1.00	**0.599**	<1.00	**187**	<1.00	**49.0**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.609**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.500**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2101378	1/25/2021	1/27/2021	<1.00	**0.684**	<1.00	**177**	<1.00	**39.3**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.946**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**1.61**	< 1.00	**0.746**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2102012	2/1/2021	2/3/2021	<1.00	**0.613**	<1.00	**175**	<1.00	**37.5**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.862**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.568**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-
2102128	2/8/2021	2/9/2021	<1.00	<0.500	<1.00	**180**	<1.00	**37.0**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.19**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	**1.80**	< 1.00	**0.605**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.671**	-	-	-	-	-	-	-	-	-	-	-	-
2102228	2/15/2021	2/17/2021	<1.00	<0.500	<1.00	**200**	<1.00	**36.7**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.847**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.389**	-	-	-	-	-	-	-	-	-	-	-	-
2102323	2/22/2021	2/24/2021	<1.00	**0.902**	<1.00	**231**	<1.00	**45.9**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.46**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.43**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.774**	-	-	-	-	-	-	-	-	-	-	-	-
2103016	3/1/2021	3/3/2021	<1.00	<0.500	<1.00	**206**	<1.00	**36.3**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.989**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.00**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.576**	-	-	-	-	-	-	-	-	-	-	-	-
2103125	3/8/2021	3/10/2021	<1.00	<0.500	<1.00	**218**	<1.00	**46.5**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.02**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.423**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.17**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.553**	-	-	-	-	-	-	-	-	-	-	-	-
2103229	3/15/2021	3/17/2021	<1.00	**0.691**	<1.00	**197**	<1.00	**52.9**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.15**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.429**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.22**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.558**	-	-	-	-	-	-	-	-	-	-	-	-
2103338	3/22/2021	3/24/2021	<1.00	**0.627**	<1.00	**221**	<1.00	**41.1**	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**1.53**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.562**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.823**	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	**0.604**	-	-	-	-	-	-	-	-	-	-	-	-
2103486	3/29/2021	3/31/2021	-	-	-	-	-	-	-	-	-	-	-	-	< 0.400	< 0.500	< 0.400	< 0.500	< 0.500	**0.832**	< 0.400	< 0.500	< 0.400	< 0.500	< 0.500	< 0.350	< 0.400	< 0.500	< 0.400	< 0.500	< 0.500	**0.496**	< 0.400	< 0.500	< 0.400	**0.554**	< 0.500	< 0.350	-	-	-	-	-	-	-	-	-	-	-	-

<u>NOTES:</u>

Bold = parameter detected, but below indicator level

Bold (red) = parameter detected at/above indicator level

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

- denotes sample not analyzed

*Indicates field measurement with Oakton pH meter and/or HACH 2100Q Turbidimeter.

Week of 12/21/20: spare swapped for "Lead GAC 2"; Current "Lead GAC 2" drained and changed out on 12/24 is now the spare.

Table E-2
Construction Stormwater General Permit Performance and Compliance Monitoring Data
Construction Dewatering Treatment System for South and East Dewatering Wells
Block 38 West Site
Seattle, Washington
Farallon PN: 397-019

FA ID	Sample Date	Report Date	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride	Tetrachloroethylene	Trichloroethylene	1,2-Dichloroethane	cis-1,2 Dichloroethene	trans-1,2 Dichloroethene	Vinyl Chloride
			Analytical Results (micrograms per liter)																																									
									Water Treatment Performance Samples																																		
			Influent						Post Lead GAC #1 (CV6k-003)						Post Lag GAC #1 (CV6k-002)						Post Lead GAC #2 (CV5k-003)						Post Lag GAC #2 (CV5k-005)						Post GAC 1 (Mid GAC)						Effluent (pre CB tanks)					
		AO Indicator Level	2.0	2.0	2.0	5.0	N/A	2.0	2.0	2.0	2.0	5.0	N/A	2.0	2.0	2.0	2.0	5.0	N/A	2.0	2.0	2.0	2.0	5.0	N/A	2.0	2.0	2.0	2.0	5.0	N/A	2.0	2.0	2.0	2.0	5.0	N/A	2.0	2.0	2.0	2.0	5.0	N/A	2.0
2002011	2/3/2020	2/5/2020	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200
2002151	2/10/2020	2/12/2020	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	-	< 1.00	< 1.00	< 0.200
2002284	2/17/2020	2/20/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2002398	2/24/2020	2/26/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200
2003024	3/3/2020	3/4/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2003128	3/9/2020	3/11/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2003256	3/16/2020	3/18/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2003369	3/23/2020	3/25/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2003445	3/30/2020	4/1/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2004066	4/6/2020	4/8/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2004135	4/13/2020	4/15/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2004214	4/20/2020	4/22/2020	< 1.00	< 0.500	< 1.00	**1.49**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2004360	4/27/2020	4/29/2020	< 1.00	< 0.500	< 1.00	**1.48**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2005016	5/4/2020	5/6/2020	< 1.00	< 0.500	< 1.00	**2.01**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2005088	5/11/2020	5/13/2020	< 1.00	< 0.500	< 1.00	**3.00**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.06**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2005199	5/18/2020	5/20/2020	< 1.00	< 0.500	< 1.00	**3.43**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.60**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2005316	5/26/2020	5/28/2020	< 1.00	< 0.500	< 1.00	**3.50**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.50**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2006012	6/1/2020	6/3/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2006117	6/8/2020	6/10/2020	< 1.00	< 0.500	< 1.00	**2.66**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2006248	6/15/2020	6/17/2020	< 1.00	< 0.500	< 1.00	**3.03**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2006344	6/22/2020	6/24/2020	< 1.00	< 0.500	< 1.00	**3.77**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2006465	6/29/2020	7/1/2020	< 1.00	< 0.500	< 1.00	**3.14**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2007056	7/6/2020	7/8/2020	< 1.00	< 0.500	< 1.00	**2.9**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2007180	7/13/2020	7/15/2020	< 1.00	< 0.500	< 1.00	**2.16**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2007277	7/20/2020	7/22/2020	< 1.00	< 0.500	< 1.00	**2.61**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2007366	7/27/2020	7/29/2020	< 1.00	< 0.500	< 1.00	**2.42**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2008083	8/6/2020	8/7/2020	< 1.00	< 0.500	< 1.00	**2.25**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2008127	8/10/2020	8/12/2020	< 1.00	< 0.500	< 1.00	**2.87**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.04**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2008213	8/17/2020	8/19/2020	< 1.00	< 0.500	< 1.00	**3.00**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.20**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2008313	8/24/2020	8/26/2020	< 1.00	< 0.500	< 1.00	**2.87**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.02**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2008420	8/31/2020	9/2/2020	< 1.00	< 0.500	< 1.00	**2.88**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2009108	9/8/2020	9/9/2020	< 1.00	< 0.500	< 1.00	**2.74**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2009194	9/14/2020	9/16/2020	< 1.00	< 0.500	< 1.00	**3.28**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2009308	9/21/2020	9/23/2020	< 1.00	< 0.500	< 1.00	**3.13**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.16**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2009512	9/28/2020	9/30/2020	< 1.00	< 0.500	< 1.00	**3.07**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2010044	10/5/2020	10/7/2020	< 1.00	< 0.500	< 1.00	**3.39**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.05**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2010164	10/12/2020	10/14/2020	< 1.00	< 0.500	< 1.00	**2.33**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	**1.28**	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2010297	10/19/2020	10/21/2020	< 1.00	< 0.500	< 1.00	**1.84**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2010415	10/26/2020	10/28/2020	< 1.00	< 0.500	< 1.00	**1.74**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2011029	11/3/2020	11/5/2020	< 1.00	< 0.500	< 1.00	**1.82**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-
2011162	11/9/2020	11/11/2020	< 1.00	< 0.500	< 1.00	**1.68**	< 1.00	< 0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	-	-	-	-	-	-	-	-	-	-	-	-
2011296	11/16/2020	11/18/2020	< 1.00	< 0.500	< 1.00	**1.37**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2011467	11/23/2020	11/25/2020	< 1.00	< 0.500	< 1.00	**1.33**	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2011545	11/30/2020	12/2/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2012097	12/7/2020	12/9/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2012212	12/14/2020	12/16/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2012388	12/21/2020	12/23/2020	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	<0.200
2101020	1/4/2021	1/6/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2101135	1/11/2021	1/13/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2101284	1/18/2021	1/20/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2101379	1/25/2021	1/27/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2102126	2/8/2021	2/9/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2102227	2/15/2021	2/17/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2102322	2/22/2021	2/24/2021	< 1.00	**0.602**	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2103015	3/1/2021	3/3/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2103126	3/8/2021	3/10/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2103230	3/15/2021	3/17/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2103337	3/22/2021	3/24/2021	< 1.00	< 0.500	< 1.00	< 1.00	< 1.00	< 0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:
Bold = parameter detected, but below indicator level
Bold (red) = parameter detected at/above indicator level
< denotes analyte not detected at or exceeding the laboratory reporting limit listed.
\- denotes sample not analyzed
*Indicates field measurement with Oakton pH meter and/or HACH 2100Q Turbidimeter.
Week of 2/10/20: GAC reconfigured from series to parallel due to higher flow rates. No Mid GAC sample collected this week.

Table E-3
Construction Stormwater General Permit Performance and Compliance Monitoring Data
Stormwater Treatment System
Block 38 West Site
Seattle, Washington
Farallon PN: 397-019

				Analytical Results (micrograms per liter)																																	
				Petroleum Hydrocarbons			Polycyclic Aromatic Hydrocarbons											Carcinogenic Polycyclic Aromatic Hydrocarbons									Chlorinated Volatile Organic Compounds					Metals			Chloroform	Field Data	
FA ID	Sample Name	Sample Date	Report Date	NWTPH-Dx: Diesel & Oil	NWTPH-Gx: Gasoline	BTEX	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)perylene	Fluoranthene	Fluorene	Napthalene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)fluoranthene**	Benzo(j)fluoranthene**	Benzo(k)fluoranthene**	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Chrysene	Tetrachloroethylene	Trichloroethylene	cis-1,2 Dichloroethene	1,2-Dichloroethane	Vinyl Chloride	Chromium, Total	Lead, Total	Mercury, Total	Chloroform	pH (standard units)*	Turbidity (NTU)*
			AO Indicator Level	*250*	*250*	*2.0*	*0.4*	*0.6*	*0.6*	*1.0*	*0.6*	*0.6*	*0.6*	*10*	*10*	*0.6*	*0.6*	*1.0*	*0.6*	*1.6*	*2.6*	*1.0*	*1.6*	*1.6*	*1.0*	*0.6*	*2.0*	*2.0*	*5.0*	*2.0*	*2.0*	*15.0*	*27.47*	*2.10*	*2.0*	*6.5 - 8.5*	*25*
1910017	Discharge	10/1/2019	10/3/2019	< 148.1	< 50	< 1	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	-	-	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	< 0.1	< 1	**8.1**	**3.45**
191033	Discharge 1	10/2/2019	10/7/2019	< 148.4	< 50	< 1	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 0.0984	-	-	< 0.0984	< 0.0984	< 0.0984	< 0.0984	< 1	< 0.5	< 1	< 1	< 0.2	< 1	**0.677**	**0.00057**	< 1	**7.9**	**5.11**
191033	Discharge 2	10/2/2019	10/7/2019	< 151.4	< 50	< 1	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 0.0990	-	-	< 0.0990	< 0.0990	< 0.0990	< 0.0990	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	< 0.0005	< 1	**7.9**	**2.68**
1910100	Discharge	10/8/2019	10/21/2019	< 148.7	< 50	< 1	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	-	-	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	< 0.0005	< 1	**7.1**	**2.94**
1910229	Discharge	10/15/2019	10/18/2019	< 147.3	< 50	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	< 0.0005	< 1	**7.7**	**4.30**
1910393	Discharge	10/22/2019	10/29/2019	< 149.7	< 50	< 1	< 0.0312	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.498	< 0.996	-	< 0.498	< 0.498	< 0.498	< 0.498	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	< 0.0005	< 1	**7.6**	**2.90**
1910510	Discharge	10/29/2019	11/4/2019	< 149.4	< 50	< 1	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	-	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 1	< 0.5	< 1	< 1	**0.512**	< 1	< 0.5	**0.00133**	< 1	**7.1**	**3.40**
1911041	Discharge	11/5/2019	11/7/2019	< 150	< 50	< 1	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	< 0.099	-	< 0.099	< 0.099	< 0.099	< 0.099	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	**0.00617**	< 1	**7.4**	**2.60**
1911141	Discharge	11/12/2019	11/14/2019	< 149.3	< 50	< 0.4945	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	-	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 1	< 0.5	< 1	< 1	< 0.2	< 1	< 0.5	< 0.0005	< 1	**7.3**	**3.10**
1911257	Discharge	11/19/2019	11/22/2019	< 148.5	< 50	< 0.4945	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	-	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 1	< 0.5	< 1	< 1	**0.803**	< 4	< 2	**0.00118**	< 1	**7.1**	**2.10**
1911365	Discharge	11/25/2019	12/3/2019	< 153.1	< 50	< 0.4945	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	-	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 1	< 0.5	< 1	< 1	**1.16**	< 1	< 0.5	**0.000522**	< 1	**7.2**	**1.70**
1912031	Discharge	12/3/2019	12/5/2019	< 149.1	< 50	**0.0947**	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 0.0976	-	< 0.0976	< 0.0976	< 0.0976	< 0.0976	< 1	< 0.5	**1.34**	< 1	**1.08**	**1.11**	**1.10**	< 0.0005	< 1	**7.6**	**1.80**
1912142	Discharge	12/10/2019	12/17/2019	< 150	< 50	< 0.4945	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 0.0996	-	< 0.0996	< 0.0996	< 0.0996	< 0.0996	< 1	< 0.5	**1.46**	< 1	**1.34**	< 1	< 0.5	**0.00144**	< 1	**7.3**	**3.30**
1912284	Discharge	12/17/2019	12/19/2019	< 149.6	< 50	< 0.4945	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 0.0995	-	< 0.0995	< 0.0995	< 0.0995	< 0.0995	< 1	< 0.5	**2.56**	< 1	**2.03**	< 1	< 0.5	< 0.0005	< 1	**7.4**	**2.70**
1912408	Discharge	12/23/2019	12/27/2019	< 149.4	< 50	< 0.4945	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	-	< 0.1	< 0.1	< 0.1	< 0.1	< 1.00	< 0.500	< 1.00	< 1.00	**0.691**	< 1.00	< 0.500	**0.000651**	< 1.00	**7.5**	**2.10**
2001097	Discharge	1/7/2020	1/9/2020	< 149.1	< 50	< 0.4945	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 0.0992	-	< 0.0992	< 0.0992	< 0.0992	< 0.0992	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**1.15**	**0.646**	< 0.0005	< 1.00	**7.7**	**2.40**
2001266	Discharge	1/17/2020	1/21/2020	< 149.1	< 50	< 0.4945	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.0992	-	< 0.12	< 0.12	< 0.12	< 0.12	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 0.0005	< 1.00	**7.7**	**1.60**
2001339	Discharge	1/22/2020	1/24/2020	< 150	< 50	< 0.4945	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	-	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**1.41**	< 0.500	**0.000618**	< 1.00	**7.8**	**2.20**
2001475	Discharge	1/29/2020	1/31/2020	< 150.1	< 50	< 0.4945	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	-	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 0.0005	< 1.00	**7.7**	**0.78**
2002010	Discharge	2/3/2020	2/5/2020	< 147.6	< 50	< 0.4945	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 0.0989	-	< 0.0989	< 0.0989	< 0.0989	< 0.0989	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**6.03**	< 0.500	**0.00199**	< 1.00	**7.7**	**2.4**
2002152	Discharge	2/10/2020	2/18/2020	< 148.2	< 50	< 0.4945	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	-	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.00710**	< 1.00	**7.6**	**1.3**
2002283	Discharge	2/17/2020	2/20/2020	< 149.1	< 50	< 0.4945	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 0.0986	-	< 0.0986	< 0.0986	< 0.0986	< 0.0986	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0005**	< 1.00	**7.6**	**15.4**
2002399	Discharge	2/24/2020	3/3/2020	< 148.1	< 50	< 0.4945	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	-	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	**0.710**	< 0.0005	< 1.00	**7.6**	**1.2**
2003009	Discharge	3/2/2020	3/5/2020	< 149.4	< 50	< 5	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	-	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0068**	< 1.00	**7.7**	**18.9**
2003130	Discharge	3/9/2020	3/13/2020	**245**	< 50	< 0.4945	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 0.0991	-	< 0.0993	< 0.0993	< 0.0993	< 0.0993	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0014**	< 1.00	**7.7**	**2.6**
2003248	Discharge	3/16/2020	3/19/2020	< 147.5	< 50	**0.206**	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	-	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	< 0.0005	< 1.00	**7.6**	**1.5**
2003367	Discharge	3/23/2020	3/25/2020	< 149.4	< 50	< 0.4945	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 0.0998	-	< 0.0998	< 0.0998	< 0.0998	< 0.0998	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.001**	< 1.00	**7.7**	**1.7**
2003446	Discharge	3/30/2020	4/1/2020	< 148	< 50	< 0.4945	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	-	<0.0991	<0.0991	<0.0991	<0.0991	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.001**	< 1.00	**7.6**	**2.1**
2004065	Discharge	4/6/2020	4/8/2020	< 149.7	< 50	< 0.4945	<0.0987	<0.0987	<0.0987	**0.181**	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	-	<0.0987	<0.0987	<0.0987	<0.0987	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0014**	< 1.00	**7.6**	**1.3**
2004133	Discharge	4/13/2020	4/15/2020	<149.2	< 50	< 0.4945	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	-	<0.0990	<0.0990	<0.0990	<0.0990	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0016**	< 1.00	**7.6**	**1.5**
2004215	Discharge	4/20/2020	4/27/2020	<147.8	< 50	< 0.4945	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	-	<0.0989	<0.0989	<0.0989	<0.0989	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0015**	< 1.00	**7.7**	**4.1**
2004361	Discharge	4/27/2020	4/27/2020	<148.2	< 50	< 0.4945	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 0.0999	-	< 0.0999	< 0.0999	< 0.0999	< 0.0999	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**1.21**	< 0.500	**0.0005**	< 1.00	**7.7**	**2.5**
2005014	Discharge	5/4/2020	5/6/2020	< 149.7	< 50	**0.253**	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 0.0994	-	< 0.0994	< 0.0994	< 0.0994	< 0.0994	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	< 1.00	< 0.500	**0.0021**	< 1.00	**7.6**	**1.6**
2005090	Discharge	5/11/2020	5/13/2020	< 149.4	< 50	< 0.4945	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	< 0.0988	<0.0988	<0.0988	<0.0988	-	<0.0988	<0.0988	<0.0988	< 0.0988	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**10.3**	< 0.500	**0.0014**	< 1.00	**7.6**	**2.2**
2005200	Discharge	5/18/2020	5/20/2020	< 148.2	< 50	< 0.4945	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	-	<0.0999	<0.0999	<0.0999	<0.0999	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.0016**	< 1.00	**7.7**	**1.9**
2005314	Discharge	5/26/2020	6/4/2020	< 149.4	< 50	< 0.4945	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	-	<0.0994	<0.0994	<0.0994	<0.0994	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**1.43**	<0.500	**0.0013**	< 1.00	**7.7**	**1.7**
2006014	Discharge	6/1/2020	6/4/2020	< 149.1	< 50	< 0.4945	<0.0987	<0.0987	<0.0987	**0.409**	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	<0.0987	-	<0.0987	<0.0987	<0.0987	<0.0987	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	**1.56**	<0.500	**0.0021**	< 1.00	**7.7**	**1.2**
2006119	Discharge	6/8/2020	6/11/2020	< 148.5	< 50	< 0.4945	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	-	<0.0981	<0.0981	<0.0981	<0.0981	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	**1.26**	**0.0017**	< 1.00	**7.6**	**1.5**
2006247	Discharge	6/15/2020	6/17/2020	< 149.2	< 50	< 0.4945	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	-	<0.0995	<0.0995	<0.0995	<0.0995	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.0026**	< 1.00	**7.8**	**1.9**
2006342	Discharge	6/22/2020	6/24/2020	< 149.4	< 50	< 0.4945	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	-	<0.0994	<0.0994	<0.0994	<0.0994	< 1.00	< 0.500	**1.91**	< 1.00	< 0.200	<1.00	<0.500	**0.0013**	< 1.00	**7.8**	**1.5**
2006467	Discharge	6/29/2020	7/1/2020	< 148.7	< 50	< 0.4945	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	-	<0.0993	<0.0993	<0.0993	<0.0993	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.001**	< 1.00	**7.7**	**1.1**
2007055	Discharge	7/6/2020	7/8/2020	< 148.0	< 50	< 0.4945	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	-	<0.0982	<0.0982	<0.0982	<0.0982	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.0012**	< 1.00	**7.7**	**7.5**
2007178	Discharge	7/13/2020	7/15/2020	< 147.3	< 50	< 0.4945	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	-	<0.0990	<0.0990	<0.0990	<0.0990	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.0011**	< 1.00	**7.7**	**1.8**
2007270	Discharge	7/20/2020	7/22/2020	< 148.2	< 50	< 0.4945	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	-	<0.0989	<0.0989	<0.0989	<0.0989	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.0012**	< 1.00	**7.6**	**1.2**
2007364	Discharge	7/27/2020	7/29/2020	< 148.5	< 50	< 0.4945	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	-	<0.0990	<0.0990	<0.0990	<0.0990	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.001**	< 1.00	**7.7**	**1.4**
2008075	Discharge	8/6/2020	8/10/2020	< 149.1	< 50	< 0.4945	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	-	<0.0999	<0.0999	<0.0999	<0.0999	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.7**	**0.9**
2008128	Discharge	8/10/2020	8/12/2020	< 149.1	< 50	< 0.4945	<0.0976	<0.0999	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	<0.0976	-	<0.0976	<0.0976	<0.0976	<0.0976	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.6**	**1.1**
2008212	Discharge	8/17/2020	8/19/2020	< 149	< 50	< 0.4945	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	-	<0.0989	<0.0989	<0.0989	<0.0989	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	**0.0008**	< 1.00	**7.7**	**1.3**
2008314	Discharge	8/24/2020	8/27/2020	< 149.1	< 50	< 0.4945	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	<0.0988	-	<0.0988	<0.0988	<0.0988	<0.0988	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.6**	**1.8**
2008422	Discharge	8/31/2020	9/2/2020	< 149.8	< 50	< 0.4945	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	-	<0.0982	<0.0982	<0.0982	<0.0982	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.7**	**1.6**
2009107	Discharge	9/8/2020	9/10/2020	< 146.7	< 50	< 0.4945	<0.0989	<0.0989	<0.0989	**0.127**	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	-	<0.0989	<0.0989	<0.0989	<0.0989	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.7**	**1.4**
2009196	Discharge	9/14/2020	9/16/2020	< 147.6	< 50	< 0.4945	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	-	<0.0998	<0.0998	<0.0998	<0.0998	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.7**	**2.5**
2009309	Discharge	9/21/2020	9/24/2020	< 148.8	< 50	< 0.4945	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	-	<0.0995	<0.0995	<0.0995	<0.0995	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.8**	**1.8**
2009511	Discharge	9/28/2020	9/30/2020	< 149.9	< 50	< 0.4945	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	<0.0999	-	<0.0999	<0.0999	<0.0999	<0.0999	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.7**	**2.0**
2010043	Discharge	10/5/2020	10/7/2020	< 148.2	< 50	< 0.4945	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	-	<0.0995	<0.0995	<0.0995	<0.0995	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.6**	**1.5**
2010163	Discharge	10/12/2020	10/14/2020	< 149.7	< 50	< 0.4945	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	-	<0.100	<0.100	<0.100	<0.100	< 1.00	< 0.500	**0.701**	< 1.00	< 0.200	**0.722**	**0.184**	< 0.100	< 1.00	**7.7**	**1.7**
2010298	Discharge	10/19/2020	10/21/2020	< 149.5	< 50	< 0.4945	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	-	<0.0991	<0.0991	<0.0991	<0.0991	< 1.00	< 0.500	**0.361**	< 1.00	< 0.200	**0.840**	<0.500	**0.0290**	< 1.00	**7.6**	**2.0**
2010414	Discharge	10/26/2020	10/28/2020	< 147.8	< 50	< 0.4945	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	-	<0.0986	<0.0986	<0.0986	<0.0986	< 1.00	< 0.500	**0.531**	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.6**	**1.4**
2011030	Discharge	11/3/2020	11/5/2020	< 148.4	< 50	< 0.4945	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	<0.0985	-	-	**0.0277**	**0.0247**	<0.0985	< 1.00	< 0.500	**0.384**	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.7**	**1.0**
2011160	Discharge	11/9/2020	11/11/2020	< 149.8	< 50	< 0.4945	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	-	-	< 0.0997	< 0.0997	< 0.0997	< 1.00	< 0.500	**0.312**	< 1.00	< 0.200	<1.00	<0.500	**0.0170**	< 1.00	**7.8**	**0.9**
2011295	Discharge	11/16/2020	11/18/2020	< 149.8	< 50	< 0.4945	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	-	-	<0.0990	<0.0990	<0.0990	< 1.00	< 0.500	**0.252**	< 1.00	< 0.200	<1.00	<0.500	< 0.100	< 1.00	**7.8**	**1.5**
2011465	Discharge	11/23/2020	11/25/2020	< 148	< 50	< 0.4945	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	-	-	<0.0995	<0.0995	<0.0995	< 1.00	< 0.500	**0.448**	< 1.00	< 0.200	**1.86**	**0.584**	< 0.100	< 1.00	**7.7**	**1.3**
2011544	Discharge	11/30/2020	12/3/2020	**82.6**	< 50	< 0.4945	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	-	-	<0.0986	<0.0986	<0.0986	< 1.00	< 0.500	**0.295**	< 1.00	< 0.200	**2.50**	**0.262**	< 0.100	< 1.00	**7.8**	**1.3**
2012094	Discharge	12/7/2020	12/9/2020	**20.1**	< 50	< 0.4945	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	-	-	<0.0992	<0.0992	<0.0992	< 1.00	< 0.500	**0.366**	< 1.00	< 0.200	**1.93**	<0.500	**0.0110**	< 1.00	**7.7**	**1.5**
2012210	Discharge	12/14/2020	12/17/2020	< 148.5	< 50	< 0.4945	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	<0.0986	-	-	<0.0986	<0.0986	<0.0986	< 1.00	< 0.500	**0.890**	< 1.00	< 0.200	<1.00	<0.500	<0.100	< 1.00	**7.7**	**1.0**
2012385	Discharge	12/21/2020	12/28/2020	**9.95**	< 50	< 0.4945	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	**0.0354**	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	<0.0982	-	-	<0.0982	<0.0982	<0.0982	< 1.00	< 0.500	**0.598**	< 1.00	< 0.200	<1.00	<0.500	<0.100	<1.00	**7.5**	**1.3**
2012480	Discharge	12/29/2020	12/31/2020	<150	< 50	< 0.4945	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	-	-	<0.0998	<0.0998	<0.0998	< 1.00	< 0.500	**0.113**	< 1.00	**0.124**	<1.00	<0.500	<0.100	<1.00	**7.3**	**1.5**
2101022	Discharge	1/4/2021	1/8/2021	<147.7	<50	< 0.4945	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	<0.0981	-	-	<0.0981	<0.0981	<0.0981	< 1.00	< 0.500	**0.632**	< 1.00	< 0.200	<1.00	**0.405**	**0.0140**	<1.00	**7.5**	**2.0**
2101136	Discharge	1/11/2021	1/13/2021	**18.6**	<50	< 0.4945	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	-	-	<0.0998	<0.0998	<0.0998	< 1.00	< 0.500	**0.204**	< 1.00	< 0.200	**0.984**	<0.500	<0.100	<1.00	**7.6**	**1.1**
2101283	Discharge	1/18/2021	1/20/2021	<149.8	<50	< 0.4945	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	<0.0995	-	-	<0.0995	<0.0995	<0.0995	< 1.00	< 0.500	**1.04**	< 1.00	< 0.200	**1.25**	**0.192**	**0.0110**	<1.00	**7.5**	**1.1**
2101380	Discharge	1/25/2021	1/27/2021	<149.1	<50	< 0.4945	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	< 0.0997	-	-	< 0.0997	< 0.0997	< 0.0997	< 1.00	< 0.500	**0.543**	< 1.00	< 0.200	**0.462**	<0.500	**0.0260**	<1.00	**7.4**	**0.8**
2102013	Discharge	2/1/2021	2/3/2021	<199.8	<50	< 0.4945	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	-	-	<0.0998	<0.0998	<0.0998	< 1.00	< 0.500	**0.430**	< 1.00	< 0.200	**0.412**	**0.327**	<0.100	<1.00	**7.5**	**1.2**
2102127	Discharge	2/8/2021	2/10/2021	<198.8	<50	< 0.4945	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	<0.0980	-	-	<0.0980	<0.0980	<0.0980	< 1.00	< 0.500	**0.343**	< 1.00	**0.358**	**0.496**	**0.497**	**0.0420**	<1.00	**7.3**	**1.0**
2102226	Discharge	2/15/2021	2/17/2021	<196	<50	< 0.4945	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	<0.0998	-	-	<0.0998	<0.0998	<0.0998	< 1.00	< 0.500	**0.418**	< 1.00	< 0.200	**0.418**	**0.306**	<0.100	<1.00	**7.4**	**1.2**
2102321	Discharge	2/22/2021	2/24/2021	<199	<50	< 0.4945	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	<0.0991	-	-	<0.0991	<0.0991	<0.0991	< 1.00	< 0.500	< 1.00	< 1.00	< 0.200	<1.00	<0.500	<0.100	<1.00	**7.5**	**0.9**
2103014	Discharge	3/1/2021	3/3/2021	<197	<50	< 0.4945	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	<0.0993	-	-	<0.0993	<0.0993	<0.0993	< 1.00	< 0.500	**0.300**	< 1.00	< 0.200	**0.582**	**0.418**	<0.100	<1.00	**7.6**	**1.4**
2103124	Discharge	3/8/2021	3/10/2021	<199.6	<50	< 0.4945	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	<0.0989	-	-	<0.0989	<0.0989	<0.0989	< 1.00	< 0.500	**0.556**	< 1.00	**0.542**	**3.49**	**0.437**	<0.100	<1.00	**7.5**	**1.2**

Table F-3
Construction Stormwater General Permit Performance and Compliance Monitoring Data
Stormwater Treatment System
Block 38 West Site
Seattle, Washington
Farallon PN: 397-019

				Analytical Results (micrograms per liter)																																		
				Petroleum Hydrocarbons			Polycyclic Aromatic Hydrocarbons											Carcinogenic Polycyclic Aromatic Hydrocarbons									Chlorinated Volatile Organic Compounds					Metals			Chloroform	Field Data	
FA ID	Sample Name	Sample Date	Report Date	NWTPH-Dx: Diesel & Oil	NWTPH-Gx: Gasoline	BTEX	Acenaphthene	Acenaphthylene	Anthracene	Benzo(g,h,i)perylene	Fluoranthene	Fluorene	Napthalene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(j,k)fluoranthene**	Benzo(j)fluoranthene**	Benzo(k)fluoranthene**	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Chrysene	Tetrachloroethylene	Trichloroethylene	cis-1,2 Dichloroethene	1,2-Dichloroethane	Vinyl Chloride	Chromium, Total	Lead, Total	Mercury, Total	Chloroform	pH (standard units)*	Turbidity (NTU)*
			AO Indicator Level	*250*	*250*	*2.0*	*0.4*	*0.6*	*0.6*	*1.0*	*0.6*	*0.6*	*0.6*	*10*	*10*	*0.6*	*0.6*	*1.0*	*0.6*	*1.6*	*2.6*	*1.0*	*1.6*	*1.6*	*1.0*	*0.6*	*2.0*	*2.0*	*5.0*	*2.0*	*2.0*	*15.0*	*27.47*	*2.10*	*2.0*	*6.5 - 8.5*	*25*
2103228	Discharge	3/15/2021	3/17/2021	<199	<50	< 0.4945	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	<0.0983	-	-	<0.0983	<0.0983	<0.0983	< 1.00	< 0.500	**0.865**	< 1.00	< 0.200	**1.64**	**0.461**	<0.100	<1.00	**7.4**	**0.7**
2103339	Discharge	3/22/2021	3/24/2021	<196.8	<50	< 0.4945	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	<0.0984	-	-	<0.0984	<0.0984	<0.0984	< 1.00	< 0.500	**0.472**	< 1.00	**0.460**	**2.07**	<0.500	<0.100	<1.00	**7.5**	**1.4**
2103485	Discharge	3/29/2021	4/2/2021	<197	<50	< 1.209	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	<0.0992	-	-	<0.0992	<0.0992	<0.0992	< 0.400	< 0.500	< 0.500	< 0.400	< 0.350	**3.11**	<0.500	<0.100	<0.500	**7.5**	**1.2**
2104048	Discharge	4/5/2021	4/8/2021	<197	<50	< 1.209	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	**0.0208**	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	<0.0990	-	-	<0.0990	<0.0990	<0.0990	< 0.400	< 0.500	< 0.500	< 0.400	< 0.350	**2.25**	<0.500	<0.100	<0.500	-	-
2104155	Discharge	4/12/2021	4/14/2021	<196.2	<50	< 1.209	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994	<0.0994		-	<0.0994	<0.0994	<0.0994	< 0.400	< 0.500	< 0.500	< 0.400	< 0.350	**4.32**	<0.500	<0.100	<0.500	-	-

NOTES:

Bold = parameter detected, but below indicator level

Bold (red) = parameter detected at/above indicator level

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

- denotes sample not analyzed or not measured.

*Indicates field measurement with Oakton pH meter and/or HACH 2100Q Turbidimeter.

**Benzo(j,k)fluoranthene is reported as the sum of the j and k isomers (i.e, benzo(j)fluoranthene + benzo(k)fluoranthene). The Washington State Department of Ecology approved this reporting method in emails dated 10/23/2019.

Grey shading indicates that the values reflect water from the Block 37 bore pit; no water from Block 38 was included in these sample results.

BTEX = benzene, toluene, ethylbenzene and xylenes

NTU = Nephelometric Turbidity unit

Table E-4
King County Industrial Wastewater Discharge Compliance Data
Block 38 West Site
Seattle, Washington
Farallon PN: 397-019

				Analytical Results (micrograms per liter)									Analytical Results (milligrams per liter)	Field Data
FA ID	Sample Name	Sample Date	Report Date	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Naphthalene	Tetrachloroethene	Trichloroethene	1,2-Dichloroethene (Total cis- and trans-)	Vinyl Chloride	HEM (oil, total)	pH (standard units)*
	King County Industrial Waste Limit			*70*	*1400*	*1700*	*2200*	*3820*	*240*	*500*	*2000*	*120*	*100*	*5.5 - 12.0*
1910392	Discharge	10/22/2019	10/24/2019	< 1.00	< 1.00	< 1.00	< 2.00	< 0.0988	< 1.00	< 0.5	**11.6**	**4.79**	< 3.82	-
1911372	Discharge	11/25/2019	12/4/2019	< 1.00	< 1.00	< 1.00	< 2.00	< 0.0989	< 1.00	< 0.5	**25.7**	**14.4**	< 3.83	-
1912145	Sewer	12/10/2019	12/17/2019	< 1.00	< 1.00	< 1.00	< 2.00	< 0.0997	< 1.00	< 0.5	**30.6**	**15.0**	< 4.18	-
2002190	Discharge	2/11/2020	2/18/2020	< 1.00	< 1.00	< 1.00	< 2.00	**2.26**	< 1.00	< 0.500	< 2.00	< 0.200	< 3.83	**8.1**
2003077	Discharge	3/6/2020	3/13/2020	< 0.0747	< 0.0912	< 0.0868	< 0.2418	< 1.00	< 1.00	< 0.500	< 2.00	< 0.200	< 3.84	-
2003289	Discharge	3/17/2020	3/24/2020	< 0.0747	**0.125**	**0.133**	**0.651**	**2.77**	< 1.00	< 0.500	**7.71**	< 0.200	< 3.84	**8.7**
2004089	Sewer	4/7/2020	4/14/2020	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 0.500	**14.0**	< 0.200	**9.11**	-
2005388	Discharge	5/28/2020	6/4/2020	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 0.500	**16.4**	**0.281**	< 3.81	-
2006207	Discharge	6/11/2020	6/18/2020	< 0.0747	< 0.0912	< 0.0868	< 0.2418	< 1.00	< 1.00	< 0.500	**34.9**	< 0.200	< 5.00	-
2007100	Discharge	7/7/2020	7/14/2020	< 0.0747	< 0.0912	< 0.0868	< 0.2418	< 1.00	< 1.00	< 0.500	**40.1**	**0.444**	< 3.92	**7.9**
2008035	Discharge	8/4/2020	8/11/2020	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 0.500	**27.5**	< 0.200	< 3.82	-
2009552	Sewer	9/29/2020	10/7/2020	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 0.500	**43.4**	< 0.200	< 3.80	**7.1**
2010464	Discharge	10/28/2020	11/3/2020	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 0.500	**37.1**	< 0.200	< 3.85	-
2102421	Discharge	2/26/2021	3/4/2021	< 1.00	< 1.00	< 1.00	< 2.00	< 1.00	< 1.00	< 0.500	**28.23**	**0.867**	< 3.86	-

NOTES:

Bold = parameter detected, but below KCIW limit.

Bold (red) = parameter detected at/above KCIW limit.

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

- denotes sample not analyzed or not measured.

*Indicates field measurement with Oakton pH meter.

Grey shading indicates that the values reflect water from the Block 37 bore pit; no water from Block 38 was included in these sample results.

HEM = hexane extractable materials

KCIW = King County Industrial Waste Limit

APPENDIX F
DATA VALIDATION REPORT

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

DATA VALIDATION REPORT

BLOCK 38 WEST SITE
500 THROUGH 536 WESTLAKE AVENUE NORTH
SEATTLE, WASHINGTON

Agreed Order No. DE 17963
Facility Site Identification No. 62773
Cleanup Site Identification No. 15008

Submitted by:
Farallon Consulting, L.L.C.
975 5th Avenue Northwest
Issaquah, Washington 98027

Farallon PN: 397-019

For:
City Investors IX LLC
505 5th Avenue South
Seattle, Washington 98104

August 13, 2021

Prepared by:

Jeanette Mullin, L.G.
Environmental Data Manager

Reviewed by:

Eric Buer, L.G., L.H.G.
Principal Hydrogeologist

TABLE OF CONTENTS

TABLES

1.0 INTRODUCTION

This report provides a summary of quality assurance (QA) data validation findings. Data validation was performed for the following environmental samples:

Project Name:	Block 38 West Site
Project No.:	397-019
Lab Name:	OnSite Environmental Inc. (OnSite), Redmond, Washington
Lab Reference No.:	55 Sample Delivery Groups identified in Table 1
Matrices:	Soil and Groundwater

Table 1 identifies the 55 Sample Delivery Groups (SDGs) analyzed by OnSite, the number of samples within each delivery group, the sample matrix, and the analytical methods used to analyze one or more samples within each delivery group.

This review of project data was performed using the U.S. Environmental Protection Agency's (EPA) National Functional Guidelines for Organic Superfund Methods Data Review (USEPA-540-R-2017-002) dated January 2017, and National Functional Guidelines for Inorganic Superfund Methods Data Review (USEPA-540-R-2017-001) dated January 2017.

This report includes a review of holding times, method blanks, matrix spike and spike blank recoveries, matrix spike duplicate and spike blank duplicate data, duplicates, surrogates, and chain-of-custody records. As shown in Table 1, select samples were analyzed for total petroleum hydrocarbons (TPH) in the diesel- and oil-range by Northwest Method NWTPH-Dx, TPH in the gasoline-range by Northwest Method NWTPH-Gx, and TPH by Northwest Method NWTPH-HCID (hydrocarbon identification); volatile organic compounds (VOCs) by EPA Method 8021B; VOCs by EPA Method 8260C or 8260D; semivolatile organic compounds (SVOCs) by EPA Method 8270D/Selective Ion Monitoring (SIM) mode or 8270E/SIM; polychlorinated biphenyl (PCB) Aroclors by EPA Method 8082A; metals by EPA Method 6010D or 6020B, and mercury by EPA Method 7471B.

1.1 OVERALL DATA ASSESSMENT

All data are of known quality and are acceptable for use. No results were rejected as a result of this data assessment. Data qualified during this validation effort is summarized in Table 2 and discussed in the sections below.

1.2 DATA QUALIFIER DEFINITIONS

Following are definitions of data qualifiers used during data validation:

J+ (Estimated High Bias): The result is an estimated quantity and the result may be biased high based on non-conformances identified during data validation.

J- (Estimated Low Bias): The result is an estimated quantity and the result may be biased low based on non-conformances identified during data validation.

J- (Estimated): The result is an estimated quantity based on non-conformances identified during data validation.

UJ (Non-detected estimated): The analyte was reported as not detected by the laboratory; however, the reporting limit is estimated due to non-conformances identified during data validation.

1.3 CHAIN-OF-CUSTODY

Field chain-of-custody forms were complete. All chain-of-custody forms were signed and dated. No issues with sample receipt conditions were indicated in the Case Narrative section of the laboratory reports except as noted below. All samples listed on the chain-of-custody forms were analyzed as indicated:

- **SDG 1901-097:** Volatile organic analysis vials were not received for sample PH-13-3.0-011219 in accordance with Method 5035A for analysis by Northwest Method NWTPH-Gx. A sample aliquot was extracted from a 4-ounce jar for analysis and some loss of volatiles may have occurred. The non-detect result for this sample is qualified as not detected and the reporting limit is an estimate (UJ) as shown in Table 2.
- **SDG 1901-158:** Volatile organic analysis vials were not received for sample PH-11A-4.0-011919 in accordance with Method 5035A for analysis by Northwest Method NWTPH-Gx. A sample aliquot was extracted from a 4-ounce jar for analysis and some loss of volatiles may have occurred. The non-detect result for this sample is qualified as not detected and the reporting limit is an estimate (UJ) as shown in Table 2.
- **SDG 2002-223:** Soil samples I3-B-15.0, I3-B-20.0, N2-B-10.0, and N2-B-15.0 were received by the laboratory 2 hours outside the 48-hour holding time specified by Method 5035A for unpreserved samples to be analyzed by Northwest Method NWTPH-Gx and

EPA Method 8021B. The non-detect results for these samples are qualified as not detected and the reporting limits are estimates (UJ) as shown in Table 2.

1.4 COMPLETENESS

Completeness is expressed as the ratio of valid results to the amount of data expected to be obtained under normal conditions. Completeness is determined by assessing the number of samples for which valid results were obtained versus the number of samples that were submitted to the laboratory for analysis. Valid results are results that are determined to be usable during the data validation review process.

The completeness of this data set is 100 percent.

2.0 PETROLEUM HYDROCARBON NWTPH-DX QA REVIEW

2.1 TIMELINESS AND PRESERVATION

The recommended holding time for Northwest Method NWTPH-Dx soil and preserved groundwater samples is 14 days to extract and 40 days to analyze after extraction. All samples were extracted and analyzed within holding times except for the following sample:

- **SDG 1912-093:** Soil sample N3-20.0-121019 was analyzed 1 day outside of the holding time. The non-detect results for this sample are qualified as not detected and the reporting limits are estimates (UJ) as shown in Table 2.

2.2 FIELD QUALITY CONTROL SAMPLES

One field duplicate water sample was collected and analyzed by Northwest Method NWTPH-Dx. The duplicate sample and parent sample are:

Field Duplicate Sample ID	Parent Sample ID
FMW500-122818	FMW134-122818

See Table 3 for the calculation of the relative percent difference (RPD) for diesel- and oil-range organics. The results were less than five times the practical quantitation limit (PQL) so the absolute differences between the results were calculated. The absolute RPD differences were below standard RPD limits of less than one times the PQL when the original or duplicate sample results are less than five times the PQL.

2.3 LABORATORY QUALITY CONTROL SAMPLES

2.3.1 Quality Control Analysis Frequency

Method blanks were analyzed at a minimum frequency of 5 percent (or one per batch). Duplicates were analyzed at a rate of 1 duplicate per 10 samples with a minimum of 1 duplicate per SDG. These criteria were met for all delivery groups.

2.3.2 Method Blanks

No target analytes were detected in the soil or groundwater method blanks at or exceeding the reporting limits for all delivery groups.

2.3.3 Laboratory Duplicates

RPDs of all analytes were within the laboratory's quality control (QC) limits for all delivery groups. In cases where the RPD was elevated, the duplicate was performed on a non-project sample where heterogeneity and matrix impacts may have been present. No qualification of project samples is needed.

2.3.4 Surrogate Recoveries

The laboratory used one surrogate spike compound for Method NWTPH-Dx. All surrogate recoveries were within the laboratory's QC limits for all delivery groups except as noted below. The o-terphenyl surrogate spike was not recovered in the following samples due to sample dilution to address high concentrations of target analyses:

- **SDG 1808-229:** Sample FB-01-5.0-082118;
- **SDG 1901-158:** Sample PH-12-4.0-011919;
- **SDG 1912-207:** Sample TP-2-15.0-121919;
- **SDG 1912-230:** Sample FB-08-2.5;
- **SDG 2001-179:** Sample M1-24.5;
- **SDG 2001-349:** Sample UST-01-line-21.0;
- **SDG 2002-097:** Sample N1-WSW-17.0; and
- **SDG 2002-150:** Sample K3-B-20.0.

No qualifications of sample results are needed based on the lack of surrogate recovery in these samples.

3.0 PETROLEUM HYDROCARBON NWTPH-GX QA REVIEW

3.1 TIMELINESS AND PRESERVATION

The recommended holding time for Northwest Method NWTPH-Gx soil and preserved groundwater samples is 14 days. All samples were extracted and analyzed within this period except as noted below:

- **SDG 1912-093:** Soil sample N3-20.0-121019 was analyzed 1 day outside of the holding time. The non-detected gasoline result for this sample is qualified as not detected and the reporting limit is an estimate (UJ) as shown in Table 2.
- **SDG 2002-032:** Soil samples H4-ESW-20.0 and H4-ESW2-20.0 were analyzed 7 days outside of the holding time. The non-detected gasoline results for these two samples are qualified as non-detected estimated (UJ) as shown in Table 2.
- **SDG 2002-223:** Soil samples I3-B-15.0, I3-B-20.0, N2-B-10.0, and N2-B-15.0 were received by the laboratory 2 hours outside the 48-hour holding time specified for unpreserved samples to be analyzed by Northwest Method NWTPH-Gx as noted in Section 1.3. The non-detect results for these samples are qualified as non-detected estimated (UJ) as shown in Table 2.

3.2 FIELD QUALITY CONTROL SAMPLES

One field duplicate water sample was collected and analyzed by Northwest Method NWTPH-Gx. The duplicate sample and parent sample are:

Field Duplicate Sample ID	Parent Sample ID
FMW500-122818	FMW134-122818

See Table 3 for the calculation of the RPDs for gasoline-range organics. Gasoline-range organics were not detected in the field duplicate or parent sample.

3.3 LABORATORY QUALITY CONTROL SAMPLES

3.3.1 Quality Control Analysis Frequency

Method blanks were analyzed at a frequency of 1 method blank per 10 samples. Duplicates, spike blanks/spike blank duplicates, and/or matrix spikes/matrix spike duplicates were analyzed at a frequency of 1 per 10 samples. These criteria were met for all delivery groups.

3.3.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

3.3.3 Laboratory Duplicates, Spike Blanks/Spike Blank Duplicates, and/or Matrix Spikes/Matrix Spike Duplicates

Recoveries and RPDs of all analytes were within the laboratory's QC limits for all delivery groups.

3.3.4 Surrogate Recoveries

The laboratory used one surrogate spike compound for Method NWTPH-Gx. All surrogate recoveries were within the laboratory's QC limits for all delivery groups.

4.0 PETROLEUM HYDROCARBON NWTPH-HCID QA REVIEW

4.1 TIMELINESS AND PRESERVATION

The recommended holding time for Northwest Method NWTPH-HCID soil samples is 14 days to extract and 40 days to analyze after extraction. All samples were extracted and analyzed within holding times.

4.2 LABORATORY QUALITY CONTROL SAMPLES

4.2.1 Quality Control Analysis Frequency

Method blanks were analyzed at a frequency of 1 method blank per 10 samples. These criteria were met for all delivery groups.

4.2.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

4.2.3 Surrogate Recoveries

The laboratory used one surrogate spike compound for Method NWTPH-HCID. Surrogates were not able to be recovered for the following:

- **SDG 2001-179:** The surrogate o-terphenyl was not able to be recovered in Sample M1-24.5-Product due to the necessary dilution of the sample as a result of the elevated concentrations of target analytes. No qualifications of sample results are needed.
- **SDG 2002-043:** The surrogate o-terphenyl was not able to be recovered in Sample UST-02-Product due to the necessary dilution of the sample as a result of the elevated concentrations of target analytes. No qualifications of sample results are needed.

5.0 VOLATILE ORGANIC COMPOUND 8021B QA REVIEW

5.1 TIMELINESS

The recommended holding time for EPA Method 8021B is 14 days for soil samples and 14 days for preserved water samples. All samples were extracted and analyzed within this period except as noted below:

- **SDG 1912-093:** Soil sample N3-20.0-121019 was analyzed 1 day outside of the holding time. The non-detected results for this sample are qualified as not detected and the reporting limits are estimates (UJ) as shown in Table 2.
- **SDG 2002-223:** Soil sample I3-B-20.0 was received by the laboratory 2 hours outside the 48-hour holding time specified by Method 5035A for preservation of samples to be analyzed by EPA Method 8021B as noted in Section 1.3, Chain-of-Custody. The non-detect results for this sample are qualified as not detected and the reporting limits are estimates (UJ) as shown in Table 2.

5.2 LABORATORY QUALITY CONTROL SAMPLES

5.2.1 Quality Control Analysis Frequency

Method blanks were analyzed at a frequency of 1 method blank per 10 samples. Duplicates, spike blanks/spike blank duplicates, and/or matrix spikes/matrix spike duplicates were analyzed at a frequency of 1 per 10 samples. These criteria were met for all delivery groups.

5.2.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

5.2.3 Laboratory Duplicates, Spike Blanks/Spike Blank Duplicates, and/or Matrix Spikes/Matrix Spike Duplicates

Recoveries and RPDs of all analytes were within the laboratory's QC limits for all delivery groups.

5.2.4 Surrogate Recoveries

The laboratory used one surrogate spike compound for EPA Method 8021B. All surrogate recoveries were within the laboratory's QC limits for all delivery groups.

6.0 VOLATILE ORGANIC COMPOUND 8260C/D QA REVIEW

6.1 TIMELINESS

The recommended holding time for EPA Method 8260C/8260D is 14 days for preserved soil samples and 14 days for preserved water samples. All samples were extracted and analyzed within this period.

6.2 FIELD QUALITY CONTROL SAMPLES

One field duplicate water sample was collected and analyzed by EPA Method 8260C. The duplicate sample and parent sample are:

Field Duplicate Sample ID	Parent Sample ID
FMW500-122818	FMW134-122818

See Table 3 for calculation of the RPDs for VOCs. VOCs were not detected in the field duplicate or parent sample.

6.3 LABORATORY QUALITY CONTROL SAMPLES

6.3.1 Quality Control Analysis Frequency

Method blanks were analyzed at a frequency of 1 method blank per 10 samples. Spike blanks/spike blank duplicates were analyzed at a frequency of 1 per 10 samples. These criteria were met for all delivery groups.

6.3.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

6.3.3 Spike Blanks/Spike Blank Duplicates

Recoveries and RPDs of all analytes were within the laboratory's QC limits for all delivery groups.

6.3.4 Surrogate Recoveries

The laboratory used three surrogate spike compounds for EPA Method 8260C/8260D. All surrogate recoveries were within the laboratory's QC limits for all delivery groups.

7.0 SEMIVOLATILE ORGANIC COMPOUND QA REVIEW

7.1 TIMELINESS

The recommended holding time for EPA Method 8270D/SIM or 8270E/SIM soil samples is 14 days to extract and 40 days to analyze after extraction; and the recommended holding time for water samples is 7 days to extract and 40 days to analyze after extraction. All samples were extracted and analyzed within this period except for the following:

- **SDG 1808-272:** Soil sample FB-06-10.0-082218 was extracted and analyzed 1 day outside of the holding time. The non-detect results for this sample are qualified as not detected, the reporting limits are estimates (UJ), and the one detected analyte (pyrene) is qualified as an estimate (J) as shown in Table 2.
- **SDG 2002-069:** Soil sample N2-B-20.0 was extracted and analyzed 5 days outside of the holding time. The results for this sample are qualified as estimates (J).

7.2 FIELD QUALITY CONTROL SAMPLES

One field duplicate water sample was collected and analyzed by EPA Method 8270D/SIM. The duplicate sample and parent sample are:

Field Duplicate Sample ID	Parent Sample ID
FMW500-122818	FMW134-122818

See Table 3 for calculation of the RPDs for SVOCs. Where sample results were less than five times the PQL, the absolute difference between the results was calculated instead of an RPD. The results were compared to the following criteria: an RPD less than 20 percent, or an absolute difference less than the PQL for results less than five times the PQL. Four polycyclic aromatic hydrocarbons results for water sample FMW134-122818 and its duplicate did not meet the criteria, and these original and duplicate results are qualified as estimates (J) as shown on Table 2.

7.3 LABORATORY QUALITY CONTROL SAMPLES

7.3.1 Quality Control Analysis Frequency

Method blanks and spike blanks/spike blank duplicates (or matrix spikes/matrix spike duplicates) were analyzed at a minimum frequency of 5 percent (or one per batch). These criteria were met for all delivery groups.

7.3.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

7.3.3 Spike Blanks/Spike Blank Duplicates and/or Matrix Spikes/Matrix Spike Duplicates

Recoveries and RPDs of all analytes were within the laboratory's QC limits for all delivery groups except for the following:

- **SDG 1808-272:** The percent recovery of pentachlorophenol in the spike blank duplicate exceeded the upper control limit. This analyte was not detected in the one sample in the associated batch and no action is needed.

7.3.4 Surrogate Recoveries

The laboratory used between three and six surrogate spike compounds for EPA Method 8270D/SIM or 8270E/SIM for soil and water samples depending on the list of reported SVOCs. Surrogate recoveries were within the laboratory's QC limits for all delivery groups except as noted below:

- **SDG 1808-293:** The percent recovery of the surrogate 2,4,6-tribromophenol was less than the lower control limit for soil sample FMW-133-20.0-082418. The non-detect results associated with this surrogate for this sample are qualified as not detected and the reporting limits are estimates (UJ) as shown in Table 2.
- **SDG 1808-374:** The percent recovery of the surrogate 2-fluorobiphenyl exceeded the upper control limit in the water method blank. Surrogate recoveries in all project samples in this delivery group were within control limits and no action is needed.
- **SDG 1808-375:** The percent recovery of the surrogate 2-fluorobiphenyl exceeded the upper control limit in the water method blank. Surrogate recoveries in all project samples in this delivery group were within control limits and no action is needed.

- **SDG 1901-158:** The percent recovery of the surrogate terphenyl-d14 was less than the lower control limit for soil sample PH-11A-4.0-011919. All results are qualified as estimates with a low bias (J-) as shown in Table 2.
- **SDG 1912-256:** The percent recovery of the surrogate pyrene-d10 exceeded the upper control limit for water sample FMW-146-122619. The analytes associated with this surrogate compound, benzo(a)anthracene and chrysene, were detected in the sample and the results are qualified as estimates with a high bias (J+). The percent recovery of pyrene-d10 exceeded the upper control limit in spike blank SB1226W1 and spike blank duplicate SB1231W2. No action is needed as this surrogate was within control limits for the other project samples in the batch except for FMW-146-122619 as described earlier.
- **SDG 2001-349:** The percent recovery of the surrogate 2-fluorobiphenyl exceeded the upper control limit in soil sample UST-01-line-21.0. The analytes associated with this surrogate compound, 2-methylnaphthalene and 1-methylnaphthalene, were detected in the sample and the results are qualified as estimates with a high bias (J+).
- **SDG 2002-032:** Surrogates were not able to be recovered in soil sample I4-ESW-20.0 due to the necessary dilution of the sample as a result of elevated concentrations of target analytes. No qualifications of sample results are needed.

8.0 PCB AROCLORS QA REVIEW

8.1 TIMELINESS

There is no recommended holding time specified in the method for soil and water samples analyzed by EPA Method 8082A due to the stability of PCBs in environmental samples. However, many programs and laboratories default to the holding time for SVOCs of 7 days to extraction for water samples, 14 days to extraction for soil samples, and 40 days to analyze after extraction for both matrices. All samples were analyzed within 1 to 3 days after collection.

8.2 LABORATORY QUALITY CONTROL SAMPLES

8.2.1 Quality Control Analysis Frequency

Method blanks and spike blanks/spike blank duplicates (or matrix spikes/matrix spike duplicates) were analyzed at a minimum frequency of 5 percent (or one per batch). These criteria were met for all delivery groups.

8.2.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

8.2.3 Spike Blanks/Spike Blank Duplicates and/or Matrix Spikes/Matrix Spike Duplicates

Recoveries and RPDs of all analytes were within the laboratory's QC limits for all delivery groups.

8.2.4 Surrogate Recoveries

The laboratory used one surrogate spike compound for EPA Method 8082A for soil and water samples. Surrogate recoveries were within the laboratory's QC limits for all delivery groups except as noted below:

- **SDG 1912-256:** The percent recovery of the surrogate decachlorobiphenyl was less than the lower control limit for water samples FMW-145-122619 and FMW-146-122619. Aroclors were not detected in the samples and all results are qualified as not detected and the reporting limits are estimates (UJ) as shown in Table 2.

9.0 METALS QA REVIEW

9.1 TIMELINESS

The recommended holding time for EPA Method 6010D or 6020B is 6 months for soil samples. The recommended holding time for EPA Method 7471B (mercury in soil) is 28 days. All samples were extracted and analyzed within holding times.

9.2 LABORATORY QUALITY CONTROL SAMPLES

9.2.1 Quality Control Analysis Frequency

Method blanks, matrix spikes/matrix spike duplicates, and laboratory duplicates were analyzed at a frequency of 5 percent (or one per batch). These criteria were met for all delivery groups.

9.2.2 Method Blanks

No target analytes were detected at or exceeding the reporting limits in the method blanks for all delivery groups.

9.2.3 Matrix Spikes/Matrix Spike Duplicates and Laboratory Duplicates

Recoveries and RPDs of all analytes were within the laboratory's QC limits for all delivery groups except as noted below:

- **SDG 1808-217:** The laboratory duplicate RPD for chromium exceeded the RPD control limit. The laboratory duplicate analysis was conducted on a non-project sample within the batch; the laboratory noted that the result may be due to sample soil material heterogeneity. The laboratory re-analyzed the sample with similar results. No action is needed as the duplicate analysis was not performed on a project sample.
- **SDG 1808-229:** The laboratory duplicate RPD for chromium exceeded the RPD control limit. The laboratory duplicate analysis was conducted on a non-project sample within the batch; the laboratory noted that the result may be due to sample soil material heterogeneity. The laboratory re-analyzed the sample with similar results. No action is needed as the duplicate analysis was not performed on a project sample.
- **SDG 2001-279:** The laboratory duplicate RPD for lead exceeded the RPD control limit. The laboratory duplicate analysis was conducted on a non-project sample within the batch; the laboratory noted that the result may be due to sample soil material heterogeneity. The

laboratory re-analyzed the sample with similar results. No action is needed as the duplicate analysis was not performed on a project sample.

- **SDG 2001-280:** The laboratory duplicate RPD for lead exceeded the RPD control limit. The laboratory duplicate analysis was conducted on a non-project sample within the batch; the laboratory noted that the result may be due to sample soil material heterogeneity. The laboratory re-analyzed the sample with similar results. No action is needed as the duplicate analysis was not performed on a project sample.

10.0 REFERENCES

U.S. Environmental Protection Agency (EPA). 2017a. National Functional Guidelines for Inorganic Superfund Methods Data Review. OLEM 9355.0-135, EPA-540-R-2017-001. January.

———. 2017b. National Functional Guidelines for Organic Superfund Methods Data Review. OLEM 9355.0-136, EPA-540-R-2017-002. January.

TABLES

DATA VALIDATION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Table 1
Overview of Soil Sample Analyses
Block 38
Seattle, Washington
Farallon PN: 397-019

Lab Sample Delivery Group	Matrix	Number of Samples	Analytical Method							
			NWTPH-Dx	NWTPH-Gx	NWTPH-HCID	EPA 8021B	EPA 8260C/D	EPA 8270D/E/SIM	EPA 8082A	EPA 6010D/6020B//7471B
1808-217	Soil	4	X	X		X	X	X		X
1808-229	Soil	8	X	X		X	X	X		X
1808-272	Soil	7	X	X		X	X	X		X
1808-271	Soil	3	X	X		X	X	X		X
1808-277	Soil	6	X	X		X		X		X
1808-292	Soil	6	X	X		X	X	X		X
1808-293	Soil	3	X	X		X		X		X
1808-374	Groundwater	4	X	X			X	X		
1808-375	Groundwater	2	X	X			X	X		
1812-267	Groundwater	7	X	X			X	X		
1901-097	Soil	1	X	X				X		
1901-158	Soil	2	X	X				X		
1901-216	Soil	1						X		
1903-242	Groundwater	6	X	X		X		X		
1912-093	Soil	1	X	X		X				
1912-141	Soil	1	X	X		X				
1912-207	Soil	4	X	X		X		X		
1912-230	Soil	10	X	X		X		X		
1912-231	Soil	18	X	X		X		X		
1912-240	Soil	1	X	X			X	X	X	X
1912-256	Groundwater	5	X	X		X	X	X	X	
2001-112	Soil	2	X							
2001-179	Soil	1	X		X					
2001-199	Soil	1		X			X	X	X	X
2001-279	Soil	1	X	X			X	X	X	X
2001-280	Soil	4	X				X	X		X
2001-348	Soil	4	X					X		
2001-349	Soil	1	X					X		X
2002-014	Soil	4	X					X		
2002-115	Soil	4	X					X		
2002-032	Soil	9	X	X				X		
2002-043	Soil	2	X	X	X		X	X	X	
2002-069	Soil	7	X			X		X		
2002-081	Soil	10	X					X		
2002-097	Soil	4	X							X
2002-150	Soil	3	X	X				X		
2002-163	Soil	10	X	X			X	X		
2002-174	Soil	1	X							
2002-199	Soil	3	X	X				X		
2002-208	Soil	2		X				X		
2002-215	Soil	1	X							
2002-223	Soil	14	X	X		X		X		
2002-240	Soil	11	X	X				X		
2002-241	Soil	3		X						

Table 1
Overview of Soil Sample Analyses
Block 38
Seattle, Washington
Farallon PN: 397-019

Lab Sample Delivery Group	Matrix	Number of Samples	Analytical Method							
			NWTPH-Dx	NWTPH-Gx	NWTPH-HCID	EPA 8021B	EPA 8260C/D	EPA 8270D/E/SIM	EPA 8082A	EPA 6010D/6020B//7471B
2002-263	Soil	6	X	X						
2002-275	Soil	15	X	X				X		
2002-293	Soil	9	X	X				X		
2002-303	Soil	9	X					X		
2003-002	Soil	2						X		
2004-206	Soil	1	X							
2004-218	Soil	1						X		
2005-017	Soil	5						X		
2005-214	Soil	1	X	X		X		X		
2006-023	Soil	1	X	X		X		X		
2006-045	Soil	4	X	X		X		X		

NOTES:

An "X" indicates one or more samples within the delivery group were analyzed by the method specified in that column.

EPA = U.S. Environmental Protection Agency

Table 2
Summary of Qualified Data
Block 38
Seattle, Washington
Farallon PN: 397-019

Sample Identification	SDG	Matrix	Method	Analyte	Qualifier	Reason
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	n-Nitrosodimethylamine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Pyridine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Phenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Aniline	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	bis(2-Chloroethyl)ether	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2-Chlorophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,3-Dichlorobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,4-Dichlorobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzyl alcohol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,2-Dichlorobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2-Methylphenol (o-Cresol)	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	bis(2-Chloroisopropyl)ether	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	(3+4)-Methylphenol (m,p-Cresol)	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	n-Nitroso-di-n-propylamine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Hexachloroethane	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Nitrobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Isophorone	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2-Nitrophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,4-Dimethylphenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	bis(2-Chloroethoxy)methane	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,4-Dichlorophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,2,4-Trichlorobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Naphthalene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4-Chloroaniline	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Hexachlorobutadiene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4-Chloro-3-methylphenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2-Methylnaphthalene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1-Methylnaphthalene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Hexachlorocyclopentadiene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,4,6-Trichlorophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,3-Dichloroaniline	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,4,5-Trichlorophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2-Chloronaphthalene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2-Nitroaniline	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,4-Dinitrobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Dimethylphthalate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,3-Dinitrobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,6-Dinitrotoluene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,2-Dinitrobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Acenaphthylene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	3-Nitroaniline	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,4-Dinitrophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Acenaphthene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4-Nitrophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,4-Dinitrotoluene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Dibenzofuran	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,3,5,6-Tetrachlorophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	2,3,4,6-Tetrachlorophenol	UJ	Sample analyzed outside of holding time

Table 2
Summary of Qualified Data
Block 38
Seattle, Washington
Farallon PN: 397-019

Sample Identification	SDG	Matrix	Method	Analyte	Qualifier	Reason
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Diethylphthalate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4-Chlorophenyl-phenylether	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4-Nitroaniline	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Fluorene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4,6-Dinitro-2-methylphenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	n-Nitrosodiphenylamine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	1,2-Diphenylhydrazine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	4-Bromophenyl-phenylether	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Hexachlorobenzene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Pentachlorophenol	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Phenanthrene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Anthracene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Carbazole	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Di-n-butylphthalate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Fluoranthene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzidine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Pyrene	J	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Butylbenzylphthalate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	bis-2-Ethylhexyladipate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	3,3'-Dichlorobenzidine	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzo[a]anthracene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Chrysene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	bis(2-Ethylhexyl)phthalate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Di-n-octylphthalate	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzo[b]fluoranthene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzo(j,k)fluoranthene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzo[a]pyrene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Indeno[1,2,3-cd]pyrene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Dibenz[a,h]anthracene	UJ	Sample analyzed outside of holding time
FB-06-10.0-082218	1808-272	Soil	EPA 8270D/SIM	Benzo[g,h,i]perylene	UJ	Sample analyzed outside of holding time
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	4-Chloro-3-methylphenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	2,4,6-Trichlorophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	2,4,5-Trichlorophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	2,4-Dinitrophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	4-Nitrophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	2,3,5,6-Tetrachlorophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	2,3,4,6-Tetrachlorophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	4,6-Dinitro-2-methylphenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW-133-20.0-082418	1808-293	Soil	EPA 8270D/SIM	Pentachlorophenol	UJ	Percent recovery of surrogate 2,4,6-tribromophenol was below the lower control limit
FMW134-122818	1812-267	Groundwater	EPA 8270D/SIM	Naphthalene	J	Parent sample and field duplicate RPD exceeds control limit
FMW134-122818	1812-267	Groundwater	EPA 8270D/SIM	2-Methylnaphthalene	J	Parent sample and field duplicate RPD exceeds control limit
FMW134-122818	1812-267	Groundwater	EPA 8270D/SIM	1-Methylnaphthalene	J	Parent sample and field duplicate RPD exceeds control limit
FMW134-122818	1812-267	Groundwater	EPA 8270D/SIM	Acenaphthene	J	Parent sample and field duplicate RPD exceeds control limit
FMW500-122818	1812-267	Groundwater	EPA 8270D/SIM	Naphthalene	J	Parent sample and field duplicate RPD exceeds control limit
FMW500-122818	1812-267	Groundwater	EPA 8270D/SIM	2-Methylnaphthalene	J	Parent sample and field duplicate RPD exceeds control limit
FMW500-122818	1812-267	Groundwater	EPA 8270D/SIM	1-Methylnaphthalene	J	Parent sample and field duplicate RPD exceeds control limit
FMW500-122818	1812-267	Groundwater	EPA 8270D/SIM	Acenaphthene	J	Parent sample and field duplicate RPD exceeds control limit

Table 2
Summary of Qualified Data
Block 38
Seattle, Washington
Farallon PN: 397-019

Sample Identification	SDG	Matrix	Method	Analyte	Qualifier	Reason
PH-13-3.0-011219	1901-097	Soil	NWTPH-Gx	Gasoline	UJ	VOA vials not provided for sample per Method 5035A; sample extracted from 4-ounce jar
PH-11A-4.0-011919	1901-158	Soil	NWTPH-Gx	Gasoline	UJ	VOA vials not provided for sample per Method 5035A; sample extracted from 4-ounce jar
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Benzo[a]anthracene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Chrysene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Benzo[b]fluoranthene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Benzo(j,k)fluoranthene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Benzo[a]pyrene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Indeno(1,2,3-c,d)pyrene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
PH-11A-4.0-011919	1901-158	Soil	EPA 8270D/SIM	Dibenz[a,h]anthracene	J-	Percent recovery of surrogate terphenyl-d14 was below the lower control limit
N3-20.0-121019	1912-093	Soil	NWTPH-Gx	Gasoline	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	EPA 8021B	Benzene	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	EPA 8021B	Toluene	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	EPA 8021B	Ethyl Benzene	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	EPA 8021B	m,p-Xylene	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	EPA 8021B	o-Xylene	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	NWTPH-Dx	Diesel Range Organics	UJ	Sample analyzed outside of holding time
N3-20.0-121019	1912-093	Soil	NWTPH-Dx	Oil Range Organics	UJ	Sample analyzed outside of holding time
FMW-146-122619	1912-256	Groundwater	EPA 8270E/SIM	Benzo[a]anthracene	J+	Percent recovery of surrogate pyrene-d10 exceeded the upper control limit
FMW-146-122619	1912-256	Groundwater	EPA 8270E/SIM	Chrysene	J+	Percent recovery of surrogate pyrene-d10 exceeded the upper control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1016	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1221	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1232	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1242	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1248	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1254	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-145-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1260	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1016	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1221	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1232	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1242	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1248	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1254	UJ	Percent recovery of surrogate DCB was below the lower control limit
FMW-146-122619	1912-256	Groundwater	EPA 8082A	Aroclor 1260	UJ	Percent recovery of surrogate DCB was below the lower control limit
UST-01-line-21.0	2001-349	Soil	EPA 8270E/SIM	2-Methylnaphthalene	J+	Percent recovery of surrogate 2-fluorobiphenyl exceeded the upper control limit
UST-01-line-21.0	2001-349	Soil	EPA 8270E/SIM	1-Methylnaphthalene	J+	Percent recovery of surrogate 2-fluorobiphenyl exceeded the upper control limit
H4-ESW-20.0	2002-032	Soil	NWTPH-Gx	Gasoline	UJ	Sample analyzed outside of holding time
H4-ESW2-20.0	2002-032	Soil	NWTPH-Gx	Gasoline	UJ	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Benzo[a]anthracene	J	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Chrysene	J	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Benzo[b]fluoranthene	J	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Benzo(j,k)fluoranthene	J	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Benzo[a]pyrene	J	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Indeno(1,2,3-c,d)pyrene	J	Sample analyzed outside of holding time
N2-B-20.0	2002-069	Soil	EPA 8270E/SIM	Dibenz[a,h]anthracene	J	Sample analyzed outside of holding time
I3-B-15.0	2002-223	Soil	NWTPH-Gx	Gasoline	UJ	Sample received outside of Method 5035A preservation holding time
N2-B-15.0	2002-223	Soil	NWTPH-Gx	Gasoline	UJ	Sample received outside of Method 5035A preservation holding time
N2-B-10.0	2002-223	Soil	NWTPH-Gx	Gasoline	UJ	Sample received outside of Method 5035A preservation holding time

Table 2
Summary of Qualified Data
Block 38
Seattle, Washington
Farallon PN: 397-019

Sample Identification	SDG	Matrix	Method	Analyte	Qualifier	Reason
I3-B-20.0	2002-223	Soil	NWTPH-Gx	Gasoline	UJ	Sample received outside of Method 5035A preservation holding time
I3-B-20.0	2002-223	Soil	EPA 8021B	Benzene	UJ	Sample received outside of Method 5035A preservation holding time
I3-B-20.0	2002-223	Soil	EPA 8021B	Toluene	UJ	Sample received outside of Method 5035A preservation holding time
I3-B-20.0	2002-223	Soil	EPA 8021B	Ethyl Benzene	UJ	Sample received outside of Method 5035A preservation holding time
I3-B-20.0	2002-223	Soil	EPA 8021B	m,p-Xylene	UJ	Sample received outside of Method 5035A preservation holding time
I3-B-20.0	2002-223	Soil	EPA 8021B	o-Xylene	UJ	Sample received outside of Method 5035A preservation holding time

NOTES:

DCB = decachlorobiphenyl

EPA = U.S. Environmental Protection Agency

J = result is an estimate

J+ = result is an estimate with a high bias

J- = result is an estimate with a low bias

RPD = relative percent difference

SDG = sample delivery group

UJ = analyte not detected exceeding the laboratory reporting limit and reporting limit is an estimate

Table 3
FMW-134 Sample and Field Duplicate Precision Summary
Block 38
Seattle, Washington
Farallon PN: 397-019

Analytical Method	Analyte	Unit	Original Sample FMW-134 FMW134-122818 12/28/2018			Duplicate Sample FMW-134 FMW500-122818 12/28/2018			RPD (percent)	Absolute Difference when Results are less than 5x PQL	RPD Criteria Met
			Result	Detect	PQL	Result	Detect	PQL			
NWTPH-Dx	Diesel-Range Organics	mg/l	0.56		0.26	0.68		0.26		0.12	Yes
NWTPH-Dx	Oil-Range Organics	mg/l	0.41	U	0.41	0.49		0.41		0.08	Yes
NWTPH-GX	Gasoline-Range Organics	µg/l	100	U	100	100	U	100			ND
EPA 8260C	1,1,1,2-Tetrachloroethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,1,1-Trichloroethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,1,2,2-Tetrachloroethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,1,2-Trichloroethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,1-Dichloroethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,1-Dichloroethene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,1-Dichloropropene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2,3-Trichlorobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2,3-Trichloropropane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2,4-Trichlorobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2-Dibromo-3-chloropropane	µg/l	1	U	1	1	U	1			ND
EPA 8260C	1,2-Dibromoethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2-Dichlorobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2-Dichloroethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,2-Dichloropropane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,3-Dichlorobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,3-Dichloropropane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	1,4-Dichlorobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	2,2-Dichloropropane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	2-Chloroethyl Vinyl Ether	µg/l	1	U	1	1	U	1			ND
EPA 8260C	2-Chlorotoluene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	4-Chlorotoluene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Benzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Bromobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Bromochloromethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Bromodichloromethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Bromoform	µg/l	1	U	1	1	U	1			ND
EPA 8260C	Bromomethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Carbon Tetrachloride	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Chlorobenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND

Table 3
FMW-134 Sample and Field Duplicate Precision Summary
Block 38
Seattle, Washington
Farallon PN: 397-019

Analytical Method	Analyte	Unit	Original Sample FMW-134 FMW134-122818 12/28/2018			Duplicate Sample FMW-134 FMW500-122818 12/28/2018			RPD (percent)	Absolute Difference when Results are less than 5x PQL	RPD Criteria Met
			Result	Detect	PQL	Result	Detect	PQL			
EPA 8260C	Chloroethane	µg/l	1	U	1	1	U	1			ND
EPA 8260C	Chloroform	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Chloromethane	µg/l	1	U	1	1	U	1			ND
EPA 8260C	cis-1,2-Dichloroethene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	cis-1,3-Dichloropropene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Dibromochloromethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Dibromomethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Dichlorodifluoromethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Ethylbenzene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Hexachlorobutadiene	µg/l	1	U	1	1	U	1			ND
EPA 8260C	Iodomethane	µg/l	1	U	1	1	U	1			ND
EPA 8260C	m,p-Xylene	µg/l	0.4	U	0.4	0.4	U	0.4			ND
EPA 8260C	Methylene Chloride	µg/l	1	U	1	1	U	1			ND
EPA 8260C	o-Xylene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Tetrachloroethene (PCE)	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Toluene	µg/l	1	U	1	1	U	1			ND
EPA 8260C	trans-1,2-Dichloroethene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	trans-1,3-Dichloropropene	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Trichloroethene (TCE)	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Trichlorofluoromethane	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8260C	Vinyl Chloride	µg/l	0.2	U	0.2	0.2	U	0.2			ND
EPA 8270D/SIM	1-Methylnaphthalene	µg/l	0.67		0.11	1.7		0.1	86.9		No
EPA 8270D/SIM	2-Methylnaphthalene	µg/l	0.77		0.11	2.3		0.1	99.7		No
EPA 8270D/SIM	Acenaphthene	µg/l	0.71		0.11	1.6		0.1	77.1		No
EPA 8270D/SIM	Acenaphthylene	µg/l	0.11	U	0.11	0.1	U	0.1			ND
EPA 8270D/SIM	Anthracene	µg/l	0.11	U	0.11	0.1	U	0.1			ND
EPA 8270D/SIM	Benzo(a)Anthracene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Benzo(a)Pyrene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Benzo(b)Fluoranthene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Benzo(g,h,i)Perylene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Benzo(j,k)Fluoranthene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Chrysene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Dibenzo(a,h)Anthracene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Fluoranthene	µg/l	0.11	U	0.11	0.1	U	0.1			ND

Table 3
FMW-134 Sample and Field Duplicate Precision Summary
Block 38
Seattle, Washington
Farallon PN: 397-019

Analytical Method	Analyte	Unit	Original Sample FMW-134 FMW134-122818 12/28/2018			Duplicate Sample FMW-134 FMW500-122818 12/28/2018			RPD (percent)	Absolute Difference when Results are less than 5x PQL	RPD Criteria Met
			Result	Detect	PQL	Result	Detect	PQL			
EPA 8270D/SIM	Fluorene	µg/l	0.11	U	0.11	0.15		0.1		0.04	Yes
EPA 8270D/SIM	Indeno(1,2,3-cd)Pyrene	µg/l	0.011	U	0.011	0.01	U	0.01			ND
EPA 8270D/SIM	Naphthalene	µg/l	23		1.1	62		2.1	91.8		No
EPA 8270D/SIM	Phenanthrene	µg/l	0.11	U	0.11	0.1	U	0.1			ND
EPA 8270D/SIM	Pyrene	µg/l	0.11	U	0.11	0.1	U	0.1			ND

NOTES:

mg/l = milligrams per liter

µg/l = micrograms per liter

ND = analyte not detected in both original sample and field duplicate

PQL = practical quantitation limit

RPD = relative percent difference

U = analyte not detected at or exceeding the laboratory practical quantitation limit

APPENDIX G
UST01 AND UST 02 DECOMMISSIONING RECORDS

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Construction Group International, LLC
19407 144th Avenue NE, Building D
Woodinville, WA 98072
*(425)487-2618 * (425)487-2619*

Environmental * Demolition * Waterproofing * Coatings

Washington License #CONSTIGI953NA

Billing Summary

Customer:	Vulcan	**Date:**	3/3/2020
Attn:	Raymond Burdick	**Project Name:**	Block 38 Development UST Removal, Seattle, WA
Address:	505 -5th Ave S, Suite 900, Seattle, Wa 98104	**Job #:**	U20065
Phone:	206-342-2451	**P.O.#**	10120-00044
Fax:	206-342-3000	**Other #:**	

We hereby submit the following itemized cost breakdown and description of proposed work:

Below are the itemized T&M costs for the Underground Storage Tank(s) remediation & removal on the above-mentioned project.

Removed (2) 1200-gal & 2500-gal bunker oil tanks, approximately10' in depth. General Contractor on site to provide excavator for tank removal. Locates, soil sampling, and reporting to regulatory agencies (DOE).

Item or Function	Qty	Rate	Labor	Material	Equipment	Disposal	Total
Mobilization	2	500	1,000.00				$1,000.00
UST Labor - Licensed Decommissioner	50	125	6,250.00				$6,250.00
Project Manager	2	95	190.00				$190.00
Excavator - Provide by GC on site.							
Small tools (fire extinguisher, no smoking signs, visqueen, chop saw, etc)	2	600		1,200.00			$1,200.00
Tank Pump and Rinse, Vac Truck & Operator	10	140			1,400.00		$1,400.00
Wash Water Disposal	3600	0.65				2,340.00	$2,340.00
Seattle Fire Dept Permit	2	414		828.00			$828.00
Marine Chemist, Gas Tank Inert	2	1545	3,090.00				$3,090.00
UST Haul Away	2	250	1,250.00		500.00		$1,750.00
Tank Destruction	2	695				1,390.00	$1,390.00
TOTALS							***$19,438.00***

Total Cost	***$19,438.00***
Overhead/Profit Included	***$0.00***
Sales Tax 10.1%	***$1,963.24***
TOTAL AMOUNT	***$21,401.24***

***Note: This Quotation Response is valid for thirty (30) days. Payment terms are net thirty (30) days from date of invoice, with interest accruing at 1.5% per month on all outstanding balances. All costs associated with debt collection shall be born by*

Mark A. Marcell

Mark A. Marcell - Construction Group International, LLC

Mark A. Marcell - President

Printed Name and Title

Authorized Signature

Printed Name and Title

Date

George D. Blair - Northwest Marine Chemist, Inc.
P.O. Box 7084, Tacoma, WA 98417
Office: 253-752-0149 Fax:
Email: gbcmc637@gmail.com

MARINE CHEMIST CERTIFICATE

Serial 637-01078

ECI	GLY/CGI	Jan 27, 2020
Survey Requested by	Vessel Owner Agent	Date
Tank Farm	Underground Storage Tank	500 N. Westlake
Vessel	Type of Vessel	Specific Location of Vessel
HFO as Fuel	O_2, LEL, Visual, VOC	10:46
Last Three 3 Loadings	Tests Performed	Time Survey Completed

Inspected Spaces:
Group 1. 1-1800 Gal. UST

Safety Designations:
ATMOSPHERE SAFE FOR WORKERS
SAFE FOR LIMITED HOT WORK
LIMITATIONS:
Specific Location: *At job site.*
Hot Work Type: *This tank has been pressure washed free of any flammable residues, and is safe for excavation and transportation. Tests of residues show no ignition when exposed to propane torch.*

Test Results	**% O_2**	**% LEL**	**VOC**
Inspected spaces group 1	20.8%	<1%	< 1 ppm

Limits of Detection
0.1 ppm VOC

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided; spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915; or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person or the authority having jurisdiction as applicable in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this certificate.

STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFP 306, Subsections 4.3.1 through 4.3.6)

ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere shall be at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.

NOT SAFE FOR WORKERS: In the compartment or space so designated, entry shall not be permitted.

ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are as specified.

SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not be capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire; or they are inerted. Ship's fuel tanks, tube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.

SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable; and the nature or type of hot work shall be limited or restricted.

NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Authorized Representative	ECI	Jan 27, 2020	Signed Marine Chemist	637
	Company	Date		CMC No.

eci Environmental Services
Practical Environmental Compliance Solutions
Offices In: Anchorage | Tacoma | Portland

January 27, 2020
ECI Project No.: 0520-26

Underground Storage Tank Decommissioning Certification

This is a statement of Underground Storage Tank Decommissioning provided by EcoCon, Inc. (ECI). ECI states this decommissioning has occurred under the supervision of an ICC Certified UST Decommissioner following the local and state rules and regulations as defined by the Uniform Fire Code (UFC) and Washington Administrative Code (WAC). Following Northwest Marine Chemist and Seattle Fire Department certification, the UST was excavated and transported off site to be cut up then disposed at a local metal recycling company.

Project Client:	Construction Group International
Project Name:	Block 38 - Bunker Oil UST #1
Project Address:	500 Westlake Ave. N., Seattle, WA
Type of Decommissioning:	Excavation and removal from sub-surface
UST Installation Date:	Unknown (pre 1980)
UST Decommissioning Date:	1/27/2020
Permit Issuance Date:	1/27/2020
UST #:	Tank #1
UST(s) Dimensions:	4.0 x 12 feet (Approximate) – 1 UST
UST(s) Total Gallons:	1200 Gallons (Approximate)
UST(s) Construction:	Steel – Single Wall Construction
Certified UST Decommissioner:	**Brad Reilly**
Certification Number:	**8289423 – Exp: 2/14/2020**

Brad N. Reilly

January 28, 2020
Date

Your Seattle Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 Commercial Tank Removal/Decommissioning

Permit Fee:

Date Issued: 1/23/2020

TO BE COMPLETED BY PERMIT APPLICANT **Tank(s) must be removed from site on the same day as permit is issued!**

BUSINESS NAME: ECI Environmental

MAILING ADDRESS: P.O. Box 153 SUITE:

CITY: Fox Island STATE: WA ZIP: 98333

JOBSITE ADDRESS: 500 Westlake Avenue

CONTACT PERSON: Brad Reilly PHONE NUMBER: (206) 779-0050

Number of Tank(s): 1 Tank Size(s): 1800 gallon ☐ Aboveground tank

Product(s) Previously Contained: Bunker Oil ■ Underground tank

■ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ■ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 p.m., or mailed to:

Seattle Fire Department
Fire Marshal's Office – Permits
220 Third Ave S, 2nd Floor
Seattle, WA 98104-2608

To pay with a Visa or Master Card, email this completed application to us,
THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT.
Tel: (206) 386-1450
E-mail: permits@seattle.gov

Call 206-386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.
TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, and federal, state UST Decommisioner **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED.**

I understand the conditions of this permit and will ensure all tank removal/decommissioning operations are conducted accordingly.
I acknowledge that I received an inspection by a Seattle Fire Department inspector today.

Brad Reilly
Print Name

Signature

UST Decommissioner
Title

Special permit conditions: ***Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)***

FMO USE:
Check No.: _____
Receipt No.: _____
Application ID#: _____

APPROVED BY:
Inspector: _____ SFD ID# _____
Name of Marine Chemist _____ Certificate # _____
Date: _____

(01/19)

COMMERCIAL TANK REMOVAL/DECOMMISSIONING PERMIT CONDITIONS

1. Two (2) portable fire extinguishers each having a minimum rating of 40 BC shall be on site within 50 feet of the operation. Fire extinguishers shall be inspected, approved and certified annually.

2. Rope or ribbon barricades located at least 10 feet from the tank shall surround every outdoor storage tank removal or decommissioning operation or the operation shall be enclosed in a fenced yard.

3. "No Smoking" signs shall be posted in readily visible locations.

4. No hot work is allowed on a tank system prior to issuance of this permit and the tank is certified "Safe for Hot Work" by a Certified Marine Chemist. Hot work means any activities involving riveting, welding, burning, brazing, soldering, heating, chopping, grinding, ripping, drilling, cutting with a chop saw or "Sawzall", abrasive blasting, use of powder-actuated tools or similar spark-producing operations, crushing or mechanically shearing to facilitate opening for cleaning, disposal, scrapping for recycling purposes.

5. A separate temporary Seattle Fire Department permit (Code 4913) or a validation number assigned in conjunction with an annual hot work permit (Code 4911 or 4912) is required prior to any hot work operations.

6. Permits may cover multiple tanks located at the same address. If additional tanks are to be removed or abandoned at later dates, separate permits shall be obtained. Each address location requires a separate permit application regardless of whether multiple address locations are physically next to one another.

7. Additional fees will be charged if inspectors are required to work other than normal business hours. (Normal business hours are Monday through Friday, 8:00 a.m. to 4:30 p.m.)

8. No excavation of an underground tank is permitted prior to inspection by the Seattle Fire Marshal's Office.
   Exception: Removal of the top layer of asphalt or concrete only with no removal of dirt, pea gravel or soil over the underground storage tank. Further excavation may be allowed by a Seattle Fire Department Special Hazards Unit Inspector prior to the initial inspection depending on conditions and if the tank has been inerted by a Marine Chemist who is present on site. The name of the inspector and the time permission was given shall be made available at time of inspection.

9. Prior to inspection, to ensure tanks and connected piping are completely free of all flammable or combustible liquids, a receipt or certificate must be on site indicating the tanks have been pumped and rinsed by an approved company. Product and rinse water must be disposed of in an approved manner.

10. For tanks being decommissioned in place that previously contained Class I liquids, a Certified Marine Chemist certificate must be issued and available on site for inspection certifying that the tank has been properly inerted prior to filling.

11. No tank shall be filled prior to an inspection by the Seattle Fire Marshal's Office.

12. Tanks being decommissioned in place must be filled with a lean concrete mixture. Filling with foam is prohibited.

13. A Marine Chemist's certificate verifying the tank has been properly inerted or is otherwise certified "Safe for Hot Work" shall be issued and available on site for inspection for each underground and aboveground tank being removed regardless of the product previously contained.

14. If tanks are being removed, the tanks' atmosphere must be inert using one of the following approved methods:
    - Dry ice (pellets or chunks of solid CO_2). Minimum 40 lbs per 1000 gallons of tank capacity is recommended.
    - Compressed CO_2 gas in cylinders (Note: This method may only be performed by a Certified Marine Chemist).
    - Purging with air (gas-freeing) using Venturi tube apparatus, with proper bonding and grounding and after the tank has been pumped and rinsed by an approved company.

15. A maximum reading of less than 6% of oxygen must be obtained prior to the removal of the tanks if CO_2 or another inert gas, as approved by the Marine Chemist, is used to inert the tank or, a reading of 0% LEL must be obtained prior to removal of the tank if the air-purging (Venturi air moving devices) method is used.

16. All local, state and federal regulations for confined space entry shall be complied with prior to entering an underground storage tank.

17. Tanks with baffles to prevent movement of liquid must be certified gas-freed or inerted by a Certified Marine Chemist or a Petroleum Industry Safety Engineer regularly engaged in that business prior to removal.

18. Tanks being removed must be removed from the site and relocated to a remote, approved facility on the same day that the permit is issued.

19. During the hot work operations, digging, excavating, hauling or transport of petroleum storage tanks that have not been cleaned and gas-freed, tanks must be inerted to less than 6% oxygen. All openings are to be cap closed and secured except for one 1/8" hole drilled through a cap. These tanks are to be sprayed painted with "INERTED, DO NOT ENTER" or "INERTED WITH CO_2, NOT SAFE FOR WORKERS".

BILL OF LADING
PRODUCT TRANSPORT MANIFEST

Nº 31005

MARINE VACUUM SERVICE, INC.
24 HOUR EMERGENCY PHONE NUMBER (206) 762-0240
FAX NUMBER 206-763-8084
TRUCK NUMBER _____ DATE 1/27/20

TO
DESTINATION
NAME Marine Vacuum Service, Inc.
STREET 1516 South Graham Street
CITY/STATE Seattle, WA 98108

FROM
SHIPPER
NAME CGI Construction
STREET 500 Westlake Ave N
CITY/STATE Seattle, WA

QUANTITY	PROPER SHIPPING NAME	UN (PLACARD) NUMBER
1-1500	UST for disposal	

RECEIVER _____ SLUDGE DATE 1/27/20 SHIPPER _____ DATE 1/27/2020

NOTE: Cleaned 1/27

Customer warrants that the waste petroleum products being transferred by the above collector do not contain any contaminates including without limitations, pesticides, chlorinated solvents at concentrations greater than 1000 PPM, any detectable levels of PCBs, or any other material classified as dangerous or hazardous waste by 40 CFR Part 261, Subpart C and D (implementing the Federal Resource Conservation and Recover Act), or by any equivalent state dangerous or hazardous substance classification programs. Should laboratory tests find this waste not in compliance with 40 CFR Part 261, customer (generator) agrees to pay for all disposal costs incurred.

George D. Blair - Northwest Marine Chemist, Inc.
P.O. Box 7084, Tacoma, WA 98417
Office: 253-752-0149 Fax:
Email: gbcmc637@gmail.com

MARINE CHEMIST CERTIFICATE

Serial 637-01081

ECI	GLY/CGI	Feb 7, 2020
Survey Requested by	Vessel Owner Agent	Date
Tank Farm	Underground Storage Tank	500 N. Westlake
Vessel	Type of Vessel	Specific Location of Vessel
HFO as Fuel	O_2, LEL, Visual, VOC	12:50
Last Three 3 Loadings	Tests Performed	Time Survey Completed

Inspected Spaces:
Group 1. 12-2,500 Gal. UST

Safety Designations:
ATMOSPHERE SAFE FOR WORKERS
SAFE FOR LIMITED HOT WORK
LIMITATIONS:
Specific Location: *At job site.*
Hot Work Type: *This tank has been pressure washed free of any flammable residues, and is safe for excavation and cleaning in place. Tests of residues show no propagated flame when exposed to propane torch. Sparks will not ignite residues.*

Instructions
Maintain firewatch with charged extinguisher at ready during excavation operations.

Test Results	% O_2	% LEL	VOC
Inspected spaces group 1	20.8%	<1%	10 ppm

Limits of Detection
0.1 ppm VOC

In the event of physical or atmospheric changes affecting the STANDARD SAFETY DESIGNATIONS assigned to any of the above spaces, this certificate is voided; spaces not listed on the Certificate are not to be entered unless authorized on another Certificate and/or maintained in accordance with OSHA 29 CFR 1915; or if in any doubt, immediately stop all work and contact the undersigned Marine Chemist. Unless otherwise stated on the Certificate, all spaces and affected adjacent spaces are to be reinspected daily or more often as necessary by the competent person or the authority having jurisdiction as applicable in support of work prior to entry or recommencement of work.

QUALIFICATIONS: Transfer of ballast, cargo, fuel or manipulation of valves or closure equipment tending to alter conditions in pipelines, tanks, or compartments subject to gas accumulation, unless specifically approved on this Certificate, requires inspection and a new Certificate for spaces so affected. All lines, vents, heating coils, valves, and similar enclosed appurtenances shall be considered "not safe" unless otherwise specifically designated. Movement of the vessel from its specific location voids the Certificate unless shifting of the vessel within the facility has been specifically authorized on this certificate.
STANDARD SAFETY DESIGNATIONS: (partial list, paraphrased from NFP 306, Subsections 4.3.1 through 4.3.6)
ATMOSPHERE SAFE FOR WORKERS: In the compartment or space so designated (a) the oxygen content of the atmosphere shall be at least 19.5 percent and not greater than 22 percent by volume; (b) the concentration of flammable materials is below 10 percent of the lower explosive limit; (c) any toxic materials in the atmosphere associated with cargo, fuel, tank coatings, inerting mediums, or fumigants are within permissible concentrations at the time of the inspection.
NOT SAFE FOR WORKERS: In the compartment or space so designated, entry shall not be permitted.
ENTER WITH RESTRICTIONS: In the compartment or space so designated, entry for work is permitted only if conditions of proper protective equipment, or clothing, or time, or all of the aforementioned, as appropriate, are specified.
SAFE FOR HOT WORK: In the compartment or space so designated (a) the oxygen content of the atmosphere is not greater than 22 percent by volume; (b) the concentration of flammable materials in the atmosphere is less than 10 percent of the lower explosive limit; (c) the residues, scale, or preservative coatings are cleaned sufficiently to prevent the spread of fire and are not be capable of producing a higher concentration than permitted by (a) or (b); (d) all adjacent spaces, containing or having contained flammable or combustible materials shall be sufficiently cleaned of residues, scale, or preservative coatings to prevent the spread of fire; or they are inerted. Ship's fuel tanks, lube tanks, or engine room or fire room bilges, or other machinery spaces, are treated in accordance with the Marine Chemist's requirements.
SAFE FOR LIMITED HOT WORK: In the compartment or space so designated (a) portions of the space meet the requirements Safe for Hot Work and Partial Cleaning, as applicable, or (b) the space is inerted, adjacent spaces meet the requirements for Safe for Hot Work, and hot work is restricted to specific locations; (c) portions of the space shall meet the requirements for Safe for Hot Work, as applicable; and the nature or type of hot work shall be limited or restricted.
NOT SAFE FOR HOT WORK: In the compartment or space so designated, hot is not permitted.

CHEMISTS ENDORSEMENT. This is to certify that I have personally determined that all spaces in the foregoing list are in accordance with NFPA 306 Control of Gas Hazards on Vessels and have found the condition of each to be in accordance with its assigned designation.

"The undersigned acknowledges receipt of this Certificate under NFPA 306 and understands conditions and limitations under which it was issued, and the requirements for maintaining its validity."

This Certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

Authorized Representative	Company	Date	Signed Marine Chemist	CMC No.
	ECI	Feb 7, 2020		637

eci Environmental Services
Practical Environmental Compliance Solutions
Offices In: Anchorage | Tacoma | Portland

February 10, 2020
ECI Project No.: 0520-26-02

Underground Storage Tank Decommissioning Certification

This is a statement of Underground Storage Tank Decommissioning provided by EcoCon, Inc. (ECI). ECI states this decommissioning has occurred under the supervision of an ICC Certified UST Decommissioner following the local and state rules and regulations as defined by the Uniform Fire Code (UFC) and Washington Administrative Code (WAC). Following Northwest Marine Chemist and Seattle Fire Department certification, the UST was excavated and transported off site to be cut up then disposed at a local metal recycling company.

Project Client:	Construction Group International
Project Name:	Block 38 - Bunker Oil UST #2
Project Address:	500 Westlake Ave. N., Seattle, WA
Type of Decommissioning:	Excavation and removal from sub-surface
UST Installation Date:	Unknown (pre 1980)
UST Decommissioning Date:	2/07/2020
Permit Issuance Date:	2/07/2020
UST #:	Tank #1
UST(s) Dimensions:	5.0 x 16 feet (Approximate) – 1 UST
UST(s) Total Gallons:	2500 Gallons (Approximate)
UST(s) Construction:	Steel – Single Wall Construction
Certified UST Decommissioner:	**Brad Reilly**
Certification Number:	**8289423 – Exp: 2/14/2020**

Brad N. Reilly

February 10, 2020
Date

ECI | Environmental Services
Phone: (253) 921-7059 | Fax: (253) 369-6228 | brad@alleci.com

Your
Seattle
Fire Department

APPLICATION FOR TEMPORARY PERMIT

Code 7908 Commercial Tank Removal/Decommissioning

Permit Fee:

Date Issued: 02/06/2020

TO BE COMPLETED BY PERMIT APPLICANT

Tank(s) must be removed from site on the same day as permit is issued!

BUSINESS NAME: ECI Environmental

MAILING ADDRESS: P.O. Box 153 SUITE:

CITY: Fox Island STATE: WA ZIP: 98333

JOBSITE ADDRESS: 500 Westlake Avenue

CONTACT PERSON: Brad Reilly PHONE NUMBER: (206) 779-0050

Number of Tank(s): 1 Tank Size(s): 2200 ☐ Aboveground tank

Product(s) Previously Contained: Bunker Oil ■ Underground tank

■ Removal (Marine Chemist inspection and certificate required for all tanks regardless of size or contents)

☐ Abandonment-in-Place (Marine Chemist certificate required for tanks previously containing Class I flammable liquids and/or unknowns)

Hot work being conducted: ■ No ☐ Yes (If yes, a separate hot work permit is required)

Permit applications may be submitted in person weekdays from 8:00 a.m. to 4:30 p.m., or mailed to:

Seattle Fire Department
Fire Marshal's Office – Permits
220 Third Ave S, 2nd Floor
Seattle, WA 98104-2608

To pay with a Visa or Master Card, email this completed application to us,
THEN CALL US TO CONFIRM RECEIPT AND MAKE PAYMENT.
Tel: (206) 386-1450
E-mail: permits@seattle.gov

Call 206-386-1450, at least 24 hours prior to needed inspection time to arrange for an appointment.
TANKS MAY BE REMOVED/DECOMMISSIONED ONLY AFTER FIRE DEPARTMENT INSPECTION
NO HOT WORK IS ALLOWED ON A TANK SYSTEM PRIOR TO ISSUANCE OF THIS FIRE DEPARTMENT PERMIT!

Permission is hereby granted to remove or decommission the tank(s) identified in this permit in accordance with the attached conditions, all noted special conditions, and all applicable provisions of the Seattle Fire Code, and federal, state, and local regulations. **THIS PERMIT IS NULL AND VOID IF PERMIT CONDITIONS ARE NOT ATTACHED.**

I understand the conditions of this permit and will ensure all tank removal/decommissioning operations are conducted accordingly. I acknowledge that I received an inspection by a Seattle Fire Department inspector today.

Brad Reilly (Print Name) | (Signature) | UST Decommissioner (Title)

Special permit conditions: ***Tank removal/decommissioning must be performed, or directly supervised, by an ICC certified individual (WAC 173-360-600)***

FMO USE:

Check No.: _____
Receipt No.: _____
Application ID#: _____

APPROVED BY:

Inspector: _____ SFD ID# _____
Name of Marine Chemist _____ Certificate # _____
Date: _____

(01/19)

COMMERCIAL TANK REMOVAL/DECOMMISSIONING PERMIT CONDITIONS

1. Two (2) portable fire extinguishers each having a minimum rating of 40 BC shall be on site within 50 feet of the operation. Fire extinguishers shall be inspected, approved and certified annually.

2. Rope or ribbon barricades located at least 10 feet from the tank shall surround every outdoor storage tank removal or decommissioning operation or the operation shall be enclosed in a fenced yard.

3. "No Smoking" signs shall be posted in readily visible locations.

4. No hot work is allowed on a tank system prior to issuance of this permit and the tank is certified "Safe for Hot Work" by a Certified Marine Chemist. Hot work means any activities involving riveting, welding, burning, brazing, soldering, heating, chopping, grinding, ripping, drilling, cutting with a chop saw or "Sawzall", abrasive blasting, use of powder-actuated tools or similar spark-producing operations, crushing or mechanically shearing to facilitate opening for cleaning, disposal, scrapping for recycling purposes.

5. A separate temporary Seattle Fire Department permit (Code 4913) or a validation number assigned in conjunction with an annual hot work permit (Code 4911 or 4912) is required prior to any hot work operations.

6. Permits may cover multiple tanks located at the same address. If additional tanks are to be removed or abandoned at later dates, separate permits shall be obtained. Each address location requires a separate permit application regardless of whether multiple address locations are physically next to one another.

7. Additional fees will be charged if inspectors are required to work other than normal business hours. (Normal business hours are Monday through Friday, 8:00 a.m. to 4:30 p.m.)

8. No excavation of an underground tank is permitted prior to inspection by the Seattle Fire Marshal's Office.
   Exception: Removal of the top layer of asphalt or concrete only with no removal of dirt, pea gravel or soil over the underground storage tank. Further excavation may be allowed by a Seattle Fire Department Special Hazards Unit Inspector prior to the initial inspection depending on conditions and if the tank has been inerted by a Marine Chemist who is present on site. The name of the inspector and the time permission was given shall be made available at time of inspection.

9. Prior to inspection, to ensure tanks and connected piping are completely free of all flammable or combustible liquids, a receipt or certificate must be on site indicating the tanks have been pumped and rinsed by an approved company. Product and rinse water must be disposed of in an approved manner.

10. For tanks being decommissioned in place that previously contained Class I liquids, a Certified Marine Chemist certificate must be issued and available on site for inspection certifying that the tank has been properly inerted prior to filling.

11. No tank shall be filled prior to an inspection by the Seattle Fire Marshal's Office.

12. Tanks being decommissioned in place must be filled with a lean concrete mixture. Filling with foam is prohibited.

13. A Marine Chemist's certificate verifying the tank has been properly inerted or is otherwise certified "Safe for Hot Work" shall be issued and available on site for inspection for each underground and aboveground tank being removed regardless of the product previously contained.

14. If tanks are being removed, the tanks' atmosphere must be inert using one of the following approved methods:
    - Dry ice (pellets or chunks of solid CO_2). Minimum 40 lbs per 1000 gallons of tank capacity is recommended.
    - Compressed CO_2 gas in cylinders (Note: This method may only be performed by a Certified Marine Chemist).
    - Purging with air (gas-freeing) using Venturi tube apparatus, with proper bonding and grounding and after the tank has been pumped and rinsed by an approved company.

15. A maximum reading of less than 6% of oxygen must be obtained prior to the removal of the tanks if CO_2 or another inert gas, as approved by the Marine Chemist, is used to inert the tank or, a reading of 0% LEL must be obtained prior to removal of the tank if the air-purging (Venturi air moving devices) method is used.

16. All local, state and federal regulations for confined space entry shall be complied with prior to entering an underground storage tank.

17. Tanks with baffles to prevent movement of liquid must be certified gas-freed or inerted by a Certified Marine Chemist or a Petroleum Industry Safety Engineer regularly engaged in that business prior to removal.

18. Tanks being removed must be removed from the site and relocated to a remote, approved facility on the same day that the permit is issued.

19. During the hot work operations, digging, excavating, hauling or transport of petroleum storage tanks that have not been cleaned and gas-freed, tanks must be inerted to less than 6% oxygen. All openings are to be cap closed and secured except for one 1/8" hole drilled through a cap. These tanks are to be sprayed painted with "INERTED, DO NOT ENTER" or "INERTED WITH CO_2, NOT SAFE FOR WORKERS".

BILL OF LADING
PRODUCT TRANSPORT MANIFEST

N° 38928

MARINE VACUUM SERVICE, INC.
24 HOUR EMERGENCY PHONE NUMBER (206) 762-0240
FAX NUMBER 206-763-8084
TRUCK NUMBER _____ DATE 2-7-20

TO
DESTINATION
NAME Marine Vacuum Service, Inc
STREET 1516 South Graham Street
CITY/STATE Seattle, WA 98108

FROM
SHIPPER
NAME CGI Construction
STREET 500 westlake Ave. N
CITY/STATE Seattle WA

QUANTITY	PROPER SHIPPING NAME	UN (PLACARD) NUMBER
1 UST.	1800 Gal Tank (Empty)	
	SLUDGE	

RECEIVER DR. Roy
DATE 2-7-20
SHIPPER X
DATE

NOTE: * Drop off 1 UST Tank for Disposal.

Customer warrants that the waste petroleum products being transferred by the above collector do not contain any contaminates including without limitations, pesticides, chlorinated solvents at concentrations greater than 1000 PPM, any detectable levels of PCBs, or any other material classified as dangerous or hazardous waste by 40 CFR Part 261, Subpart C and D (implementing the Federal Resource Conservation and Recover Act), or by any equivalent state dangerous or hazardous substance classification programs. Should laboratory tests find this waste not in compliance with 40 CFR Part 261, customer (generator) agrees to pay for all disposal costs incurred.

APPENDIX H
VAPOR BARRIER SPECIFICATIONS

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

DRAGO® WRAP VAPOR INTRUSION BARRIER
SUMMARY OF PERMEATION AND ATTENUATION TESTING

BACKGROUND

From October 2015 through August 2018, Drago Wrap Vapor Intrusion Barrier was subjected to a series of diffusion and sorption tests to obtain the film's diffusion, partitioning, and permeation characteristics. This testing was designed and overseen by an expert in the permeation of volatile organic compounds (VOCs) at a prominent university. The results of this testing, combined with further modeling and analysis, have been used to empirically determine the attenuation efficacy of Drago Wrap against various hydrocarbons and chlorinated solvents. The purpose of this document is to briefly discuss the theory behind diffusive vapor intrusion (VI); summarize and explain the robust testing protocol utilized; and relay the results of the testing and analysis.

CHEMICALS TESTED

Drago Wrap has been tested with regard to permeation of the following chemicals: Trichloroethylene (TCE); Perchloroethylene (PCE); the BTEX family: Benzene, Toluene, Ethylbenzene, Xylene; Dichloromethane; 1,4 Dichlorobenzene; Methyl tert-butyl ether (MTBE) and Naphthalene. This list was chosen based on a survey of the most often found chemicals on brownfield projects.

THEORY

The practical purpose behind obtaining permeation, diffusion, and partitioning coefficients is to apply them to the equations governing mass flux per Fick's laws during design of VI mitigation systems. The following briefly explains the theory and physics behind Fick's First Law.

The diffusion coefficient, D_g (units expressed in [m^2/s]), is the parameter defining the membrane's resistance to the diffusive mass flux [g/m^2s] transported within the membrane as governed by Fick's First Law:

$$f = -D_g \frac{dc_g}{d_z} \qquad \text{(Eq. 1)}$$

due to a concentration gradient dc_g/d_z [g/m^4] in the membrane layer. If the contaminant source is an aqueous solution adjacent to the membrane, the concentration of the contaminant in the membrane can be related to that in the fluid (at equilibrium) by the partitioning coefficient, S_{gf} (where S_{gf} is analogous to a Henry's coefficient). It is given by Equation 2 and depends on the solubility of the contaminant in the material:

$$S_{gf} = \frac{c_g}{c_f} \qquad \text{(Eq. 2)}$$

where c_f is the concentration of the contaminant in the fluid, adjacent to and in equilibrium with, the concentration, c_g, in the membrane.

Thus, the mass flux (f) from the fluid on one side of the membrane to the fluid on the other side (at steady state) is given by:

$$f = S_{gf} D_g \frac{dc_g}{d_z} = \frac{P_g}{l} \Delta C \qquad \text{(Eq. 3)}$$

where l is the thickness of the film/membrane, and ΔC is the difference in concentration between the two sides of the film/membrane at steady state, and the product of the two parameters (S_{gf} D_g) is called the permeation coefficient, P_g (m^2/s):

$$P_g = S_{gf} D_g \quad \text{(Eq. 4)}$$

It can be gleaned from Equations 1-4 that the diffusion coefficient, D_g, is not enough to characterize the film's mass transfer properties for contaminants moving from below the membrane to above it. Diffusive mass transfer through an intact geomembrane is a 3-step process: partitioning into the geomembrane; diffusion through the geomembrane; and partitioning out of the geomembrane. Both D_g and S_{gf} (or simply P_g) must be known in order to effectively utilize Fick's steady state mass transfer equations. Therefore, to allow for full and complete analysis, Drago Wrap's permeation was fully characterized with all three values (permeation, diffusion, and partitioning coefficients) for each chemical tested. Those values are contained in Table 2. It is also imperative to understand the differences in methodologies between lab and site-specific field-testing setups. If such differences exist, the addition of the phase transition coefficient between water and air, Henry's coefficient (H), may also be required in the analysis. A deeper discussion on accounting for these differences is beyond the scope of this summary. Please contact the Stego Industries' Technical Department for additional assistance.

TESTING METHODOLOGY

Two types of tests and subsequent modeling have been employed in characterizing Drago Wrap's relevant characteristics: diffusion testing, sorption testing, and the finite layer modeling and analysis program, POLLUTE v7 (Rowe and Booker 2004).

The diffusion testing setup used stainless steel double-compartment cells (Figure 1), such that source and receptor volumes were separated by the Drago Wrap membrane. The cell was screwed together, with the membrane secured using two Viton rings (Figure 2) to prevent the loss of contaminant at the connection between each compartment and the membrane. Both the source and receptor were filled with double deionized (DDI) water, and a septum was inserted into the sampling ports to prevent losses. A stock solution of contaminants was added to the source compartment to form a dilute aqueous solution with a known concentration. Before assembly, and after disassembly, the mass of the membrane was recorded.

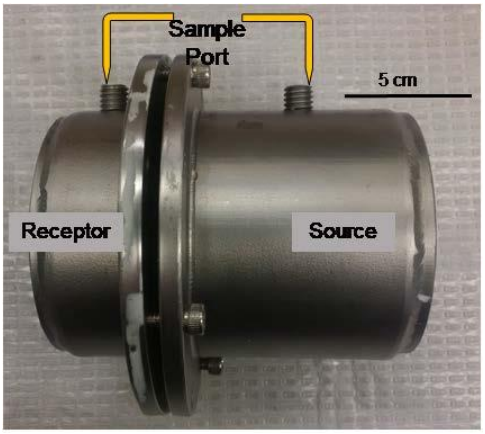


Figure 1: Double Compartment Cell

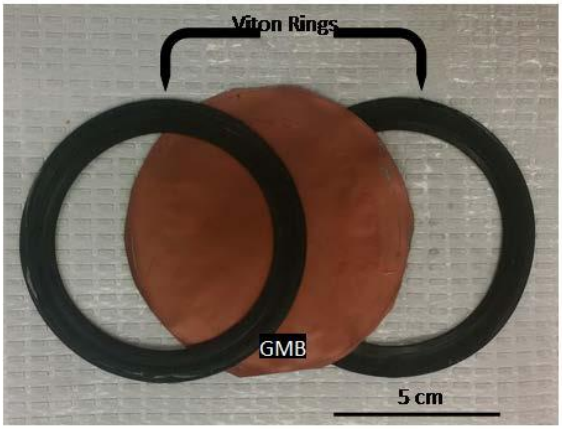


Figure 2: Membrane and Viton Rings

Sorption testing was also performed to directly measure the partitioning coefficients for each chemical. The sorption testing was conducted using 20-ml vials where a specimen was placed in double deionized water. The mass of the specimen was recorded beforehand. The vials were filled with double deionized water so that there was no airspace in the vial. Known masses of contaminants were added and 50 µl samples were taken daily from the vials for analysis and replaced with double deionized water until equilibrium was reached. The chemical analysis of these specimens was performed in the same manner as chemical analysis of the diffusion tests. This analysis is described in Appendix B.

The results from the diffusion and sorption tests were transduced and analyzed using the finite layer modeling and analysis program, POLLUTE v7, to create the results seen in Table 2.

In addition to whole-film testing, the discrete layers that make up Drago Wrap were tested to determine their respective permeation, diffusion and partitioning coefficients. The results obtained from the mathematical modeling of these tests do not necessarily equate to the values obtained from whole-film permeation testing. In other words, the full membrane benefits from a synergistic effect: the whole is greater than the sum of its parts. Due to its unique design, the testing demonstrated a very important feature to Drago Wrap: its ability to degrade chlorinated solvents like TCE. The results show about a 50-day half-life for TCE when the membrane is installed in its intended orientation. The results in Table 2 come from the most conservative approach to analyzing the results and do not consider these synergies.

RESULTS

As described earlier, the values displayed in Table 2 result from a conservative approach to the analysis of data generated from several phases and years of testing, and subsequent numerical modeling. The preferred methodology for obtaining accurate results requires an aqueous-to-aqueous testing scenario. Table 2 depicts these results. There exist scenarios where mass flux design with Drago Wrap requires additional consideration of phase-change analysis beyond what is offered in Table 2. Please contact the Stego Industries' Technical Department for assistance should the need arise.

Table 1 – Descriptions of the Tested Chemicals

Chemical	Abbreviation	Family	Use
Benzene	Btex	Aromatic Hydrocarbon	Gasoline byproduct
Toluene	bTex	Aromatic Hydrocarbon	Gasoline byproduct
Ethylbenzene	btEx	Aromatic Hydrocarbon	Gasoline byproduct
M&P-Xylenes	bteX	Aromatic Hydrocarbon	Gasoline byproduct
O-Xylene	bteX	Aromatic Hydrocarbon	Gasoline byproduct
Trichloroethylene	TCE	Chlorinated Hydrocarbon	Dry Cleaning and Solvent
Tetrachloroethylene	PCE	Chlorinated Hydrocarbon	Dry Cleaning and Solvent
Methyl tert-butyl ether	MTBE	Oxygenate	Octane-increasing additive to fuel
Dichloromethane	DCM	Chlorinated Hydrocarbon	Paint Stripper, Decaffeinate, Aerosol propellant
Naphthalene	Naphthalene	Polycyclic Aromatic Hydrocarbon	Fumigant, Pyrotechnics, Wetting Agent
1,4-Dichlorobenzne	1,4-DCB	Chlorinated Hydrocarbon	Pesticide, Disinfectant, Deodorant

Table 2 – Aqueous Coefficients

Chemical	Diffusion, D_g [x 10^{-15} m^2/s]	Partitioning, S_{gf} [-]	Permeation, P_g [x 10^{-13} m^2/s]
Benzene	2.6	171	4.5
Toluene	1.5	339	5.1
Ethylbenzene	0.41	764	3.1
M&P-Xylenes	0.4	743	2.9
O-Xylene	0.4	670	2.7
TCE	3.9	251	9.8
PCE	1.1	610	6.6
MTBE	1	1	0.01
DCM	0.95	475	4.5
Naphthalene	0.014	1710	0.25
1,4-DCB	0.94	760	7.1

CONCLUSION

Drago Wrap has proven to be a superior barrier to standard geomembranes like HDPE (by a factor of about 10 to 200 – See Appendix A) for all contaminants where comparisons could be made to HDPE and has remarkably low values for BTEX, TCE; PCE; MTBE; Naphthalene; DCM; and 1,4 DCB with permeation coefficients of the order of magnitude of 10^{-13} – 10^{-14} m^2/s. In addition, the testing has shown that chlorinated solvents experience degradation while permeating through the membrane with a half-life of 50 days for TCE when the film is correctly oriented relative to the contaminant source.

APPENDIX A – COMPARISON TO HDPE (WHERE AVAILABLE)

	Permeation Coefficients- 20-mil Drago Wrap			Permeation Coefficients – 80-mil HDPE[1]			
	D_g (m^2/s)	S_{gf} (-)	P_g (m^2/s)	D_g (m^2/s)	S_{gf} (-)	P_g (m^2/s)	Ratio (P_{gDrago}/P_{gHDPE})
Benzene	$2.6x10^{-15}$	171	$4.5x10^{-13}$	$3.5x10^{-13}$	30	$1.05 x10^{-11}$	23
Toluene	$1.5x10^{-15}$	339	$5.1x10^{-13}$	$3.0 x10^{-13}$	100	$3.0 x10^{-11}$	60
Ethylbenzene	$4.1x10^{-16}$	764	$3.0x10^{-13}$	$1.8 x10^{-13}$	285	$5.1 x10^{-11}$	170
m&p-Xylenes	$4.0x10^{-16}$	743	$2.9x10^{-13}$	$1.7 x10^{-13}$	347	$5.9 x10^{-11}$	200
o-Xylene	$4.0x10^{-16}$	670	$2.7x10^{-13}$	$1.5 x10^{-13}$	240	$3.6 x10^{-11}$	130
TCE	$3.9x10^{-15}$	251	$9.8x10^{-13}$	$4.0 x10^{-13}$	85	$3.4 x10^{-11}$	35
PCE	$1.1x10^{-15}$	610	$6.6x10^{-13}$	-	-	-	-
MTBE	$1.0x10^{-15}$	1	$1.0x10^{-15}$	-	-	-	-
DCM	$9.5x10^{-16}$	475	$4.5x10^{-13}$	$6.5 x10^{-13}$	6	$3.9 x10^{-12}$	9
Naphthalene	$1.4x10^{-17}$	1710	$2.5x10^{-14}$	-	-	-	-
1,4-DCB	$9.4 x10^{-16}$	760	$7.1x10^{-13}$	-	-	-	-

[1]Sangam & Rowe (2001)

APPENDIX B– CHEMICAL ANALYSIS

The cells were sampled at regular time intervals. During each sampling event, 10 ul to 100 ul was removed from the cell, and that volume was replaced with DDI water so there was no airspace in the cell.

The samples were added to a vial containing 0.4 ml of methanol, 0.01 ml internal standard, and water was added so the total fluid volume in the vial was 1.6 ml. A Solid Phase Micro Extraction (SPME) fiber was inserted into vial headspace and the volatile compounds sorbed onto the fiber. This fiber was analyzed using gas chromatography (GC), and results compared to a certified laboratory standard calibration curve for the contaminant in question. Two types of detectors were used (depending on the cell in question); namely, a mass selective detector and a flame ionization detector. A quality assurance certified lab standard (from a different source to the calibration standards) was assessed during each sampling event.

All laboratory testing was conducted in a Canadian Association for Laboratory Accreditation (CALA) lab and followed CALA methods. This means that rigorous quality assurance practices were followed during chemical analysis. CALA frequently reviews the methods used and the accreditation is renewed every two years.

REFERENCES

Rowe, R. K., and Booker, J. R. (2004). "POLLUTE V.7 - 1D Pollutant Migration through a Non-homogenous Soil." GAEA Environmental Engineering Ltd.

Sangam, H. P., and Rowe, R. K. (2001). "Migration of dilute aqueous organic pollutants through HDPE geomembranes." Geotextiles and Geomembranes, 19(6), 329–357.

DRAGO® WRAP VAPOR INTRUSION BARRIER
RESISTANCE TO DEGRADATION – ADDITIONAL CONSIDERATIONS

Drago Wrap Vapor Intrusion Barrier, and the technologies that underlie this game-changing vapor intrusion protection product, has undergone extensive testing to determine its ability to attenuate VOCs and other relevant material properties. These tests exposed Drago Wrap to a host of deleterious chemicals that may exist at or below a project site, including various petroleum distillates, chlorinated solvents, etc. The results of these tests are positive and telling; they show that Drago Wrap is extremely impermeable to a wide range of chemical vapors and, more importantly for our current considerations, maintains such impermeability over the course of years of exposure to these deleterious compounds.

While the results of such testing speak extensively to Drago Wrap's ability to resist degradation in extreme exposure conditions, we wished to pursue multiple exposure scenarios to further increase the confidence project team members should have in Drago Wrap as a critical component of the vapor intrusion systems they utilize on their projects. The following pages detail these measures. The conclusions indicate that there were no significant changes in mass or volume of Drago Wrap when exposed to direct contact with soils contaminated with benzene, toluene, ethylbenzene, xylene (collectively known as BTEX), trichloroethylene (TCE), perchloroethylene (PCE, or tetrachloroethylene), cis-1,2-dichloroehtylne (C-DCE), trans-1,2-dichloroehtylene (T-DCE), and sulfates. Additionally, we tested the post-exposure samples to determine their tensile strength (ASTM E882) and permeance to water vapor (F1249), and we observed that Drago Wrap maintains its ability to meet each corresponding performance threshold for high-performance water vapor barriers: for D882, Drago Wrap remains a Class A Vapor Barrier per ASTM E1745; for F1249, Drago Wrap maintains a permeance well below 0.01 perms.

If additional questions remain regarding any aspect of Drago Wrap, please be sure to contact the Stego Technical Department. We are happy to help and look forward to the opportunity to provide an effective and economical solution to your barrier needs.

Regards,

Dan Marks CSI CDT LEED Green Associate
Technical Director | Stego Industries, LLC
O: (949) 325-2035| F: (949) 325-2062
danmarks@stegoindustries.com

SETUP

To simulate a hydrocarbon contaminated brownfield site, a senior chemist at a research and testing lab prepared contaminated water to contain 1,000 ppb of each benzene, toluene, ethylbenzene, and xylene (BTEX). Two liters of this mixture were placed in a chamber, 49 cm x 23.5 cm wide by 27 cm tall. ASTM C778 standard 20-30 sand was added to the vessel until it was 5 cm above the original water line. At this level, the sand was damp with no free-standing water. Drago Wrap samples were placed on top of the damp sand, and the entire surface of the membrane were weighted down with sand-filled plastic bags to ensure full contact of the Drago Wrap with the damp sand. The test vessel was covered and sealed. After 30 days of exposure under ambient laboratory conditions (21-25°C), the samples were removed for evaluation.

Simply stated:
We took relatively large amounts of often-seen hydrocarbons resulting from fuel spills and old service station sites and put them into a water table just 2 inches below a sample of Drago Wrap. This can be considered an extreme situation in that water tables are not typically that close to the slab and vapor barrier membrane. After a 30-day exposure, the mass and volume changes were analyzed, and we subsequently tested the material for its water vapor permeance rating and tensile strength.

RESULTS

Mass and Volume

The chemist conducted mass and volume measurements before and after exposure. The following comes directly from her report: *"All of the test coupons exhibited slight changes in mass and volume, no matter what their exposure conditions were. Statistical analysis by the two-tailed t-test showed that the changes for the BTEX-exposed coupons were not significantly different from the changes for the control-exposed coupons."*

Conclusion: In other words, Drago Wrap mass and volume were not significantly affected by the BTEX exposure.

Tensile Strength

Samples were sent by the lab to our in-house lab and tested per ASTM E882 in both the machine and transverse directions. After the 30-day extreme BTEX solvent exposure, the results were 50.2 lbf/in and 49.6 lbf/in for machine and transverse directions respectively. These results were not significantly different than the water-exposed control samples (48.7 lbf/in, 48.5 lbf/in) or the unexposed samples (48.5 lbf/in, 46.8 lbf/in). For another point of comparison, consider that to be labeled as Class A per ASTM E1745, new-material tensile need only test at 45 lbf/in.

Conclusion: BTEX exposure has little to no effect on Drago Wrap's physical integrity in below-slab applications.

Water Vapor Permeance

The testing lab then sent exposed and control samples to our in-house lab where they were subsequently tested per ASTM F1249. The results were very positive. The permeance of the sample exposed to the BTEX solution (0.00733 perms) increased minimally compared to the control (0.00614 perms), both staying well below the threshold of 0.01 perms.

Conclusion: BTEX exposure had minimal effect on Drago Wrap's ability to retard water vapor.

SETUP

To simulate a dry-cleaning brownfield site, a senior chemist at a research and testing lab prepared contaminated water to contain 3,600 ppb perchloroethylene (PCE), 12,500 PPB trichloroethylene (TCE), 16,200 PPB CIS-1,2-dichloroethylene (C-DCE), AND 1,700 PPB trans-1,2-dichlorothylene (T-DCE). Two liters of this mixture were placed in a chamber, 49 cm x 23.5 cm wide and 27 cm tall. ASTM C778 standard 20-30 sand was added to the vessel until it was 5 cm above the original water line. At this level, the sand was damp with no free-standing water. Drago Wrap samples were placed on top of the damp sand, and the entire surface of the vapor barrier was weighted down with sand-filled plastic bags to ensure full contact of the Drago Wrap with the damp sand. The test vessel was covered and sealed. After 30 days of exposure under ambient laboratory conditions (21-25°C), the samples were removed for evaluation.

Simply stated:
We took an actual soils report from an old dry cleaning site and recreated the conditions, roughly. In the actual scenario the water table was 20 feet below the vapor barrier. In our setup, we created a contaminated water table just 2 *inches* below Drago Wrap. After a 30-day exposure, the mass and volume changes were analyzed, and we subsequently tested the material for its water vapor permeance rating and tensile strength.

RESULTS

Mass and Volume

The chemist conducted mass and volume measurements before and after exposure. The following comes directly from her report: *"All of the test coupons exhibited slight changes in mass and volume, no matter what their exposure conditions were. Statistical analysis by the two-tailed t-test showed that the changes for the chlorinated solvent-exposed coupons were not significantly different from the changes for the control-exposed coupons."*

Conclusion: Drago Wrap's mass and volume were not significantly affected by the chlorinated solvent exposure.

Tensile Strength

Samples were sent by the lab to our in-house lab and tested per ASTM E882 in both the machine and transverse directions. After the 30-day extreme chlorinated solvent exposure, the results were 51.2 lbf/in and 49.7 lbf/in for machine and transverse directions respectively. These results were not significantly different than the water-exposed control samples (48.7 lbf/in, 48.5 lbf/in) or the unexposed samples (48.5 lbf/in, 46.8 lbf/in). For another point of comparison, consider that to be labeled as Class A per ASTM E1745, new-material tensile need only test at 45 lbf/in.

Conclusion: Chlorinated solvent exposure has little to no effect on Drago Wrap's physical integrity in below-slab applications.

Water Vapor Permeance

The testing lab then sent exposed and control samples to our in-house lab where they were subsequently tested per ASTM F1249. The results were very positive. The permeance of the sample exposed to the BTEX solution (0.00713 perms) increased minimally compared to the control (0.00614 perms), both staying well below the threshold of 0.01 perms.

Conclusion: Chlorinated solvent exposure had minimal effect on Drago Wrap's ability to retard water vapor.

SETUP

To simulate the worst possible sulfate exposure, a senior chemist at a research and testing lab prepared water contaminated with 10,000 PPM of SO4 (sulfate.) This sulfate concentration was chosen because it was rated as "very severe" (the highest or worst classification) by UC Berkeley professors conducting research for the Caltrans Long Life Pavement Rehabilitation Strategy (LLPRS) Program. The Chemist took this worst-case scenario concentration and soaked samples of Drago Wrap in it for 28 days. Upon removal, the samples were analyzed for changes in mass and volume, and subsequently the exposed product was tested to determine its tensile strength and water vapor permeance rate.

RESULTS

Mass & Volume

The chemist conducted mass and volume measurements before and after exposure. The following comes directly from her report: *"All of the test coupons exhibited slight changes in mass and volume, no matter what their exposure conditions were. Statistical analysis by the two-tailed t-test showed that the changes for the sulfate-exposed coupons were not significantly different from the changes for the control-exposed coupons."*

Conclusion: In other words, Drago Wrap's mass and volume were not significantly affected by the sulfate exposure.

Tensile

Samples were sent by the lab to our in-house lab and tested per ASTM E882 in both the machine and transverse directions. After the 28-day extreme sulfate exposure, the results were 49.6 lbf/in and 52.3 lbf/in for machine and transverse directions respectively. These results were not significantly different than the water-exposed control samples (48.7 lbf/in, 50.8 lbf/in) or the unexposed samples (48.5 lbf/in, 46.8 lbf/in). For another point of comparison, consider that to be labeled as Class A per ASTM E1745, new-material tensile need only test at 45 lbf/in.

Conclusion: Sulfate exposure has little to no effect on Drago Wrap's physical integrity in below-slab applications.

Water Vapor Permeance

The testing lab then sent exposed and control samples to our in-house lab where they were subsequently tested per ASTM F1249. The results were very positive. The permeance of the sample exposed to the sulfate solution (0.00734 perms) increased minimally compared to the control (0.00698 perms), both staying well below the threshold of 0.01 perms.

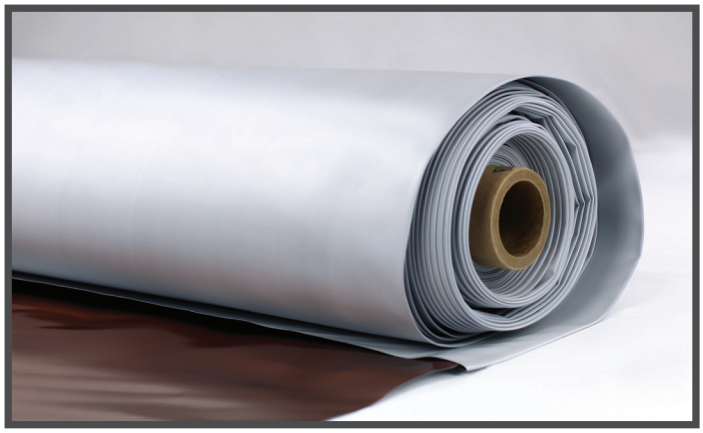
Conclusion: Sulfate exposure had no significant effect on Drago Wrap's ability to retard water vapor.

DRAGO® WRAP
VAPOR INTRUSION BARRIER

A STEGO TECHNOLOGY, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: 2/22/2019

1. PRODUCT NAME

DRAGO WRAP VAPOR INTRUSION BARRIER



2. MANUFACTURER

c/o Stego® Industries, LLC*
216 Avenida Fabricante, Suite 101
San Clemente, CA 92672
Sales, Technical Assistance
Ph: (877) 464-7834
Fx: (949) 257-4113
www.stegoindustries.com

3. PRODUCT DESCRIPTION

USES: Drago Wrap is specifically engineered to attenuate volatile organic compounds (VOCs) and serve as a below-slab moisture vapor barrier.

COMPOSITION: Drago Wrap is a multi-layered plastic extrusion that combines uniquely designed materials with only high grade, prime, virgin resins.

ENVIRONMENTAL FACTORS: Drago Wrap can be used in systems for the control of various VOCs including hydrocarbons, chlorinated solvents, radon, methane, soil poisons, and sulfates.

4. TECHNICAL DATA

TABLE 4.1: PHYSICAL PROPERTIES OF DRAGO WRAP VAPOR INTRUSION BARRIER

PROPERTY	TEST	RESULTS
Under Slab Vapor Retarders	ASTM E1745 – Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs	ASTM E1745 Compliant
Water Vapor Permeance	ASTM F1249 – Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0069 perms
Push-Through Puncture	ASTM D4833 – Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products	183.9 Newtons
Tensile Strength	ASTM D882 – Test Method for Tensile Properties of Thin Plastic Sheeting	53.5 lbf/in
Permeance After Conditioning (ASTM E1745 Sections 7.1.2 - 7.1.5)	ASTM E154 Section 8, F1249 – Permeance after wetting, drying, and soaking ASTM E154 Section 11, F1249 – Permeance after heat conditioning ASTM E154 Section 12, F1249 – Permeance after low temperature conditioning ASTM E154 Section 13, F1249 – Permeance after soil organism exposure	0.0073 perms 0.0070 perms 0.0062 perms 0.0081 perms
Hydrocarbon Attenuation Factors	Contact Stego Industries' Technical Department	
Chlorinated Solvent Attenuation Factors	Contact Stego Industries' Technical Department	
Methane Transmission Rate	ASTM D1434 – Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting	7.0 GTR** (mL(STP)/m^2*day)
Radon Diffusion Coefficient	K124/02/95	9.8 x 10^{-14} m^2/second
Thickness		20 mil
Roll Dimensions		14' x 105' or 1,470 ft^2
Roll Weight		150 lb

Note: perm unit = grains/(ft^2*hr*in-Hg) ** GTR = Gas Transmission Rate

Continued...
Note – legal notice on page 2.

DRAGO® WRAP
VAPOR INTRUSION BARRIER

5. INSTALLATION

UNDER SLAB: Unroll Drago Wrap over a tamped aggregate, sand, or earth base. Overlap all seams a minimum of 12 inches and tape using Drago® Tape. All penetrations must be sealed using a combination of Drago Wrap and Drago Accessories.

Review Drago Wrap's complete installation instructions prior to installation.

6. AVAILABILITY & COST

Drago Wrap is available nationally through our network of building supply distributors. For current cost information, contact your local Drago distributor or Stego Industries' Sales Representative.

7. WARRANTY

Stego Industries, LLC believes to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions are not within its control, Stego Industries does not guarantee results from the use of the information provided and disclaims all liability from any loss or damage. Stego Technology, LLC does offer a limited warranty on Drago Wrap. Please see www.stegoindustries.com/legal.

8. MAINTENANCE

Store Drago Wrap in a dry and temperate area.

9. TECHNICAL SERVICES

Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego Industries or by visiting the website.

Contact Number: (877) 464-7834
Website: www.stegoindustries.com

10. FILING SYSTEMS

- www.stegoindustries.com

DRAGO® WRAP LIMITED WARRANTY
ISSUER: STEGO TECHNOLOGY, LLC ("Stego Tech")

This Drago Wrap Limited Warranty ("the Warranty") commences on the Effective Date and applies to Drago Wrap Vapor Intrusion Barrier (for the purposes of this Warranty "Drago Wrap").

Stego Tech recommends installation of Drago Wrap per ASTM E1643, its published installation instructions, and in accordance with all site-specific recommendations of the project's design team. Drago Wrap is specifically engineered to be installed in conjunction with its proprietary accessories, including Drago® Tape, DragoTack™ Tape, Drago® Sealant, and Drago® Sealant Form. Additionally, to avoid puncturing Drago Wrap and comply with ASTM E1643, Stego Tech recommends utilizing the Beast® Screed system of vapor barrier-safe accessories.

WARRANTY TERMS AND CONDITIONS

1 DRAGO WRAP WARRANTY

Stego Tech recognizes the most current version of ASTM E1745 (at the time of the material purchase) as the governing standard specification for under-slab vapor retarders. Subject to the limitations set forth below, for the Life of the Building™ Stego Tech warrants that Drago Wrap:

(a) meets all of the requirements for its designated ASTM E1745 classification;
(b) has been tested in accordance with each of the following ASTM test methods:
  i. ASTM E1745 – *Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*
  ii. ASTM F1249 – *Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor*
  iii. ASTM D1709 – *Test Methods for Impact Resistance of Plastic Film by Free-Falling Dart Method*
  iv. ASTM D882 – *Test Method for Tensile Properties of Thin Plastic Sheeting*
  v. ASTM E154 – *Sections 8, 11, 12, 13 – Permeance After Conditioning* [1]
  vi. ASTM D1434 – *Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting*
  vii. ASTM D4833 – *Standard Test Method for Index Puncture Resistance of Geomembranes and Related Products*
(c) will be free from Manufacturing Composition Defects;
(d) eligible for input on project-specific installation best practices by a Stego Tech-authorized representative during the preconstruction phase upon reasonable notice, in-person or remotely; and
(e) eligible for Site Review by a Stego Tech-authorized representative, in-person or digitally, for input on installation prior to concrete placement upon reasonable notice.
(f) will meet or exceed its published product literature for **a period not less than two (2) years from the Date of Installation.**

This Warranty is the sole Warranty given by Stego Tech or its Affiliates as to Drago Wrap. All installations or uses of Drago Wrap automatically activate this Warranty. If you do not wish to be bound by the terms of this Warranty, please return the Drago Wrap for a full Refund. Otherwise, all installations will be presumed to have agreed to the terms herein.

2 NOTICE AND CLAIMS

Any Claim pursuant to this Warranty must be Certified and must be made within sixty (60) days of the date discovered or the date it should reasonably have been discovered in order for Stego Tech to evaluate the Claim and replace the Drago Wrap. Claims may be made at any time during the Life of the Building. Such replacement (or at Stego Tech's option, Refund of the verified purchase price) shall be your sole and exclusive remedy for any such Claim.

[1] Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.

Continued...
Note - legal notice on last page.

3 WARRANTY AND CONDITIONS TO COVERAGE

This Warranty excludes any defect or damage caused by: (a) faulty or improper installation of the Drago Wrap, including the failure to comply with published specification and installation recommendations in effect at the time of installation; (b) improper use, storage or site conditions (e.g noncompliance with the terms of the Drago Wrap Material Safety Data Sheet); (c) any below-concrete slab or similar activity, and any other maintenance, repair, alteration or new installation to the Building that occurs after the completion of the original installation that impacts the Drago Wrap; (d) damage caused by non-Stego Tech materials; (e) factors beyond the reasonable control of Stego Tech or its Affiliates, including, but not limited to, natural disasters such as lightning, floods, windstorms, seismic disturbances, hurricanes, tornadoes, or impact of foreign objects or other violent storms or casualty; (f) damage resulting from any form of misuse, abuse or negligence; (g) structural defects or failures in the Building to which the Drago Wrap is installed.

Your sole remedy under this Warranty is, at Stego Tech's option: (a) Refund of the purchase price paid; or (b) replacement of so much of the Drago Wrap as Stego Tech deems necessary.

4 WARRANTY EXCLUSIONS

Except where prohibited by law, this Warranty and the remedies expressly stated herein are the exclusive warranties and remedies provided to you with respect to the Drago Wrap and supersede any prior, contrary or additional representations, whether oral or written. No representative, distributor, dealer or any other person is authorized to make, or makes any warranty, representation, condition or promise with respect to the Drago Wrap. ALL OTHER WARRANTIES ARE DISCLAIMED AND EXCLUDED – WHETHER EXPRESS, IMPLIED, OR STATUTORY – INCLUDING ANY **WARRANTY OF MERCHANTABILITY**, ANY **WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE**, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING, COURSE OF PERFORMANCE, OR USAGE OF TRADE.

In no event shall Stego Tech or its Affiliates be liable for any incidental, special, indirect, consequential damages, including but not limited to lost income or loss of use. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence, or strict liability in tort or any other legal or equitable theory.

5 SEVERANCE

If any provision in this Warranty is found to be invalid or unenforceable, then the remainder shall have full force and effect, and the invalid provision shall be modified or partially enforced to the maximum extent permitted by law to effectuate the purpose of the Warranty.

6 DISPUTE RESOLUTION

It is the intention of the parties to use their reasonable best efforts to informally resolve, where possible, any dispute, claim, demand or controversy arising out of the performance of this Warranty by mutual negotiation and cooperation. In the event that the parties are unable to informally resolve a dispute, the Parties agree that such disputes shall be completely and finally settled by submission to arbitration before a single arbitrator under the Judicial Arbitration and Mediation Services (JAMS) Arbitration Rules then in effect. Good faith mediation shall be a condition precedent to initiating arbitration. Unless the parties agree otherwise, the arbitration shall take place in Orange County, California, U.S.A. The award of the arbitrator shall be in writing, shall be final and binding upon the parties, shall not be appealed from or contested in any court and may, in appropriate circumstances, include injunctive relief. Judgment on such award may be entered in any court of appropriate jurisdiction, or application may be made to that court for a judicial acceptance of the award and an order of enforcement, as the party seeking to enforce that award may elect. The prevailing party shall be entitled to recover its attorney fees and costs. This Agreement shall be governed in all respects by the laws of the State of California without regard to the conflict of law provisions thereof. Neither party will consolidate, or seek class treatment for any action unless previously agreed to in writing by all parties.

Continued...
Note - legal notice on last page.

DEFINITIONS

"***Affiliates***" means Stego Tech affiliated entities, partners, joint venturers, suppliers, vendors, subcontractors, representatives, and agents.

"***Applicable Date***" means the Limited Warranty applies to material sold on or after January 1, 2018.

"***Building***" means the building above which Drago Wrap was installed, as verified by Stego Tech.

"***Certified***" means that you have investigated whether a breach of this Warranty occurred and obtained and provided a qualified inspector report confirming evidence exists of such a Defect. Stego Tech reserves the right to independently verify any Claims.

"***Claim***" means a claim for relief under the Warranty.

"***Date of Installation***" means the date Drago Wrap was installed, as verified by Stego Tech.

"***Effective Date***" means date of first sale as verified.

"***Life of the Building***" means the duration of which the building originally installed atop of the Drago Wrap is in good and working condition.

"***Manufacturing Composition Defect***" means any condition of the Drago Wrap that does not meet the material's intended design and is disclosed to Stego Tech during the Life of the Building.

"***Refund***" means Stego Tech providing a monetary return in the amount verified to be the cost of the Drago Wrap subject to the Claim.

"***Site Review***" means a review of representative portions of the Drago Wrap installation (digitally or in-person, when possible, and as determined by Stego Tech authorized representative) prior to concrete placement to help ensure compliance with governing installation standard, ASTM E1643, Stego Tech's installation instructions, and/or, if applicable, the design team's recommendations (e.g. contract documents). Site Reviews are not a full site inspection.

"***Stego Tech***" means Stego Technology, LLC, a California limited liability company with its principal place of business located at 216 Avenida Fabricante, #101, San Clemente, California 92672. Stego Industries, LLC is the exclusive representative of Drago Wrap and accessory products, owned by Stego Technology, LLC, a wholly independent company.

"***Warranty***" means this Drago Wrap Limited Warranty.

DRAGO® WRAP SAFETY DATA SHEET

Revision Date: July 30, 2018 | Date of Issue: June 1, 2017 | Version Number: 2.0

SECTION 1: IDENTIFICATION

Product Identifier
Product Name: Drago Wrap

Intended Use of the Product
Vapor Intrusion Barrier

Company Name, Address, and Telephone of the Responsible Party
Stego Technology, LLC or C/O Stego® Industries, LLC*
216 Avenida Fabricante #101
San Clemente, CA 92672

Emergency Telephone Number
Emergency Number: 1 (800) 424-9300 (24 Hrs.) CHEMTREC
Main Contact Number: (877) 464-7834

SECTION 2: HAZARDS IDENTIFICATION

Classification: This product is not classified as hazardous in accordance with 29 C.F.R. § 1910.1200.
Signal word: None.
Pictogram(s): None.
Hazard statement(s): None.
Precautionary statement(s): None.
Hazards not otherwise classified: Polymer film can burn if exposed to excessive temperatures beyond the normal use of the product.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	% by WT.
Copper	Proprietary*	<10%*

The selections marked with an '*' are proprietary and considered to be Trade Secrets. This is the reason that they are listed as such, or provided as a range.

SECTION 4: FIRST AID MEASURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Inhalation: Not a respirable film. If exposed to fumes from combustion, move subject to fresh air; if breathing is difficult, give oxygen and get medical attention; if victim has stopped breathing, give artificial respiration and get medical attention.
Eye Contact: Not a probable route of exposure. If exposed to fumes from overheating or from combustion, move subject to fresh air. Flush with plenty of water; if irritation continues, get medical attention.
Skin Contact: No treatment necessary. For thermal burns, cool molten materials with water and get medical attention.
Ingestion: Not a probable route of exposure.

Continued...
Note - legal notice on page 5

Revision Date: July 30, 2018 | Date of Issue: June 1, 2017 | Version Number: 2.0

SECTION 5: FIRE-FIGHTING MEASURES

Unusual Hazards: Polymer film can burn if exposed to excessive temperature beyond the normal use of the product.
Extinguishing Agents: Use extinguishing media appropriate for surrounding fire: carbon dioxide, foam, dry chemical, and water fog.
Personal Protective: Equipment unnecessary unless resin is burned, which is not an intended use of the product. If resin is burning, wear self-contained breathing apparatus (pressure-demand MSHAINIOSH approved or equivalent) and full protective gear.

Note: See Section 10 for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: None necessary.
Procedures: None necessary.

SECTION 7: HANDLING AND STORAGE

Storage Conditions: Cool, dry storage recommended. Indoor storage recommended.
Avoid storing films in areas containing aromatic hydrocarbons, halogenated compounds, chlorinated compounds, oxidative agents, solvents or other known polyethylene solubilizers, prodegradants, as they may impact the product performance and/or service life.
Handling Procedures: Avoid direct sunlight. Avoiding direct UV exposure of product. Avoid contact with incompatible materials.
Installation Temperature Range: Below 110°F (ambient). Please also see technical and safety data sheets for accessory products installation/application temperature ranges.
In-Service Temperature Range: Below 85°F (soil and slab temperature, beginning 28 days following slab placement). Please also see technical and safety data sheets for accessory products installation/application temperature ranges.
Exposure to Ultraviolet Radiation/Weather Events: The amount of time between when Stego Wrap is installed and when concrete is placed or other complete protection from sunlight and weather events is provided should be minimized while not exceeding 7 days.

Please review the remainder of the SDS and this wrap's technical data sheet for storage and additional information. If any of the conditions cited above pose a problem for the typical installation of Drago Wrap, please contact Stego Industries for additional information and solutions.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	OSHA PEL	ACGIH TWA
Copper	0.1 mg/m^3 (Cu fume)	0.2 mg/m^3 (Cu fume)

Respiratory Protection: None required during handling. Local exhaust to remove fumes from heat sealing and hot wire cutting areas of packaging or bag converting for worker comfort.
Eye Protection: None necessary.
Hand Protection: None necessary.
Engineering Controls (Ventilation): Use local exhaust ventilation when routinely heat sealing this product. Recommended ventilation is with a minimum capture velocity of 100 ft/min. (30 m/min.) at the point of vapor evolution. Refer to the current edition of *Industrial Ventilation: A Manual of Recommended Practice* published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

Continued...
Note - legal notice on page 5

Revision Date: July 30, 2018 | Date of Issue: June 1, 2017 | Version Number: 2.0

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES *Continued...*

General Physical Form: Solid plastic film.

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Plastic film
Color:	Copper and Gray
State:	Solid
Odor Characteristics:	None
Odor Threshold:	None
pH:	Not Applicable
Melting Point/Freezing Point:	Not Applicable
Initial Boiling Point and Boiling Point Range:	Not Applicable
Flash Point:	Not Applicable
Evaporation Rate:	Not Applicable
Flammability (solid, gas):	Not Applicable
Upper flammability:	Not Applicable
Lower Flammability:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	Not Applicable
Solubility:	Not Applicable
Partition Coefficient: n-octanol/water:	Not Applicable
Auto ignition-temperature:	Not Applicable
Decomposition temperature:	>325°C (617°F)
Viscosity:	Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Instability: This material is considered stable. Thermal decomposition is dependent on time and temperature.

HAZARDOUS DECOMPOSITION PRODUCTS

Substance	Condition
Hydrocarbons	Combustion by-product
Carbon Monoxide	Combustion by-product
Carbon Dioxide	Combustion by-product
Copper Fume	Combustion by-product

Hazardous Polymerization: Product will not undergo hazardous polymerization. Product does not decompose at ambient temperatures.
Incompatibility: Lead azide and lead stiphanate commonly used in high explosive detonators react violently with copper.
Reactivity: Reacts and binds with polar gases such as Hydrogen sulfide (H_2S), Ozone (0_3), Carbonyl sulfide (COS), Sulfur Dioxide ($S0_2$), Hydrogen chloride (HCI), Formic Acid, Acetic Acid.
Hazardous Decomposition: Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

Continued...
Note - legal notice on page 5

Revision Date: July 30, 2018 | Date of Issue: June 1, 2017 | Version Number: 2.0

SECTION 11: TOXICOLOGICAL INFORMATION

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

Acute Data: No Toxicity data are available for this material.

PRIMARY ROUTES OF EXPOSURE

Skin Contact: Only if burned.
Eye Contact: Only if burned.
Respiratory Contact: Only if burned.

ACUTE EFFECTS OF EXPOSURE

Ingestion: Not a probable route of exposure.
Inhalation: No inhalation risk unless product is heated to point of burning, which in normal applications does not occur. Fumes from combustion are unlikely to be produced during heat shrinking. Local ventilation should be used for comfort. Testing data shows copper/polymer particulate count at approximately 0.007mg/m^3, which is well below OSHA PEL of 0.1 mg/m^{3+}.
Eye Contact: No eye exposure risk during all product usage except during heating if plastic is heated to point of combustion, which does not occur during the intended use of the product. Fumes from combustion, which have a low toxicity, may be produced during hot wire cutting or heat sealing. Fumes are unlikely to be produced during heat shrinking when used as directed.
Skin Contact: Not irritating when used as directed. Hot polymer created during heat shrinking, wire cutting, or heat sealing, may produce thermal bums.
Chronic Effects of Exposure: None known when used as directed.
Carcinogenicity: None known when used as directed.

SECTION 12: ECOLOGICAL INFORMATION

This material is insoluble in water and not expected to present any environmental problems in normal application, however areas containing aromatic hydrocarbons, halogenated compounds, chlorinated compounds, pH extremities, oxidative agents, solvents or other known polyethylene solubilizers, prodegradants, etc. may impact the product performance and/or service life.

SECTION 13: DISPOSAL CONSIDERATIONS

Procedure: Reclaim if feasible. If product can't be reclaimed, no special requirements are necessary; dispose of as ordinary solid waste. Pick up film for good "housekeeping" and to prevent a slipping hazard. Incineration or landfill in compliance with federal, state and local regulations. *Since regulations vary, consult applicable regulations or authorities before disposal.*

SECTION 14: TRANSPORT INFORMATION

US DOT Hazard Class: Not regulated.

Continued...
Note - legal notice on page 5

Revision Date: July 30, 2018 | Date of Issue: June 1, 2017 | Version Number: 2.0

SECTION 15: REGULATORY INFORMATION

Workplace Classification: This product is not considered hazardous under the OSHA Hazard Communication Standard (29 C.F.R. § 1910.1200).
CERCLA Information (40 C.F.R. 302.4): Because of the form in which copper is contained within the resin, releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
Waste Classification: When this product becomes a waste, it is classified as a non-hazardous waste under criteria of the Resource Conservation and Recovery Act (40 C.F.R. 261).

SECTION 16: OTHER INFORMATION

HAZARD RATING
Health: 0 | Flammability: 1 | Reactivity: 0 | Special Hazards: None
Scale: 4 = Extreme | 3 = High | 2 = Moderate | 1 = Slight | 0 = Insignificant
National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material, but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.
Rating are based on internal supplier's guidelines, and they are intended for internal use only.

ABBREVIATIONS
ACGIH = American Conference of Governmental Industrial Hygienists
OSHA = Occupational Safety and Health Administration
TLV = Threshold Limit Value
PEL = Permissible Exposure Limit
TWA = Time Weighted Average
STEL = Short-Term Exposure Limit

Disclaimer: The information contained herein relates only to the specific material identified. Stego Technology, LLC believes that such information is accurate and reliable as of the date of this material safety data sheet, but no representation, guarantee or warranty, expressed or implied, is made as to the accuracy, reliability, or completeness of the information. Stego Technology, LLC urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

Please read the product statements for all Drago® products by navigating here:
http://www.stegoindustries.com/legal

DRAGO® WRAP
VAPOR INTRUSION BARRIER

INSTALLATION INSTRUCTIONS

Engineered protection to create a ***healthy*** built environment.

DRAGO® WRAP VAPOR INTRUSION BARRIER
INSTALLATION INSTRUCTIONS

IMPORTANT: Please read these installation instructions completely, prior to beginning any Drago Wrap installation. The following installation instructions are generally based on ASTM E1643 – *Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*. There are specific instructions in this document that go beyond what is stated in ASTM E1643 to take into account vapor intrusion mitigation. If project specifications call for compliance with ASTM E1643, then be sure to review the specific installation sections outlined in the standard along with the techniques referenced in these instructions.

UNDER-SLAB INSTRUCTIONS:

1. Drago Wrap has been engineered to be installed over a tamped aggregate, sand, or earth base. It is not typically necessary to have a cushion layer or sand base, as Drago Wrap is tough enough to withstand rugged construction environments.

NOTE: Drago Wrap must be installed with the gray facing the subgrade.

Fig.1: UNDER-SLAB INSTALLATION

2. Unroll Drago Wrap over the area where the slab is to be placed. Drago Wrap should completely cover the concrete placement area. All joints/seams should be overlapped a minimum of 12 inches and taped using Drago® Tape. (Fig. 1). If additional protection is needed, install DragoTack™ Tape in between the overlapped seam in combination with Drago Tape on top of the seam.

NOTE: The area of adhesion should be free from dust, dirt, moisture, and frost to allow maximum adhesion of the pressure-sensitive tape. Ensure that all seams are taped with applied pressure to allow for maximum and continuous adhesion of the pressure-sensitive Drago Tape. Adhesives should be installed above 40°F. In temperatures below 40°F, take extra care to remove moisture/frost from the area of adhesion.

3. ASTM E1643 requires sealing the perimeter of the slab. Extend vapor retarder over footings and seal to foundation wall or grade beam at an elevation consistent with the top of the slab or terminate at impediments such as waterstops or dowels. Consult the structural and environmental engineer of record before proceeding.

Fig.2a: SEAL TO PERIMETER WALL

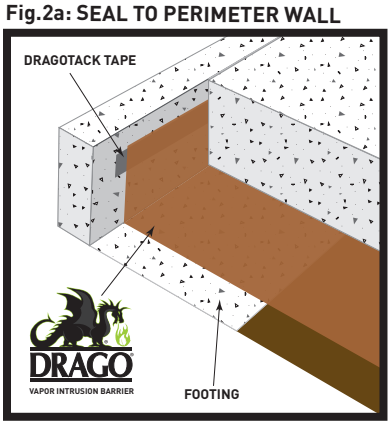
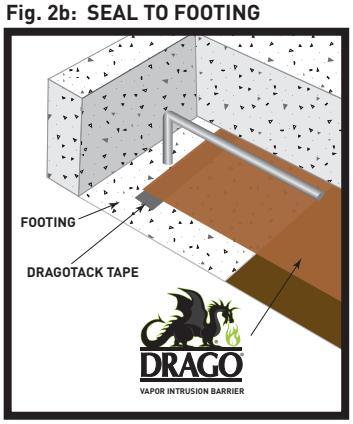


Fig. 2b: SEAL TO FOOTING



SEAL TO PERIMETER WALL OR FOOTING WITH DRAGOTACK TAPE: (Fig. 2a and 2b)

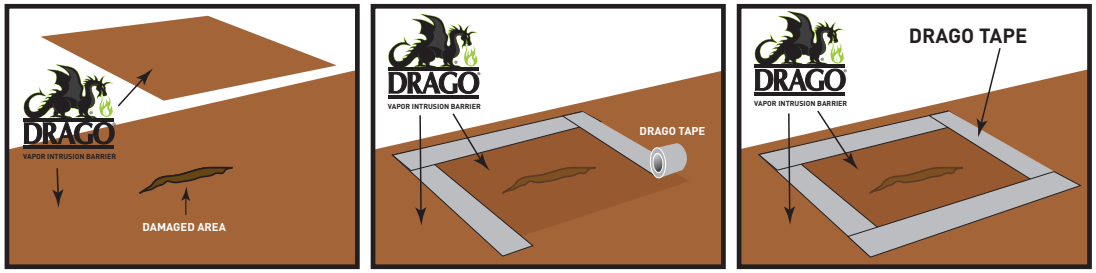
- **a.** Make sure area of adhesion is free of dust, dirt, debris, moisture, and frost to allow maximum adhesion.
- **b.** Remove release liner on one side and stick to desired surface.
- **c.** When ready to apply Drago Wrap, remove the exposed release liner and press firmly against DragoTack Tape to secure.
- **d.** If a mechanical seal is needed, fasten a termination bar over the top of the Drago Wrap inline with the DragoTack Tape.

NOTE: If sealing to the footing, the footing should receive a hand float finish to allow for maximum adhesion.

Continued ...

4. In the event that Drago Wrap is damaged during or after installation, repairs must be made. Cut a piece of Drago Wrap to a size and shape that covers any damage by a minimum of 6 inches in all directions. Clean all adhesion areas of dust, dirt, moisture, and frost. Tape down all edges using Drago Tape. (Fig. 3)

Fig. 3: SEALING DAMAGED AREAS



5. **IMPORTANT: ALL PENETRATIONS MUST BE SEALED.** All pipe, ducting, rebar, and block outs should be sealed using Drago Wrap, Drago Tape, and/or Drago® Sealant and Drago® Sealant Form. (Fig. 4a). Drago accessories should be sealed directly to the penetrations.

Fig. 4a: PIPE PENETRATION SEALING

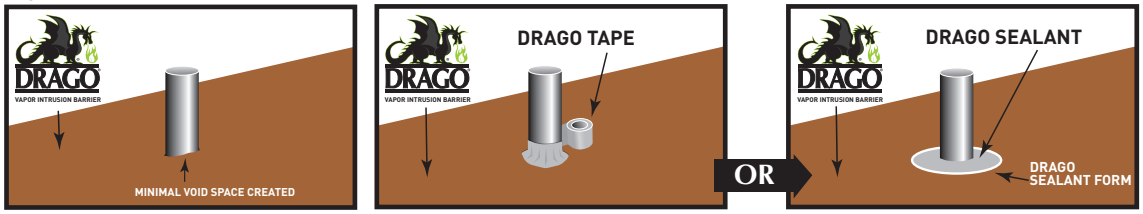
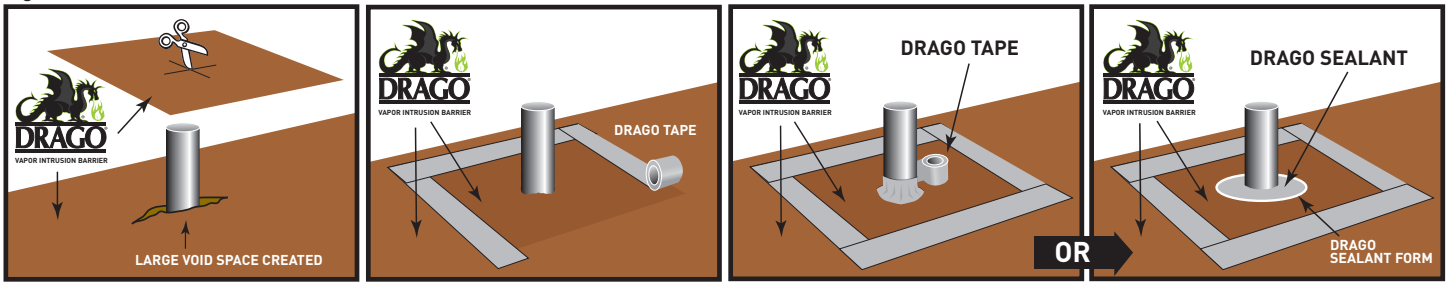


Fig. 4b: DETAIL PATCH FOR PIPE PENETRATION SEALING



DETAIL PATCH FOR PIPE PENETRATION SEALING: (Fig. 4b)

a. Install Drago Wrap around pipe penetrations by slitting/cutting material as needed. Try to minimize void space created.

b. If Drago Wrap is close to pipe and void space is minimized, proceed to step d.

c. If void space exists, then
   i. Cut a detail patch to a size and shape that creates a 6-inch overlap on all edges around the void space at the base of the pipe.
   ii. Cut an "X" slightly smaller than the size of the pipe diameter in the center of the detail patch and slide tightly over pipe.
   iii. Tape the edges of the detail patch using Drago Tape.

d. Seal around the base of the pipe using Drago Tape and/or Drago Sealant and Drago Sealant Form.
   i. If Drago Sealant is used to seal around pipe, make sure Drago Wrap is flush with the base of the penetration prior to pouring Drago Sealant.

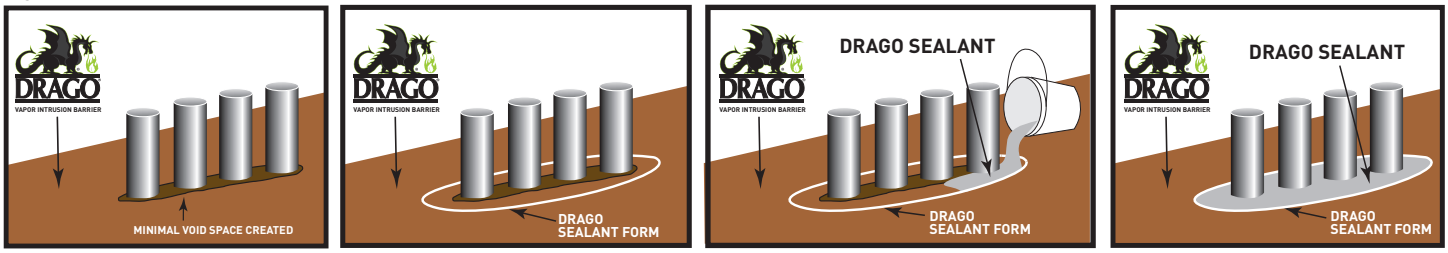
Continued ...

MULTIPLE PIPE PENETRATION SEALING: (Fig. 5)

NOTE: Multiple pipe penetrations in close proximity may be most efficiently sealed using Drago Wrap, Drago Sealant, and Drago Sealant Form for ease of installation.

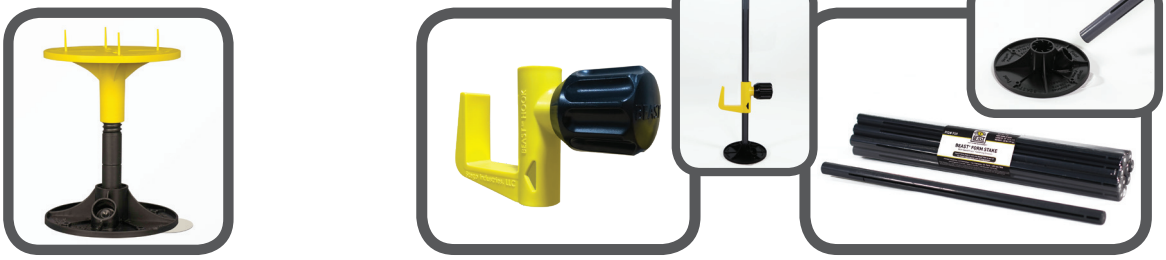
a. Cut a hole in Drago Wrap such that the membrane fits over and around the base of the pipes as closely as possible, ensuring that it is flush with the base of the penetrations.
b. Install Drago Sealant Form continuously around the entire perimeter of the group of penetrations and at least 1 inch beyond the terminating edge of Drago Wrap.
c. Pour Drago Sealant inside of Drago Sealant Form to create a seal around the penetrations.
d. If the void space between Drago Wrap and the penetrations is not minimized and/or the base course allows for too much drainage of sealant, a second coat of Drago Sealant may need to be poured after the first application has cured.

Fig. 5: MULTIPLE PIPE PENETRATION SEALING



BEAST® CONCRETE ACCESSORIES - VAPOR BARRIER SAFE

Stego Industries* recommends the use of BEAST vapor barrier-safe concrete accessories, to help eliminate the use of non-permanent penetrations in Drago Wrap installations.



BEAST® SCREED

Improve efficiency and maintain concrete floor levelness with the BEAST SCREED SYSTEM!

BEAST® HOOK

Locate it and lock it down!

BEAST® FORM STAKE

The Stego barrier-safe forming system that prevents punctures in the vapor barrier.

IMPORTANT: AN INSTALLATION COMPLETED PER THESE INSTRUCTIONS SHOULD CREATE A MONOLITHIC MEMBRANE BETWEEN ALL INTERIOR INTRUSION PATHWAYS AND VAPOR SOURCES BELOW THE SLAB AS WELL AS AT THE SLAB PERIMETER. THE UNDERLYING SUBBASE SHOULD NOT BE VISIBLE IN ANY AREA WHERE CONCRETE WILL BE PLACED. IF REQUIRED BY THE DESIGN ENGINEER, ADDITIONAL INSTALLATION VALIDATION CAN BE DONE THROUGH SMOKE TESTING.

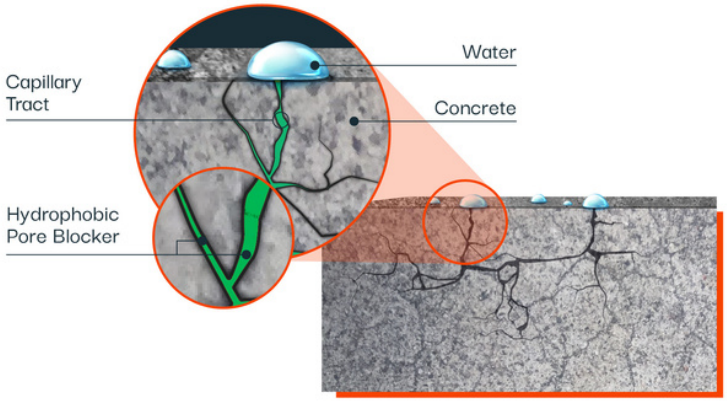
NOTE: While Drago Wrap installation instructions are based on ASTM E1643 - *Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs,* these instructions are meant to be used as a guide, and do not take into account specific job site situations. Consult local building codes and regulations along with the building owner or owner's representative before proceeding. If you have any questions regarding the above-mentioned installation instructions or products, please call us at 877-464-7834 for technical assistance. While Stego Industries' employees and representatives may provide technical assistance regarding the utility of a specific installation practice or Stego product, they are not authorized to make final design decisions.

Hycrete, Inc.
14 Spielman Road
Fairfield, NJ 07004
201.386.8110

DATA SHEET

Hycrete Endure WP

For Maximum Waterproofing Protection in Concrete Mixes



PRODUCT DESCRIPTION

Hycrete Endure WP (formerly W1000), Hycrete's patented flagship concrete waterproofing admixture, dramatically reduces water ingress through concrete. Ordinary concrete absorbs water and dissolved salts through its network of pores, leading to water infiltration and corrosion of steel reinforcement. Hycrete Endure WP reduces absorption to 1% or lower and forms a protective coating around steel reinforcement. Less water and fewer chlorides are able to penetrate the concrete and the reinforcement has enhanced protection from corrosion. Hycrete Endure WP delivers consistent and reliable performance and is easy to use. Hycrete Endure WP is an environmentally responsible, Cradle to Cradle™ certified product. Using Hycrete Endure WP allows owners and builders to have the comfort of knowing their investment /project remains secure against one of nature's most damaging elements ...water.

USES AND APPLICATIONS

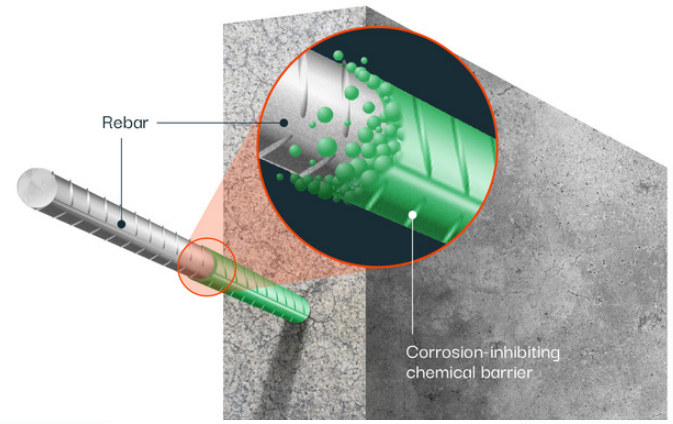
- Included in Hycrete360; see separate data sheet for Hycrete360.
- Extra protection for walls and slabs
- Above and below grade construction
- Water containment reservoirs
- Sewage and water treatment plants
- Secondary containment structures
- Underground vaults
- Tilt-up panel walls
- Pre-cast components
- Architectural water features and fountains
- Bridges, dams and highway infrastructure
- Aquatic centers, marinas and zoos
- Swimming pools

KEY BENEFITS

- Maximum waterproofing protection in concrete: less than 1% water absorption
- Corrosion protection; protective coating formed around steel reinforcement
- Neutral concrete set time performance, even in high fly ash and GGBS (slag) mixes
- Resists hydrostatic pressure
- Can heal cracks up to 0.4mm
- Consistent performance and verifiable dosage
- Easy to use; no additional labor required
- Safe to use

PRODUCT FEATURES

- Cradle to Cradle™ certified by MBDC
- NSF/ANSI 61 - approved for use in potable water tanks
- Compatible with standard admixture metering equipment
- ISO 14021 compliant - recycled content in accordance with Type II environmental labeling; applicable for LEED Materials and Resources Credit
  4.1/4.2 - Recycled Content



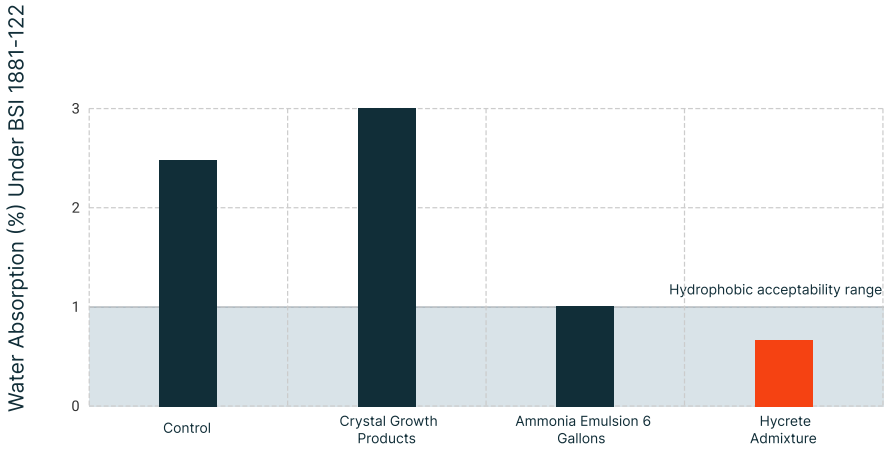
Hycrete, Inc.
14 Spielman Road
Fairfield, NJ 07004
201.386.8110

PRODUCT PERFORMANCE*

Water absorption	BSI 1881-122	Less than 1% absorption
Permeability/hydrostatic pressure	DIN 1048 BS EN 12390-8	Passes DIN 1048; up to 70% reduction in permeability
Crack healing	ASTM C597	Concrete with Hycrete fosters faster and 100% complete healing compared to untreated control
Set time	ASTM C403	Set neutral
Drying shrinkage	ASTM C157	Neutral to the control
Slump	ASTM C143	Neutral
Workability	N/A	Excellent
Effect on concrete color	N/A	None
Compressive strength	ASTM C39	Water/cement ratios may need to be lowered to account for possible, minor strength decreases associated with some materials. Perform trial mixes.
Potable water	NSF/ANSI 61	Approved for use in potable water tanks 50,000 gallons or greater and pipes 84" in diameter and greater
Adhesion	ASTM C1583, ASTM C1072, ASTM D3359	Neutral; no adverse effect on bond with concrete

*All benefits and results are based on actual test results. Results may vary according to concrete mix designs, Hycrete Endure WP dosage, or other factors.

WATERPROOFING PERFORMANCE



South Carolina independent Lab Testing: 40/60 Structural Mix, 0.40 W/C 611
Type I-II Cement Polycarboxylate Superplasticizer

Hycrete, Inc.
14 Spielman Road
Fairfield, NJ 07004
201.386.8110

GENERAL PROPERTIES AND CHARACTERISTICTS

Physical characteristics: Form: Liquid Specific gravity: 1.05 Chloride content: Nil pH: 8.5	**Compatibility:** • Most concrete admixtures • Most Portland cements or replacements including fly ash and GGBS (slag) • Shotcrete mixes and application • Most surface-applied sealants and external membrane protection systems
Recommended dosage: 1.0 U.S. gallon per cubic yard of concrete (5.0 liters per cubic meter)	
Usage guidelines: • Superplasticizer at the manufacturer's recommended rate and appropriate for the placement requirements of the project. • Cementitious Content: The cementitious content of concrete containing Hydrophobic Concrete Admixture will not be less than 550 lbs/yd3 (325 kg/m3) with up to 15% fly ash or 50% slag maximum. • Water-Cement Ratio: 0.42 maximum. Water content of Hydrophobic Concrete Admixture and other admixtures to be included in the water-to cementitious ratio.	
Packaging: 1 gallon bottles; 5 gallon pails; 55 gallon drums; 275 gallon totes; bulk tanker delivery	
Storage and handling: Store above 32°F (0°C) and below 120 °F (48 °C). Slight flocculation can occur over time due to pH reductions. Such flocculation does not affect product performance	

Notes

- For air-entrained concrete mixes speak to your local Hycrete Rep for proper mix design.
- User should perform trial mixes prior to placement and make necessary adjustments to the mix design as needed.
- If considering dosages other than recommended dosage contact Technical Services before use.

Safety

- Hycrete Endure WP (formerly W1000) is a water-based material and should not be swallowed or come into contact with skin or eyes. Wear suitable protective gloves and goggles. If material comes in contact with the skin, wash immediately with soap and water. In case of contact with eyes, rinse immediately with sufficient water and seek medical support. If swallowed, seek immediate medical attention. For further information please consult the Material Safety Data Sheet.

Related Documents

- Hycrete Mixing Instructions
- Hycrete Material Safety Data Sheet – Hycrete Endure WP
- For air-entrained concrete mixes speak to your local Hycrete Rep for proper mix design.

Hycrete, Inc.| 14 Spielman Rd | Fairfield, NJ 07004 USA | Phone: (+1) 201.386.8110 | Fax: (+1) 201.386.8155 | www.hycrete.com

1002002-DEC22

APPENDIX I
VAPOR BARRIER INSPECTION SUMMARY

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

RDH Building Science Inc.
2101 N 34th Street #150
Seattle, WA 98103

Making Buildings Better™

TO **Vulcan LLC**
C/O **Raymond Burdick**
EMAIL **RaymondB@vulcan.com**
Vulcan LLC
505 5th Avenue South, Suite 900
Seattle, WA 98104

R-20372.000
Block 38
Building Enclosure Consulting

DATE November 23, 2022

REGARDING **Completed Action Items**

Dear Mr. Burdick,

As requested, RDH Building Science Inc. is pleased to provide you this letter to confirm that all action items noted in our site visit reports (SVRs) have been addressed to the best of our knowledge, based on our observations in the field as well as correspondence with the GLY Construction team.

RDH's scope of work for this project included building enclosure design peer review of drawings and specifications. RDH also reviewed submittals and attended pre-construction meetings as requested, and periodically reviewed representative samples of construction for conformance with project documents. We provide this letter based on the conditions observed at the time and locations of our site visits, consistent with our role as a quality assurance observer of construction progress. Daily quality control during construction of this project was the responsibility of GLY Construction staff.

As is typical in construction, modifications to details and specified materials occurred and are documented through typical construction administration correspondence (RFI, ASI, Change Orders, and SVRs). A copy of our action list report noting that all items requiring action have been resolved is attached. We appreciate the opportunity to continue to be of service to Vulcan, look forward to working with you again in the future.

Yours truly,

Luke Betteridge | EIT
Building Science Consultant
lbetteridge@rdh.com
T 206-324-2272
RDH Building Science Inc.

Denali Jones | B.A.Sc., PE (WA)
Associate, Senior Project Manager

Encl. – Completed Action Item List

Report has been modified to remove documentation not related to installation of the Vapor Barrier; October 2023.

20372.000 2022 11 23 Completed Action Item List								
Item	Location		Action	Trade	Closed By:	Information Only Or Action Required	Date Closed	Closure Information
1.02	Waterproofing Assembly and Installation	Further to SVR Item 1.1, we reviewed the installation of the waterproofing and related components with GLY (Photo 1.2a). Inland is in the process of installing material at the northeast stairwell (GL: H/1-3, H-E/1). We observed the following: 1. Drainage mat is installed directly against the lagging wall down to elevation 20, where the water table is present (Photo 1.2b). Drainage mat sheets are lapped at edges, per Cetco requirements. 2. Drago Wrap vapor barrier membrane is installed against the drainage mat down to elevation 15 with seams heat welded together. We reviewed 10-linear feet of a seem and observed a hole in the vapor barrier between piles W36 and W35 (Photo 1.2c). Inland confirmed they will installed Drago tape over this hole, per manufacturer requirements. 3. Bentonite membrane is installed against the vapor barrier membrane and held in place with staples (Photo 1.2d). - Inland confirmed that washer-headed fasteners will be installed at 24-inches O.C., per Cetco requirements. We anticipate reviewing this installation during a subsequent visit. - Membrane sheets are staggered and shingle lapped, per Cetco requirements. - We measured membrane edge laps at 4 locations an observed the laps range from 7 to 5-inches, which is over the 4-inch lap Cetco requirement (Photo 1.2e). 4. Whalers are installed at this northwest corner and GLY confirmed that these will be removed prior to placing concrete to allow for the bentonite membrane to be patched. 5. Cement board is installed at against the piles before any drainage mat is installed, to protect all of the membranes when the piles are torched off (Photo 1.2f). The waterproofing installation is in progress, and thus far aligns with that shown in Submittal 071713-002-0.		GLY	GLY Construction Inc.	Action Required	6/18/2020	GLY provide photographs and confirmation of the completed repair.
3.01	Vapor Barrier Installation	RDH, GLY, and Inland reviewed the installation of the underslab and below grade wall vapor barrier, DragoWrap at the north, west, and east elevations, and under the north slab pour. Inland Confirmed that they have not yet performed their final QC of this area after the iron workers finished the lower rebar mat installation. With reference to ASI 023 and Submittal 071713-002-0 we observed the following (Photo 3.1a): 1. Vapor barrier seams are welded together, and we probed approximately 100-ft of seams at the north end of the under slab vapor barrier. We observed various locations where the seams are not fully welded (Photo 3.1b). We discussed that these locations need to be taped with Drago tape to meet manufacturer requirements. 2. We observed multiple punctures through the membrane which will need to be patched with Drago tape, per manufacturer requirements (Photo 3.1c).	Patch incomplete welds and punctures in the membrane with Drago tape. Provide confirmation this has been completed and representative photographs of these repairs to RDH.	GLY	GLY Construction Inc.	Action Required	7/16/2020	GLY provided photographs and documentation of the repairs made.
3.02	Vapor Barrier Penetration Detailing	Further to SVR Item 3.1, we reviewed the penetration detailing through the vapor barrier membrane. There are rebar and support angle penetrations through the vapor barrier membrane which are detailed with Drago Mastic (Photos 3.2a-b). We observed various locations where the mastic installation is not consistently installed around the penetrations (Photos 3.2c-d). Inland advised that all penetrations will be reviewed and additional mastic will be installed as needed, to meet manufacturer installation requirements. We also observed ganged conduits that penetrate the vapor barrier at the slab (Photo 3.2e). We anticipate Drago Sealant and Foam to be used to seal this ganged penetration, per manufacturer detailing.	Apply additional mastic where the installation of the mastic is not consistent. Provide confirmation this has been completed and representative photographs of these repairs to RDH.	GLY	GLY Construction Inc.	Action Required	7/16/2020	GLY provided photographs and documentation of the additionally added mastic.

3.03	Vapor Barrier Substrate	Further to SVR Item 3.1, at the above noted location we observed that a pile extends proud of the lagging wall creating a void at the pile to lagging transition behind the vapor barrier membrane. We probed and observed a 45° cant of EPS foam installed at this transition to provide backing, but the foam stops approximately 5-ft from the mud slab, creating a void behind the vapor barrier. GLY advised that spray foam will be installed at this location to provide backing for the vapor barrier through a hole in the membrane that would be patched.	GLY to provide confirmation and representative photographs of the added spray foam at this location to RDH.	GLY	GLY Construction Inc.	Action Required	7/16/2020	GLY provided photographs and documentation of the repairs made.
4.01	Underslab Vapor Barrier	RDH and GLY reviewed the installation of the underslab and below grade wall vapor barrier, DragoWrap at the west and east elevations, and under the south slab pour. Inland confirmed that they have not yet performed their final QC of this area after the iron workers finish the lower rebar mat installation. With reference to ASI 023 and Submittal 071713-002-0 we observed the following (Photo 4.1a): 1. Vapor barrier seams are welded together, and we probed approximately 75-ft of seams at the south end of the under slab vapor barrier (Photo 4.1b). We observed that the seams are consistently welded together. 2. We observed multiple punctures through the membrane which will need to be patched with Drago tape, per manufacturer requirements (Photo 4.1c). 3. Penetrations are detailed with Drago Mastic, per the above noted submittal (Photo 4.1d). We observed that the mastic is evenly applied around the penetrations reviewed. 4. At the tower crane footing, the DragoWrap is terminated at the top and bottom of the footing with a termination bar and Drago Mastic, per RFI 272 (Photo 4.1e).	GLY to patch punctures in the membrane with Drago tape. Provide confirmation this has been completed and representative photographs of these repairs to RDH.	GLY	GLY Construction Inc.	Action Required	7/22/2020	GLY provided confirmation and photos of patched Drego wrap with tape.
4.04	Waterstop Installation at Crane Footing	RDH and GLY reviewed the waterstop installation around the crane footing. No product packaging was on site during the visit, but GLY confirmed that Sika Swellstop is installed, per submittal 033006-001-0. We observed that waterstop is installed in two rows at side of the tower crane footing at the top and the bottom, per RFI 272 (Photo 4.4a). We were only able to access the northeast corner of the footing where we probed the waterstop and observed that it is adhered to the substrate and, where needed, further secured with washer headed fasteners per installation requirements (Photo 4.4b). We also visually observed one location on the south side of the footing where there is a 2-foot break in the waterstop where a section is not adhered (Photo 4.4c). GLY confirmed that this would be repaired.	Re-install waterstop where it is not adhered so that it is continuous. Provide confirmation and photographs to RDH of the repair.	GLY	GLY Construction Inc.	Action Required	7/22/2020	GLY provided confirmation and photographs of repaired waterstop
5.01	Underslab Vapor Barrier	RDH, GLY, and Inland (installers) reviewed the installation of the underslab vapor barrier, DragoWrap, at the above noted location at the south slab pour. Where the first bar has been laid over the vapor barrier Inland advised they have performed their final QC and where bar has not been laid they still need to perform their final GC. With reference to ASI 023 and Submittal 071713-002-0 we observed the following: We began by reviewing where reinforcement bar has been installed in Inland already performed their QC (GL A-H/11-12) (Photo 5.1a). 1. We probed approximately 25-ft of seams and observed consistent welds (Photo 5.1b). 2. Penetrations are detailed with Drago Mastic, per the above noted submittal (Photo 5.1c). We observed that the mastic is evenly applied around the penetrations reviewed. During the review of the area where the reinforcement bar is not yet placed we observed that the penetrations are detailed consistently with mastic and seams are fully welded, but we observed punctures through the membrane at various locations which will need to be patched with Drago tape, per manufacturer requirements (Photo 5.1d). Inland confirmed this will be completed during their final QC of this area.	GLY to patch punctures in the membrane with Drago tape. Provide confirmation this has been completed and representative photographs of these repairs to RDH.	GLY	GLY Construction Inc.	Action Required	9/8/2020	GLY provided photographs and confirmation of the completed repairs.

RDH Building Science Inc.
2101 N 34th Street #150
Seattle, WA 98103

Making Buildings Better™

004 SVR

CLIENT	**Vulcan Inc.**	PROJECT	**20372.000 Block 38 - Building Enclosure Consulting**
VISIT DATE	15 Jul, 2020		
WRITER	Luke Betteridge	REVIEWER	Denali Jones
TO	Sean Biehl (Vulcan)		
CC	Joe Worley (GLY); Karl Roesch (NBBJ)		
PURPOSE	To review the vapor barrier, water bar, and bentonite installation.		
WEATHER	76˚F, Sunny		
PRESENT	Joe Worley (GLY); Luke Betteridge (RDH)		

4.1 **LOCATION:** Underslab Vapor Barrier

TRADE: **FLOOR:** P4; **GRID LINE:** A-H/9-15;

GLY **COMMENTS:**

RDH and GLY reviewed the installation of the underslab and below grade wall vapor barrier, DragoWrap at the west and east elevations, and under the south slab pour. Inland confirmed that they have not yet performed their final QC of this area after the iron workers finish the lower rebar mat installation. With reference to ASI 023 and Submittal 071713-002-0 we observed the following (Photo 4.1a):

1. Vapor barrier seams are welded together, and we probed approximately 75-ft of seams at the south end of the under slab vapor barrier (Photo 4.1b). We observed that the seams are consistently welded together.

2. We observed multiple punctures through the membrane which will need to be patched with Drago tape, per manufacturer requirements (Photo 4.1c).

3. Penetrations are detailed with Drago Mastic, per the above noted submittal (Photo 4.1d). We observed that the mastic is evenly applied around the penetrations reviewed.

4. At the tower crane footing, the DragoWrap is terminated at the top and bottom of the footing with a termination bar and Drago Mastic, per RFI 272 (Photo 4.1e).

ACTION REQUIRED:

GLY to patch punctures in the membrane with Drago tape. Provide confirmation this has been completed and representative photographs of these repairs to RDH.

Photo 4.1a

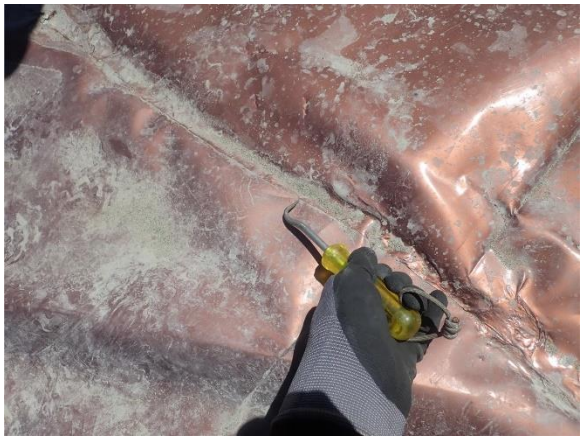


Photo 4.1b

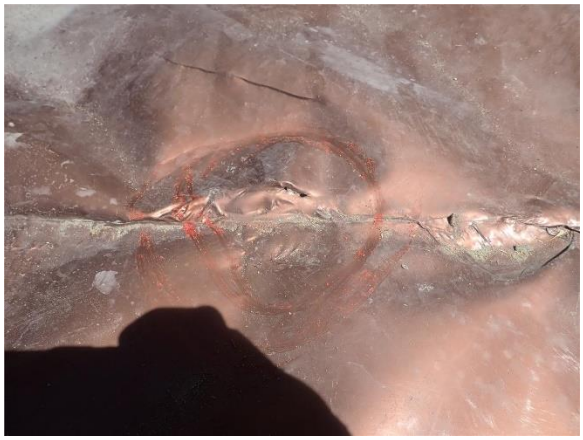


Photo 4.1c

Photo 4.1d

Photo 4.1e

4.2 **LOCATION:** Bentonite Waterproofing Installation

TRADE: **FLOOR:** Various; **ELEVATION:** East, South, West; **GRID LINE:** H/13-15, D-F/15, A/8-10;

COMMENTS:

We reviewed the Bentonite installation at the above noted locations. We observed the following:

1. The bentonite installed at the above noted grid-lines aligns with the shop drawing extents provided in submittal 071713-003-0.

2. Bentonite membrane side labs are measured at 4 locations and are 7 and 9-inches, which meet the Cetco 4-inch lap requirement for cast-in-place walls and the 6-inch requirement for shotcrete walls (Photo 4.2a). All levels are anticipated to be cast-in-place except for P1 which is to be shotcrete.

3. Washer headed fasteners are installed at 20 to 24-inches O.C at membrane seams and within the field of the membrane, which meets the Cetco 24-inch fastening requirement (Photo 4.2b).

INFORMATION ONLY:

Photo 4.2a

Photo 4.2b

4.3 **LOCATION:** Water Bar Installation

TRADE: **FLOOR:** P4; **ELEVATION:** South;

COMMENTS:

We reviewed the water bar installation at the anticipated cold joints within the slab and at slab to wall transitions. With reference to submittal 033006-001-0 and we observed the following:

1. The water bar is secured to lagging and the rat slab with fasteners installed within the outer edge of the membrane over constant substrate, per Sika requirements (Photo 4.3a).

2. Water bar seams are welded together with the profiles aligned with no burning or blistering, per Sika welding requirements.

3. Where bentonite membrane is installed at cold joints the water bar terminates at the edge of the bentonite membrane, per RFI 285 (Photo 4.3b).

INFORMATION ONLY:

Photo 4.3a

Photo 4.3b

4.4 **LOCATION:** Waterstop Installation at Crane Footing

TRADE: **FLOOR:** P4;

GLY **COMMENTS:**

RDH and GLY reviewed the waterstop installation around the crane footing. No product packaging was on site during the visit, but GLY confirmed that Sika Swellstop is installed, per submittal 033006-001-0. We observed that waterstop is installed in two rows at side of the tower crane footing at the top and the bottom, per RFI 272 (Photo 4.4a).

We were only able to access the northeast corner of the footing where we probed the waterstop and observed that it is adhered to the substrate and, where needed, further secured with washer headed fasteners per installation requirements (Photo 4.4b). We also visually observed one location on the south side of the footing where there is a 2-foot break in the waterstop where a section is not adhered (Photo 4.4c). GLY confirmed that this would be repaired.

ACTION REQUIRED:

Re-install waterstop where it is not adhered so that it is continuous. Provide confirmation and photographs to RDH of the repair.

Photo 4.4a

Photo 4.4b

Photo 4.4c

Luke Betteridge | EIT
Building Science Engineer (EIT)
lbetteridge@rdh.com

RDH Building Science Inc.
2101 N 34th Street #150
Seattle, WA 98103

Making Buildings Better™

REGARDING **ACTION LIST**

PROJECT **20372.000**
Block 38 - Building Enclosure Consulting

COMPANY **GLY Construction Inc.**

DATE 07/21/2020

AL

4.1 **LOCATION:** Underslab Vapor Barrier **VISIT DATE:** 07/15/2020

☐ Signed off

Signoff Date:

Signoff By:

FLOOR: P4; **GRID LINE:** A-H/9-15;

RDH and GLY reviewed the installation of the underslab and below grade wall vapor barrier, DragoWrap at the west and east elevations, and under the south slab pour. Inland confirmed that they have not yet performed their final QC of this area after the iron workers finish the lower rebar mat installation. With reference to ASI 023 and Submittal 071713-002-0 we observed the following (Photo 4.1a):

1. Vapor barrier seams are welded together, and we probed approximately 75-ft of seams at the south end of the under slab vapor barrier (Photo 4.1b). We observed that the seams are consistently welded together.

2. We observed multiple punctures through the membrane which will need to be patched with Drago tape, per manufacturer requirements (Photo 4.1c).

3. Penetrations are detailed with Drago Mastic, per the above noted submittal (Photo 4.1d). We observed that the mastic is evenly applied around the penetrations reviewed.

4. At the tower crane footing, the DragoWrap is terminated at the top and bottom of the footing with a termination bar and Drago Mastic, per RFI 272 (Photo 4.1e).

Action Required

GLY to patch punctures in the membrane with Drago tape. Provide confirmation this has been completed and representative photographs of these repairs to RDH.

Signoff Comments:

Photo 4.1a

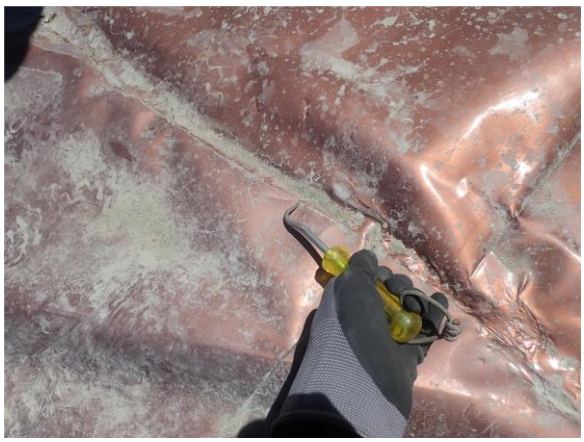


Photo 4.1b

Photo 4.1c

Photo 4.1d

Photo 4.1e

4.4 **LOCATION:** Waterstop Installation at Crane Footing **VISIT DATE:** 07/15/2020

☐ Signed off

Signoff Date:

Signoff By:

FLOOR: P4;

RDH and GLY reviewed the waterstop installation around the crane footing. No product packaging was on site during the visit, but GLY confirmed that Sika Swellstop is installed, per submittal 033006-001-0. We observed that waterstop is installed in two rows at side of the tower crane footing at the top and the bottom, per RFI 272 (Photo 4.4a).

We were only able to access the northeast corner of the footing where we probed the waterstop and observed that it is adhered to the substrate and, where needed, further secured with washer headed fasteners per installation requirements (Photo 4.4b). We also visually observed one location on the south side of the footing where there is a 2-foot break in the waterstop where a section is not adhered (Photo 4.4c). GLY confirmed that this would be repaired.

Action Required

Re-install waterstop where it is not adhered so that it is continuous. Provide confirmation and photographs to RDH of the repair.

Signoff Comments:

Photo 4.4a

Photo 4.4b

Photo 4.4c

RDH Building Science Inc.
2101 N 34th Street #150
Seattle, WA 98103

Making Buildings Better™

005 SVR

CLIENT	**Vulcan Inc.**	PROJECT	**20372.000**
VISIT DATE	30 Jul, 2020		**Block 38 - Building Enclosure Consulting**
WRITER	Luke Betteridge	REVIEWER	Denali Jones
TO	Sean Biehl (Vulcan)		
CC	Joe Worley (GLY); Karl Roesch (NBBJ)		
PURPOSE	To review the vapor barrier, bentonite membrane, and waterstop installation.		
WEATHER	69°F, Sunny		
PRESENT	Joe Worley (GLY); Luke Betteridge (RDH)		

5.1 **LOCATION:** Underslab Vapor Barrier

TRADE: **FLOOR:** P4; **GRID LINE:** A-H/11-14;

GLY **COMMENTS:**

RDH, GLY, and Inland (installers) reviewed the installation of the underslab vapor barrier, DragoWrap, at the above noted location at the south slab pour. Where the first bar has been laid over the vapor barrier Inland advised they have performed their final QC and where bar has not been laid they still need to perform their final GC. With reference to ASI 023 and Submittal 071713-002-0 we observed the following:

We began by reviewing where reinforcement bar has been installed in Inland already performed their QC (GL A-H/11-12) (Photo 5.1a).

1. We probed approximately 25-ft of seams and observed consistent welds (Photo 5.1b).

2. Penetrations are detailed with Drago Mastic, per the above noted submittal (Photo 5.1c). We observed that the mastic is evenly applied around the penetrations reviewed.

During the review of the area where the reinforcement bar is not yet placed we observed that the penetrations are detailed consistently with mastic and seams are fully welded, but we observed punctures through the membrane at various locations which will need to be patched with Drago tape, per manufacturer requirements (Photo 5.1d). Inland confirmed this will be completed during their final QC of this area.

ACTION REQUIRED:

GLY to patch punctures in the membrane with Drago tape. Provide confirmation this has been completed and representative photographs of these repairs to RDH.

Photo 5.1a

Photo 5.1b

Photo 5.1c

Photo 5.1d

5.2 **LOCATION:** Bentonite Waterproofing Installation

TRADE: **FLOOR:** Various; **ELEVATION:** West and North;

GLY **COMMENTS:**

We reviewed the Bentonite installation at the above noted locations. With reference to submittal 071713-001-0 we observed the following:

1. Bentonite membrane side labs are measured at 2 locations and are 8 and 9-inches, which meet the Cetco 4-inch lap requirement for cast-in-place walls and the 6-inch requirement for shotcrete walls (Photo 5.2a). All levels are anticipated to be cast-in-place except for P1 which is to be shotcrete.

2. Washer headed fasteners are installed at 19 to 22-inches O.C at membrane seams and within the field of the membrane, which meets the Cetco 24-inch fastening requirement (Photo 5.2b).

3. Drain gates are installed through the bentonite membrane at the anticipated water line per the above noted submittal (Photo 5.2c). These are detailed with Bentoseal mastic and we could feel a target patch of the bentonite membrane installed around the penetration underneath the field sheet.

4. At locations where water bar was previously installed over the bentonite membrane mastic is installed over the fastener penetration holes (Photo 5.2d).

5. At the north elevation we observed two tears in the bentonite membrane (Photo 5.2c). The installers confirmed that a bentonite patch will be installed over these tears with the edges detailed with mastic, per Cetco patching requirements.

ACTION REQUIRED:

GLY to patch the bentonite tears with a bentonite patch with the edges detailed with mastic. Provide confirmation and photographs of the repair to RDH.

Photo 5.2a

Photo 5.2b

Photo 5.2c

Photo 5.2d

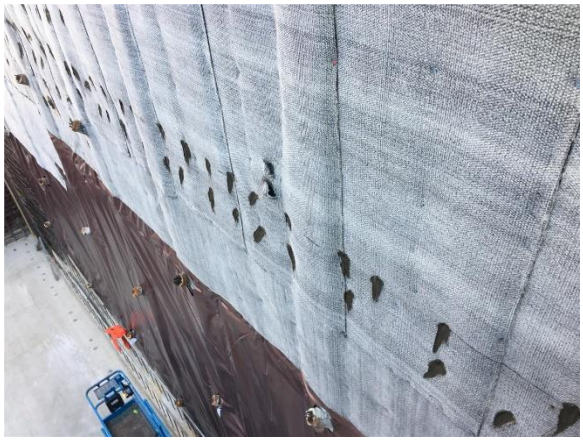


Photo 5.2e

5.3 **LOCATION:** Cold Joint Waterstop Installation

TRADE: **FLOOR:** P4; **ELEVATION:** West; **GRID LINE:** A/1-4;

COMMENTS:

We reviewed the waterstop installation at the slab to wall cold joint, at the above noted location. With reference to Submittal 033006-001-0, we observed the following:

1. Packaging is observed onsite for Sika Swellstop and Swellstop II per the above noted submittal (Photo 5.3a).

2. Two rows of waterstop are installed of Swellstop I and II. There is a minimum cover of 4.5-inches on each side of the rows of waterstop, which is over Sika's minimum 2-inch cover requirement (Photos 5.3b-c).

3. 3M Hi-strength 90 spray adhesive is used to secure the waterstop to the concrete. We proved approximately 10 linear feet of the installed waterstop and observed that it is adhered to the substrate (Photo 5.3d).

4. Waterstop ends are cut at 45˚angles and butted together, per manufacturer requirements (Photo 5.3e).

INFORMATION ONLY:

Photo 5.3a

Photo 5.3b

Photo 5.3c

Photo 5.3d

Photo 5.3e

Luke Betteridge | EIT
Building Science Engineer (EIT)
lbetteridge@rdh.com

PlanGrid Task Report - Aug 6, 2020

Prepared by Joe Worley

Aug 6, 2020

Description

Closed RDH Action Items 5.1 and 5.2.

Contents

#22 Inland

Status
Closed

Type
Issue

Location
South Mat

List
RDH Site Report

Description
RDH SVR # 005 item 5.1

20200730: patch punctures in vapor barrier.

20200803: vapor barrier punctures patched

Assignees
joe.worley@gly.com

Watchers
joe.worley@gly.com

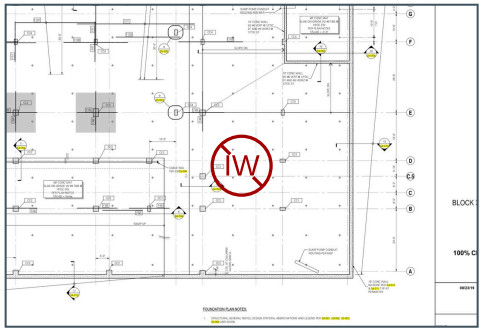
Start Date
Jul 30, 2020

Created
Aug 6, 2020 8:18 AM
joe.worley@gly.com

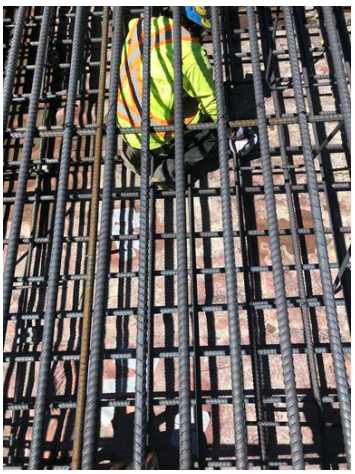
Last Updated
Aug 6, 2020 8:31 AM

Closed At
Aug 6, 2020

Sheet
S1-002



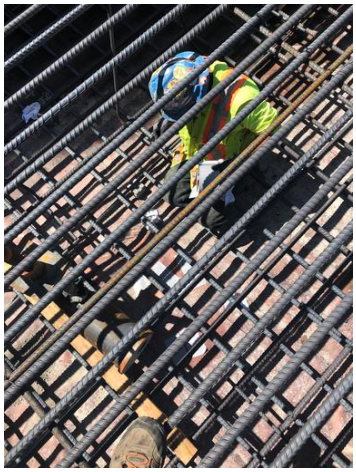
Photos



IMG_2469
Joe Worley
Aug 3, 2020 12:13 PM

IMG_2468
Joe Worley
Aug 3, 2020 12:12 PM

IMG_2467
Joe Worley
Aug 3, 2020 12:12 PM



IMG_2465
Joe Worley
Aug 3, 2020 12:12 PM

#21 Inland

Status
Closed

Type
Issue

Location
North Mat

List
RDH Site Report

Description
RDH SVR # 005 Item 5.2

20200730: patch tears in bentonite

20200803: tears in vapor barrier patched

Assignees
joe.worley@gly.com

Watchers
joe.worley@gly.com

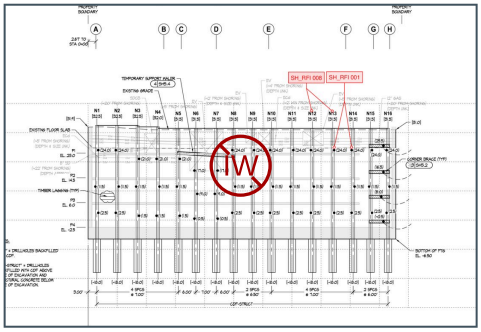
Start Date
Jul 30, 2020

Created
Aug 6, 2020 7:59 AM
joe.worley@gly.com

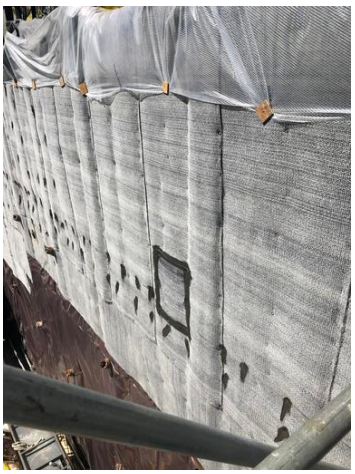
Last Updated
Aug 6, 2020 8:31 AM

Closed At
Aug 6, 2020

Sheet
SH3.0



Photos



IMG_2471
Joe Worley
Aug 3, 2020 2:21 PM

APPENDIX J
SOIL DISPOSAL TONNAGE SUMMARY

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Table 1
Soil Disposal Summary
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

	Disposal Facility					
	Iron Mountain	**Iron Mountain**	**Cadman**	**Cadman**	**Waste Management**	**Republic Services**
Date Range:	**Class 1** (tons)	**Class 2** (tons)	**Class 2** (tons)	**Class 3** (tons)	**Class 3** (tons)	**Class 3+** (tons)
11/21/2019 -- 01/24/2020	0	0	0	0	0	6,546.43
01/27/2020 -- 01/31/2020	0	0	0	0	0	751.48
02/03/2020 -- 02/07/2020	0	0	0	0	0	1,751.11
02/10/2020 -- 02/14/2020	0	0	0	0	0	1,676.68
02/17/2020 -- 02/21/2020	0	0	0	0	4,795.75	3,445.35
02/24/2020 -- 02/28/2020	0	0	260.19	0	4,854.57	5,079.17
03/02/2020 -- 03/06/2020	0	0	2,939.29	2,749.26	2,630.71	2,181.14
03/09/2020 -- 03/13/2020	0	0	5,210.13	805.50	100.89	0
03/16/2020 -- 03/18/2020	0	0	681.24	0	1,207.32	943.20
03/19/2020 -- 03/20/2020	3,428.70	0	342.58	0	139.92	422.31
03/23/2020 -- 03/27/2020	0	869.49	1,365.45	0	0	81.17
04/20/2020 -- 04/24/2020	1,097.08	0	4,063.13	0	0	0
04/27/2020 -- 05/01/2020	0	0	1,617.54	0	1,111.40	1,697.82
05/18/2020 -- 05/22/2020	5,168.91	0	3,073.23	0	0	438.90
05/26/2020 -- 05/29/2020	5,373.81	0	0	0	54.28	237.50
06/01/2020 -- 06/05/2020	1,656.51	0	0	0	0	0
06/08/2020 -- 06/13/2020	3,846.61	0	0	0	0	0
06/15/2020 -- 06/19/2020	0	0	0	0	0	0
06/22/2020 -- 06/26/2020	2,743.60	0	27.49	0	0	0
06/29/2020 -- 07/02/2020	383.67	0	0	0	0	0
07/06/2020 -- 07/10/2020	1,058.24	0	0	0	0	0
Totals Through:	7/9/2020	7/9/2020	7/9/2020	7/9/2020	7/9/2020	7/9/2020
Truck Count	859	30	668	119	547	897
Total (tons)	**24,757.13**	**869.49**	**19,580.27**	**3,554.76**	**14,894.84**	**25,252.26**

Total Class 1 Soil (tons)	**24,757.13**
Total Class 2 Soil (tons)	**20,449.76**
Total Class 3 & 3+ Soil (tons)	**43,701.86**
Total Impacted Soil; Class 2, 3, & 3+ Soil (tons)	**64,151.62**

APPENDIX K
TREATMENT MEDIA DISPOSAL SUMMARY

INTERIM ACTION REPORT
Block 38 West Site
500 Through 536 Westlake Avenue North
Seattle, Washington

Farallon PN: 397-019

Dewatering System Spent Media Disposal Table
Block 38 West Property
Seattle, Washington
Farallon PN: 397-019

Description	Date Exported Offsite	Quantity	Waste Designation	Waste Profile Number	Waste Manifest	Receiving Facility	Date Received	Scale Weight (tons)
Vapor Phase Media Treatment								
Spent Carbon Media	7/13/2020	4 supersacks	Hazardous Waste	OR344667	019236415JJK	Columbia Ridge Landfill	8/7/2020	3.60
Spent Carbon Media	7/22/2020	5 supersacks	Hazardous Waste	OR344667	019923275JJK	Columbia Ridge Landfill	9/30/2020	4.25
Spent Potassium Permanganate	7/22/2020	5 supersacks	Hazardous Waste	OR344906	019236419JJK	Columbia Ridge Landfill	9/30/2020	4.25
Spent Carbon Media	9/2/2020	6 supersacks	Hazardous Waste	OR344667	019236457JJK	Columbia Ridge Landfill	9/24/2020	6.00
Spent Carbon Media	10/13/2020	5 supersacks	Hazardous Waste	OR344667	019234504 JJK	Columbia Ridge Landfill	11/9/2020	3.75
Spent Carbon Media	1/12/2021	10 supersacks	Hazardous Waste	OR344667	019236470JJK	Columbia Ridge Landfill	1/28/2021	9.00
Spent Potassium Permanganate	1/12/2021	5 supersacks	Hazardous Waste	OR344906	019236470JJK	Columbia Ridge Landfill	1/28/2021	4.50
Spent Carbon Media	3/23/2021	1 supersack	Hazardous Waste	OR344667	019234592JJK	Columbia Ridge Landfill	4/12/2021	0.13
Spent Potassium Permanganate	3/23/2021	1 supersack	Hazardous Waste	OR344906	019234592JJK	Columbia Ridge Landfill	4/12/2021	0.50
Total Treatment Media Disposed of as Hazardous Waste								**35.98**
Liquid Phase Media Treatment								
Spent Carbon Media	7/13/2020	10 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	7/18/2020	7.87
Spent Carbon Media	7/22/2020	6 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	8/6/2020	4.12
Spent Carbon Media	9/2/2020	10 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	9/4/2020	7.02
Spent Carbon Media	10/28/2020	11 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	11/12/2020	9.64
Spent Carbon Media	11/10/2020	15 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	11/12/2020	13.5
Spent Carbon Media	1/12/2021	4 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	1/16/2021	3.6
Spent Carbon Media	3/23/2021	12 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	3/31/2021	11.34
Spent Carbon Media	4/27/2021	26 supersacks	Non-Hazardous	115187WA	N/A	Columbia Ridge Landfill	4/28/2021 and 5/4/2021	22.49
Spent Carbon Media, Electrocoagulation Line	8/13/2021	4 supersacks	Non-Hazardous	OR347587	N/A	Columbia Ridge Landfill	--	3.75

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR 97812
Ph: (541) 454-2643

Reprint
Ticket# 31068

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	08/07/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	477326	Driver	
Hauling Ticket#	ESP	Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236415JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound	Gross	7200 lb*
In	08/07/2020 10:34:28	MANUAL WT	nfletche		Tare	
Out	08/07/2020 10:34:28		nfletche		Net	7200 lb
			* Manual Weight		Tons	3.60

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA DRM-Each CY S	100	4.00	Each	221.00	108.00	$884.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$234.68	WA-SEATTLE
3	MFE-e-Manifest (La	100	1.00	Each	25.00		$25.00	WA-SEATTLE
4	TRANS EA TOTE-TRAN	100	4.00	Each	108.00		$432.00	WA-SEATTLE

Total Tax	$108.00
Total Ticket	$1683.68

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR 97812
Ph: (541) 454-2643

Reprint
Ticket# 30947

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	07/31/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	477326	Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236415JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound	
In	07/31/2020 14:10:18	MANUAL WT	pslider1		Gross
Out	07/31/2020 14:10:18		pslider1		Tare
					Net
					Tons

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	MANIFEST TRACKING-	100	1.00	Each	0.00			

Total Tax
Total Ticket

Driver`s Signature

Please print or type. 477326 ESP CWMI

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAH000050132
2. Page 1 of: 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 019236415 JJK

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3077,HAZARDOUS WASTE,SOLID,N.O.S. (CARBON),9,PGIII OR344667	4	BA	7,200	P	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.OR344667-LF04
970909
WMKU - 970701 PR

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL
Signature:
Month Day Year: 7 13 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PEELMAN
Signature:
Month Day Year: 7 13 20

Transporter 2 Printed/Typed Name: G Althheimer
Signature: GA
Month Day Year: 7 16 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H132			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month Day Year: 7 27 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**

BMS

Please print or type. 477326 ESP CWMI

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAH000050132

22. Page 2 of 2

23. Manifest Tracking Number: 019236415JJK

24. Generator's Name: CITY INVESTORS IX L.L.C.

25. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

GENERATOR

32. Special Handling Instructions and Additional Information

3 WMW 970909 WMW - 970909

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month 7 Day 21 Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams — Signature — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 32565

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	09/30/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	477450-2	Driver	
Hauling Ticket#	ESP	Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019923275JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound	Gross	8500 lb*
In	09/30/2020 11:18:07	MANUAL WT	nfletche		Tare	
Out	09/30/2020 11:18:07		nfletche		Net	8500 lb
			* Manual Weight		Tons	4.25

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA DRM-Each CY S	100	5.00	Each	221.00	127.50	$1105.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$287.88	WA-SEATTLE
3	TRANS EA TOTE-TRAN	100	5.00	Each	108.00		$540.00	WA-SEATTLE

Total Tax	$127.50
Total Ticket	$2060.38

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 32564

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	09/30/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	477450-1	Driver	
Hauling Ticket#	ESP	Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236419JJK		
Destination		Grid	
PO	397-019		
Profile	OR344906 (INC14-AIR TREATMENT MEDIA - KM)		
Generator	168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT		

	Time	Scale	Operator	Inbound	Gross	8500 lb*
In	09/30/2020 11:11:50	MANUAL WT	nfletche		Tare	
Out	09/30/2020 11:11:50		nfletche		Net	8500 lb
			* Manual Weight		Tons	4.25

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA Outb-Each CY	100	5.00	Each	2890.00		$14450.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$2627.63	WA-SEATTLE
3	TEN DAY SEA-TEN DA	100	5.00	Each	108.00		$540.00	WA-SEATTLE
4	MFE-e-Manifest (La	100	1.00	Each	25.00		$25.00	

Total Tax	
Total Ticket	$17642.63

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 32233

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	09/17/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	477450	Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236419JJK		
Destination		Grid	
PO	397-019		
Profile	OR344906 (INC14-AIR TREATMENT MEDIA - KM)		
Generator	168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT		

	Time	Scale	Operator	Inbound	
In	09/17/2020 08:26:37	MANUAL WT	pslider1		Gross
Out	09/17/2020 08:26:37		pslider1		Tare
					Net
					Tons

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	MANIFEST TRACKING-	100	1.00	Each	0.00			

Total Tax
Total Ticket

Driver`s Signature

CWMI

ESP

477450

Form Approved. OMB No. 2050-0039

Please print or type.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAH000050132
2. Page 1 of: 2
3. Emergency Response Phone: (800)424-9300
4. Manifest Tracking Number: 019236419 JJK

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
607 TERRY AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1490,WASTE POTASSIUM PERMANGANATE,5.1,PGII OR344906	5	BA	8,500	P	D003		
X	2. NA3077,HAZARDOUS WASTE,SOLID,N.O.S. (CARBON),9,PGIII OR344667	5	BA	8,500	P	F002		
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.OR344906-LF04
2.OR344667-LF04

WMXY 980303

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL
Signature:
Month: 07 Day: 22 Year: 20

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible]
Signature:
Month: 7 Day: 22 Year: 20

Transporter 2 Printed/Typed Name: GAltheimer
Signature: GA
Month: 7 Day: 27 Year: 20

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H132		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Dawn Dunlop
Signature:
Month: 8 Day: 4 Year: 20

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

BMS

CWMI

Please print or type. 477450 ESP

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page 2 of 2	23. Manifest Tracking Number
	WAH000050132		019236419JJK

24. Generator's Name: CITY INVESTORS IX LLC

25. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

GENERATOR

32. Special Handling Instructions and Additional Information

3 WMNCU 980303

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month 7 Day 30 Year 20

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: Jennifer Williams | Signature | Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 32378

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	09/24/2020	Vehicle#	RAIL
Payment Type	Credit Account	Container	
CWM Load#	478008	Driver	
Hauling Ticket#	ESP	Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236457JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound		
In	09/24/2020 10:43:29	MANUAL WT	nfletche		Gross	12001 lb*
Out	09/24/2020 10:43:29		nfletche		Tare	
			* Manual Weight		Net	12001 lb
					Tons	6.00

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA DRM-Each CY S	100	6.00	Each	221.00	180.00	$1326.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$349.83	WA-SEATTLE
3	MFE-e-Manifest (La	100	1.00	Each	25.00		$25.00	WA-SEATTLE
4	TRANS EA TOTE-TRAN	100	6.00	Each	108.00		$648.00	WA-SEATTLE

Total Tax	$180.00
Total Ticket	$2528.83

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 32902

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	10/12/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	478008	Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236457JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound	
In	10/12/2020 09:02:34	MANUAL WT	pslider1		Gross
Out	10/12/2020 09:02:34		pslider1		Tare
					Net
					Tons

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	MANIFEST TRACKING-	100	1.00	Each	0.00			

Total Tax
Total Ticket

Driver`s Signature

CWMI

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAH000050132	2	(800)424-9300	019236457 JJK

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. NA3077,HAZARDOUS WASTE,SOLID,N.O.S. (CARBON),9,PGIII OR344667	6	~~DM~~ CF	12,000	P	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.OR344667-LF04

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: JEAN BLEHL — Signature — Month: 9 Day: 2 Year: 2020

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PETE LAURAT — Signature — Month: 9 Day: 2 Year: 20
Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name — Signature — Month — Day — Year

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 33901

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	11/09/2020	Vehicle#	RAIL
Payment Type	Credit Account	Container	
CWM Load#	478692	Driver	
Hauling Ticket#	ESP	Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019234504JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound	Gross	7501 lb*
In	11/09/2020 17:08:04	MANUAL WT	tlane		Tare	
Out	11/09/2020 17:08:04		tlane		Net	7501 lb
			* Manual Weight		Tons	3.75

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA DRM-Each CY S	100	5.00	Each	221.00	112.50	$1105.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$292.25	WA-SEATTLE
3	MFE-e-Manifest (La	100	1.00	Each	25.00		$25.00	WA-SEATTLE
4	TRANS EA TOTE-TRAN	100	5.00	Each	108.00		$540.00	WA-SEATTLE

Total Tax	$112.50
Total Ticket	$2074.75

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 34651

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	12/01/2020	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	478692	Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019234504JJK		
Destination		Grid	
PO	397-019		
Profile	OR344667 (LF04-AIR TREATMENT MEDIA - CARBON)		
Generator	168-CITY INVESTORS IX LLC CITY INVESTORS IX LLC 500-536 WESTLAKE AVENUE NORT		

	Time	Scale	Operator	Inbound	
In	12/01/2020 09:10:28	MANUAL WT	pslider1		Gross
Out	12/01/2020 09:10:28		pslider1		Tare
					Net
					Tons

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	MANIFEST TRACKING-	100	1.00	Each	0.00			

Total Tax
Total Ticket

Driver`s Signature

CWMI

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAH000050132	2	(800)424-9300	019234504 JJK

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2814

Generator's Site Address (if different than mailing address)
870 TERRY AVE NORTH
SEATTLE, WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number
ORD080452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number
NED991792949

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
U.S. EPA ID Number
ORD089452353
Facility's Phone: 541-454-2843

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3077,HAZARDOUS WASTE,SOLID,N.O.S. (CARBON),9,PGIII OR344667	5	BA	7,500	P	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.OR344667-LF04

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SEAN FRIEL
Signature:
Month: 10 Day: 13 Year: 20

TRANSPORTER INTL

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PAT LAMPA
Signature:
Month: 10 Day: 13 Year: 20

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month: Day: Year:

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 36268

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 01/28/2021
Payment Type Credit Account
CWM Load# 479845-1
Hauling Ticket# ESP
Route
State Waste Code
Manifest 019236470JJK
Destination
PO 397-019
Profile OR344906 (INC14-AIR TREATMENT MEDIA - KM)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier CRL Columbia Ridge Landfill
Vehicle# RAIL
Container
Driver
Check#
Billing # 0000888
Gen EPA ID
Grid
Volume

	Time	Scale	Operator	Inbound	Gross	9001 lb*
In	01/28/2021 07:45:40	MANUAL WT	nfletche		Tare	
Out	01/28/2021 07:45:40		nfletche		Net	9001 lb
			* Manual Weight		Tons	4.50

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA Outb-Each CY	100	5.00	Each	2890.00		$14450.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$2627.63	WA-SEATTLE
3	MFE-e-Manifest (La	100	1.00	Each	25.00		$25.00	WA-SEATTLE
4	TEN DAY SEA-TEN DA	100	5.00	Each	108.00		$540.00	WA-SEATTLE

Total Tax
Total Ticket $17642.63

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 36706

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	02/08/2021	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	479845	Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019236470JJK		
Destination		Grid	
PO	397-019		
Profile	OR344906 (INC14-AIR TREATMENT MEDIA - KM)		
Generator	168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT		

	Time	Scale	Operator	Inbound	
In	02/08/2021 14:08:33	MANUAL WT	pslider1		Gross
Out	02/08/2021 14:08:33		pslider1		Tare
					Net
					Tons

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	MANIFEST TRACKING-	100	1.00	Each	0.00			

Total Tax
Total Ticket

Driver`s Signature

1/15

CWMI

Please print or type. 479845 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
WAH000050132	2	(800)424-9300	019236470 JJK

GENERATOR

5. Generator's Name and ~~Mailing~~ Address: CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Site per S. Beal/Vulcan 9m 1-8-21 9m 2-9-21

Generator's ~~Site~~ Address (if different than mailing address): 670 TERRY AVENUE NORTH
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643 — U.S. EPA ID Number: ORD089452353

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1490,WASTE POTASSIUM PERMANGANATE,5.1,PGII OR344906	5	BA	9,000	P	D003		
X	2. NA3077,HAZARDOUS WASTE,SOLID,N.O.S. (CARBON),9,PGIII OR344667	10	BA	18,000	P	F002		
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.OR344906-INC14
2.OR344667-LF04
WMXU 970980

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL — Signature: [signature] — Month 1 Day 12 Year 2021

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PETE LAVRAD — Signature: [signature] — Month 1 Day 12 Year 21

Transporter 2 Printed/Typed Name: G Altheimer — Signature: [signature] — Month 1 Day 12 Year 21

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040	H132		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Dawn Dunlop — Signature: [signature] — Month 1 Day 12 Year 21

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. **DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM**

MK

CWMI

Please print or type. 479845

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAH000050132

22. Page 2 of 2

23. Manifest Tracking Number: 019236470JJK

24. Generator's Name: CITY INVESTORS IX LLC

25. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

GENERATOR

32. Special Handling Instructions and Additional Information

3

WMXU 970980

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Sarah Mastriona — Signature: Sarah Mastriona — Month 11 Day 18 Year 21

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 38803

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	04/12/2021	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	481106-1	Driver	
Hauling Ticket#	ESP	Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019234592JJK		
Destination		Grid	
PO	397-019		
Profile	OR344906 (INC14-AIR TREATMENT MEDIA - KM)		
Generator	168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT		

	Time	Scale	Operator	Inbound		
In	04/12/2021 07:21:00	MANUAL WT	nfletche		Gross	501 lb*
Out	04/12/2021 07:21:00		nfletche		Tare	1 lb*
			* Manual Weight		Net	500 lb
					Tons	0.25

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	RCRA Outb-Each CY	100	1.00	Each	2890.00		$2890.00	WA-SEATTLE
2	EVF-P-Standard Env	100		%	17.50		$529.03	WA-SEATTLE
3	MFE-e-Manifest (La	100	1.00	Each	25.00		$25.00	WA-SEATTLE
4	TEN DAY SEA-TEN DA	100	1.00	Each	108.00		$108.00	WA-SEATTLE

Total Tax	
Total Ticket	$3552.03

Driver`s Signature

Chemical Waste Management of the NorthWest
17629 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2643

Reprint
Ticket# 38742

Customer Name	CITY INVESTORS IX LLC CITY IN	Carrier	CRL Columbia Ridge Landfill
Ticket Date	04/09/2021	Vehicle#	RAIL Volume
Payment Type	Credit Account	Container	
CWM Load#	481106	Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000888
State Waste Code		Gen EPA ID	
Manifest	019234592JJK		
Destination		Grid	
PO	397-019		
Profile	OR344906 (INC14-AIR TREATMENT MEDIA - KM)		
Generator	168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT		

	Time	Scale	Operator	Inbound	
In	04/09/2021 15:23:33	MANUAL WT	pslider1		Gross
Out	04/09/2021 15:23:33		pslider1		Tare
					Net
					Tons

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	MANIFEST TRACKING-	100	1.00	Each	0.00			

Total Tax
Total Ticket

Driver`s Signature

CWMI

ESP

Please print or type. 481106 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	WAH000050132	2	(800)424-9300	019234592 JJK

5. Generator's Name and ~~Mailing~~ Address: CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Site gm 4-8-21

Generator's Site Address (if different than mailing address):
670 TERRY AVENUE NORTH
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address:
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
GENERATOR	X	1. UN1490,WASTE POTASSIUM PERMANGANATE,5.1,PGII OR344906	1	~~CF~~ BA	500	P	D003		
	X	2. NA3077,HAZARDOUS WASTE SOLID,N.O.S. (CARBON),9,PGIII OR344667	1	~~CF~~ BA	250	P	F002		
		3.							
		4.							

14. Special Handling Instructions and Additional Information
1.OR344906-INC14
2.OR344667-LF04

WMXG
980797

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL — Signature: [signature] — Month 3 Day 23 Year 21

INT'L
16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER
17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAUL LAWAY — Signature: [signature] — Month 3 Day 23 Year 21
Transporter 2 Printed/Typed Name: G ATHEIMER — Signature: G A — Month 03 Day 24 Year 21

DESIGNATED FACILITY
18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. ~~H040~~ H121 2. H132 3. 4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest ~~except~~ as noted in Item 18a
Printed/Typed Name: Pat Slicker — Signature: [signature] — Month 4 Day 5 Year 21

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete. DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

gm

Please print or type. 481106 ESP CWMI

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: WAH000050132

22. Page 2 of 2

23. Manifest Tracking Number: 019234592JJK

24. Generator's Name: CITY INVESTORS IX LLC

25. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

26. Transporter _____ Company Name — U.S. EPA ID Number:

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes

32. Special Handling Instructions and Additional Information: voucher 980797

GENERATOR

TRANSPORTER

33. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name: Brittney Hawins — Signature: Brittney Hawins — Month 13 Day 31 Year 21

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	[illegible]	2	[illegible]	[illegible]

GENERATOR

5. Generator's Name and Mailing Address
[illegible]
Generator's Phone: [illegible]

Generator's Site Address (if different than mailing address)
[illegible]

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC — U.S. EPA ID Number: [illegible]

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: [illegible]

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
Facility's Phone: [illegible] — U.S. EPA ID Number: [illegible]

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. [illegible]	6	DM	10,800	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
[illegible]

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] — Signature: [illegible] — Month: 7 — Day: [illegible] — Year: [illegible]

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____
Transporter Signature (for exports only): Date leaving U.S.: _____

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] — Signature: [illegible] — Month: 7 — Day: 22 — Year: 20

Transporter 2 Printed/Typed Name: _____ — Signature: _____ — Month: _____ — Day: _____ — Year: _____

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number: _____

17b. Alternate Facility (or Generator) — U.S. EPA ID Number: _____

Facility's Phone: _____

17c. Signature of Alternate Facility (or Generator) — Month: _____ — Day: _____ — Year: _____

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: _____ — Signature: _____ — Month: _____ — Day: _____ — Year: _____

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	WAH000050132	2	(800)424-9300	CIIKLLC-9220-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-538 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2014

Generator's Site Address (if different than mailing address)
670 TERR / AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC
U.S. EPA ID Number
ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number
NED001792810

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number
ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	10	CF	20,000	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
115187WA-LF01

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIELK
Signature:
Month: 9 Day: 7 Year: 2010

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PEG ALBAGI
Signature:
Month: 9 Day: 7 Year: 10

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	WAH000050132	2	(800)424-9300	CIIKLLC-9220-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-538 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2014

Generator's Site Address (if different than mailing address)
670 TERR / AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC
U.S. EPA ID Number
ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number
NED001792810

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number
ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	10	CF	20,000	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
115187WA-LF01

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIELK
Signature:
Month: 9 Day: 7 Year: 2010

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PEG ALBAGI
Signature:
Month: 9 Day: 7 Year: 10

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name:
Signature:
Month: Day: Year:

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N/A

2. Page 1 of 2

3. Emergency Response Phone: (800)121-9300

4. Waste Tracking Number: CI10282D-ESP1

5. Generator's Name and Mailing Address:
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109

Generator's Phone: (206)312-2011

Generator's Site Address (if different than mailing address):
670 TERRY AVE NORTH
SEATTLE, WA 98109

U.S. EPA ID Number: ORD089452353

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.

U.S. EPA ID Number: NED001792910

7. Transporter 2 Company Name: UPRR

U.S. EPA ID Number: ORD987173457

8. Designated Facility Name and Site Address:
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812

Facility's Phone: (541)454-2030

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	11	BA	16,500	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
1. 115187WA-ER01

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ______
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KEK HMM | Signature: [illegible] | Month 12 | Day 28 | Year 20

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

Published by J.J. KELLER & ASSOCIATES, INC.®, Neenah, WI • USA • (800) 327-6868 • jjkeller.com • Printed in the United States

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	MATERIAL NOT REGULATED BY D.O.T	15		27,000	P
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name | Signature | Month | Day | Year

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

CWMI

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	WAH000050132	2	(800)424-9300	C111221-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2011

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	4	BA	7,200	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] | Signature: [signature] | Month | Day | Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PELE LAVATTI | Signature: [signature] | Month 7 | Day 12 | Year 21
Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

CWMI

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAH000050132	2	(800)121-9300	C111221-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2011

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	4	BA	7,200	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]			

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

	Printed/Typed Name	Signature	Month	Day	Year
Transporter 1	PETE LAVATTI	[signature]	7	12	21
Transporter 2					

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	[illegible]	2	(800) 424-9300	[illegible]

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS 1 LLC
500-538 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206) 812-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE NORTH
SEATTLE WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC

U.S. EPA ID Number
ORD009052393

7. Transporter 2 Company Name
UPRR

U.S. EPA ID Number
NED981990410

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812

U.S. EPA ID Number
ORD987172157

Facility's Phone: (541) 454-2030

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. [illegible]	12	CF	18,00	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
[illegible]

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name [illegible] | Signature | Month 3 | Day 23 | Year 21

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

17b. Alternate Facility (or Generator) Manifest Reference Number:
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAH000050112	2	(800)424-9300	CLL C12821 ESP2

5. Generator's Name and Mailing Address

CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109

Generator's Phone: (206)342-2611

Generator's Site Address (if different than mailing address)

670 TERRY AVE N.
SEATTLE WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT INC — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address

COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812

Facility's Phone: (541)454-2030

U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	8 (16)	BA	14,400	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

115187WA-EP01

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] | Signature: [illegible] | Month | Day | Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kirk [illegible] | Signature: [illegible] | Month 9 | Day 27 | Year 21

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 6 10498 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	[illegible]	2	(800)424-9300	CILLC12721-BSP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-530 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)[illegible]

Generator's Site Address (if different than mailing address)
670 TERRY AVE N.
SEATTLE WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC
U.S. EPA ID Number ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. MATERIAL NOT REGULATED BY D.O.T 115197WA	18	BA	32,9[illegible]	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name | Signature | Month | Day | Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name [illegible] | Signature [signature] | Month 9 | Day 27 | Year 21
Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	WAH000050112
2. Page 1 of	2
3. Emergency Response Phone	(800)424-9300
4. Waste Tracking Number	CILLC12821ESP2

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2000

Generator's Site Address (if different than mailing address)
670 TERRY AVE N.
SEATTLE WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT INC
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	8 (16)	BA	14.400	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
115187WA-EP01

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] | Signature: [illegible] | Month [illegible] Day [illegible] Year [illegible]

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: ______
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Kirk [illegible] | Signature: [illegible] | Month 9 Day 27 Year 21
Transporter 2 Printed/Typed Name: | Signature: | Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name | Signature | Month Day Year

CWMI

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
~~WAN1000050132~~	2	~~(800)424-9300~~	~~C181221-ESP1~~

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: ~~(206)212-2614~~

Generator's Site Address (if different than mailing address)
870 TERRY AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: ~~NED981792910~~

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
U.S. EPA ID Number: ORD089452353
Facility's Phone: ~~541454-2613~~

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. MATERIAL NOT REGULATED BY D.O.T. OR347587	4	BA	7,500	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
1. OR347587-LF01

INTL

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN RIEHL — Signature — Month Day Year: 12/13/20

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KELLY MARTI — Signature — Month Day Year: 12/13/21

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number

17b. Alternate Facility (or Generator) — Month Day Year
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month Day Year

GENERATOR'S/SHIPPER'S INITIAL COPY

169-BLC-O 5 11977 (Rev. 9/09)

CWMI

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A	2	(800)424-9300	CIIX-71320-ESP1

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX L.L.C.
500-536 WESTLAKE AVENUE N
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
607 TERRY AVE N
SEATTLE,WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	10	BA	18,000	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1.115187WA-LF01

ESP

WMXU 970701

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BLENL
Signature:
Month: 7 Day: 13 Year: 20

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PETE LAVRATT
Signature:
Month: 7 Day: 13 Year: 20

Transporter 2 Printed/Typed Name: G R
Signature:
Month: 7 Day: 13 Year: 20

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Victoria McKinney
Signature:
Month: 7 Day: 20 Year: 20

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CWMI

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number	20. Page 2 of 2	21. Waste Tracking Number
	N/A		CIIX71320-ESP1

22. Generator's Name CITY INVESTORS IX L.L.C.

23. Transporter_____ Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

24. Transporter_____ Company Name — U.S. EPA ID Number

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

GENERATOR

29. Special Handling Instructions and Additional Information

ESP WMXV 970701

TRANSPORTER

30. Transporter_____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

31. Transporter_____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

ALASKA STREET 10-DAY BILLING SPREADSHEET

CONTAINER WMXU 970701

Date In	Date to Rail	Manifest #	Profile #	Exp. Date	Generator	Drum/Carton size	Qty	Type	Class
7/13/2020	7/13/2020	CIIX-71320-ESP1	115187WA	5/1/2021	CITY INVESTORS IX LLC	CY BA	10	BA	NH
						Drum Equivalent			
						TOTAL PIECES SHIPP	10		

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 637660

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 07/20/2020
Payment Type Credit Account
Manual Ticket# 983166
Hauling Ticket#
Destination UP/CWMNW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 970
Vehicle# 970701
Container 970701
Billing # 0002666
Manifest CIIX-71320-ESP1
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	07/18/2020 15:10:40	MANUAL WT	vmckinne		Gross	65920 lb*
Out	07/20/2020 15:10:40		vmckinne		Tare	50180 lb*
			* Manual Weight		Net	15740 lb
					Tons	7.87

Comments 10 BAGS

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	10.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	10.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	10.00	Each				WA-SEATTLE

Driver`s Signature

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
N/A	2	(800)424-9300	CI72220-ESP1

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
607 TERRY AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: NED001792910

18177 Cedar Springs Ln.
Arlington, OR 97812

8. Designated Facility Name and Site Address
~~CHEMICAL WASTE MANAGEMENT, INC.~~
~~17629 CEDAR SPRINGS LANE~~
~~ARLINGTON OR 97812-9799~~
Facility's Phone: (541)454-2643
U.S. EPA ID Number: ORD089452353

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	6	BA	10,800	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1.115187WA-LF01

WMXU 980303

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL — Signature — Month 07 Day 22 Year 2020

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature — Month 7 Day 22 Year 20

Transporter 2 Printed/Typed Name: G Altheimer — Signature — Month 7 Day 22 Year 20

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: G Althe Toni Ames — Signature — Month 8 Day 10 Year 20

169-BLC-O 6 10498 (Rev. 9/09) **DESIGNATED FACILITY TO GENERATOR**

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number N/A	20. Page 2 of 2	21. Waste Tracking Number CI72220-ESP1

22. Generator's Name CITY INVESTORS IX LLC

23. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL U.S. EPA ID Number ORD987173457

24. Transporter ____ Company Name U.S. EPA ID Number

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

GENERATOR

29. Special Handling Instructions and Additional Information

3 WAUXU 980303

TRANSPORTER

30. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month 7 Day 30 Year 20

31. Transporter ____ Acknowledgment of Receipt of Materials

Printed/Typed Name Ginger Williams | Signature | Month | Day | Year

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06) DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 641458

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 08/06/2020
Payment Type Credit Account
Manual Ticket# 1006936
Hauling Ticket#
Destination CWM
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier TRUCK
Vehicle# 1
Container
Billing # 0002666
Manifest CI72220-ESP1
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	08/06/2020 12:59:06	Front Scale	tames1		Gross	8300 lb*
Out	08/06/2020 13:03:18	Front Scale	tames1		Tare	60 lb*
			* Manual Weight		Net	8240 lb
					Tons	4.12

Comments 6 BA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	6.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	6.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	6.00	Each				WA-SEATTLE

Driver`s Signature

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAH000050132	2	(800)424-9300	CIIXLLC-9220-ESP1

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	10	~~CF~~ BA	20,000	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1. 115187WA-LF01

WMXU
970857

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: [illegible] | Signature | Month 9 | Day 2 | Year 2020

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PELE AVRAM | Signature | Month 9 | Day 2 | Year 20

Transporter 2 Printed/Typed Name: G Althimer | Signature: GA | Month 9 | Day 2 | Year 20

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Jessica M. Aday | Signature: J M. Aday | Month 9 | Day 16 | Year 20

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number	20. Page 2 of 2	21. Waste Tracking Number
	WAH000050132		CIIXLLC-9220-SP1

22. Generator's Name: CITY INVESTORS IX LLC

23. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

24. Transporter _____ Company Name — U.S. EPA ID Number:

GENERATOR

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

29. Special Handling Instructions and Additional Information

WMXU
970857

TRANSPORTER

30. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

31. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Jennifer Williams | Signature | Month: 9 | Day: 7 | Year: 20

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

Non-Hazardous WAM Approval

Requested Management Facility: Columbia Ridge Landfill

Profile Number: 115187WA

Waste Acceptance Expiration Date: 05/01/2021

Common Name: LF01-Aqueous Phase Treatment Media - Car...

WM Regulatory Volume Limit: _____ ☑ NA

APPROVAL DETAILS

Approval Decision: ☑ Approved ☐ Not Approved

Profile Renewal: ☐ Yes ☑ No

Management Method: Direct Landfill

Generator Name: City Investors IX L.L.C.

Profile Expiration Date: 05/01/2021

Periodic Testing Due Date: _____ ☑ NA

Other Due Date: _____ ☑ NA (Specify) _____

Management Facility Precautions, Special Handling Procedures or Limitation on approval:

Generator Conditions

- Shall not contain free liquids.
- Shipment must be scheduled into the disposal facility at least 24 hours in advance. Contact information will be provided by your TSR.
- Waste manifest or applicable shipping document must accompany load.
- The waste profile number must appear on the shipping papers.

WM Authorization Name: Leslie Fichera

Title: Waste Approval Manager

WM Authorization Signature: Leslie Fichera

Date: 05/01/2020

Agency Authorization (if Required): _____

Date: _____

THINK GREEN.

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

Last Revised January 25, 2018

EZ Profile™

WASTE MANAGEMENT

Requested Facility: Columbia Ridge Landfill ☐ Unsure Profile Number: 115187WA

☐ Multiple Generator Locations (Attach Locations) ☐ Request Certificate of Disposal ☐ Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: City Investors IX L.L.C.
2. Site Address: 500-536 Westlake Avenue North
   (City, State, ZIP) Seattle WA 98109
3. County: King
4. Contact Name: Sean Biehl
5. Email: SeanB@vulcan.com
6. Phone: (206) 342-2614 7. Fax: _____
8. Generator EPA ID: _____ ☑ N/A
9. State ID: _____ ☑ N/A

B. BILLING INFORMATION ☐ SAME AS GENERATOR

1. Billing Name: City Investors IX L.L.C.
2. Billing Address: 505 5th Avenue South, Suite 900
   (City, State, ZIP) Seattle WA 98104
3. Contact Name: Sean Biehl
4. Email: SeanB@vulcan.com
5. Phone: (206) 342-2614 6. Fax: _____
7. WM Hauled? ☑ Yes ☐ No
8. P.O. Number: 397-019
9. Payment Method: ☑ Credit Account ☐ Cash ☐ Credit Card

C. MATERIAL INFORMATION

1. Common Name: LF04-Aqueous Phase Treatment Media - Carbon and
   Describe Process Generating Material: ☐ See Attached

   Granular activated carbon to treat water generated from a construction dewatering system treatment system prior to discharge. Sludge from construction dewatering system settling tank.

2. Material Composition and Contaminants: ☐ See Attached

1. Carbon	50 %
2. Sludge	50 %
3.	
4.	
Total comp. must be equal to or greater than 100%	≥100%

3. State Waste Codes: _____ ☑ N/A
4. Color: black/brown
5. Physical State at 70°F: ☑ Solid ☐ Liquid ☐ Other: _____
6. Free Liquid Range Percentage: _____ to _____ ☑ N/A
7. pH: _____ to _____ ☑ N/A
8. Strong Odor: ☐ Yes ☑ No Describe: _____
9. Flash Point: ☐ <140°F ☐ 140°–199°F ☐ ≥200° ☑ N/A

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? ☐ Yes* ☑ No
   Code: _____
2. State Hazardous Waste? ☐ Yes ☑ No
   Code: _____
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? ☐ Yes* ☑ No
4. Contains Underlying Hazardous Constituents? ☐ Yes* ☑ No
5. From an industry regulated under Benzene NESHAP? ☐ Yes* ☑ No
6. Facility remediation subject to 40 CFR 63 GGGGG? ☐ Yes* ☑ No
7. CERCLA or State-mandated clean-up? ☐ Yes* ☑ No
8. NRC or State-regulated radioactive or NORM waste? ☐ Yes* ☑ No

***If Yes, see Addendum (page 2) for additional questions and space.**

9. Contains PCBs? → If Yes, answer a, b and c. ☐ Yes ☑ No
   a. Regulated by 40 CFR 761? ☐ Yes ☐ No
   b. Remediation under 40 CFR 761.61 (a)? ☐ Yes ☐ No
   c. Were PCB imported into the US? ☐ Yes ☐ No
10. Regulated and/or Untreated Medical/Infectious Waste? ☐ Yes ☑ No
11. Contains Asbestos? ☐ Yes ☑ No
    → If Yes: ☐ Non-Friable ☐ Non-Friable – Regulated ☐ Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached ☑ Yes
   Please identify applicable samples and/or lab reports:

   Lab ID: 2001099-002, Carbon Lab ID: 2001099-001, Weir Sludge Lab ID: 2004016-001, East Sludge

2. Other information attached (such as MSDS)? ☐ Yes

F. SHIPPING AND DOT INFORMATION

1. ☐ One-Time Event ☑ Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 10
   ☑ Tons ☐ Yards ☐ Drums ☐ Gallons ☐ Other: _____
3. Container Type and Size: roll off bin
4. USDOT Proper Shipping Name: ☑ N/A

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

☑ I am an Authorized Agent signing on behalf of the Generator, and I have confirmed with the Generator that information contained in this profile, as well as supporting documents provided, are accurate and complete.

Name (Print): Suzy Stumpf Date: 05/01/2020

Title: Senior Engineer

Company: Farallon Consulting

Certification Signature

THINK GREEN.®

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

Wetherell, Ruben

From: Dunlap, Dawn
Sent: Monday, September 14, 2020 9:50 AM
To: Wetherell, Ruben
Subject: MANIFEST #CIIXLLC-9220-ESP1

Good morning Ruben,

We have 10bags up in drum building that go to you guy's Matt has weighed them and they are ready to go they where from the rail. The profile #is115187WA.

Thank you
Dawn

Dawn Dunlap
Operations Specialist
Chemical Waste Management of the Northwest
ddunlap@wm.com

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 650021

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 09/16/2020
Payment Type Credit Account
Manual Ticket# 1008138
Hauling Ticket#
Destination UP/CUST
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 970
Vehicle# 970857
Container 970857
Billing # 0002666
Manifest C11Xllc-9220-esp1
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	09/04/2020 11:15:26	Front Scale	jaday		Gross	14060 lb*
Out	09/16/2020 11:15:26		jaday		Tare	20 lb*
			* Manual Weight		Net	14040 lb
					Tons	7.02

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	10.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	10.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	10.00	Each				WA-SEATTLE

Driver`s Signature

11/7 CWMI ESP

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: N/A
2. Page 1 of 1
3. Emergency Response Phone: (800)424-9300
4. Waste Tracking Number: CI102820-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE NORTH
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	11	BA	16,500	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1. 115187WA-LF01

CWMKU
970208

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: STEAN BIEHL — Signature — Month 10 Day 28 Year 2020

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: PETE LAPANT — Signature — Month 10 Day 28 Year 20

Transporter 2 Printed/Typed Name: G Altheimer — Signature — Month 11 Day 5 Year 20

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Judy Mckinley — Signature — Month 11 Day 7 Year 20

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number	20. Page 2 of 2	21. Waste Tracking Number
	N/A		CI102820-ESP1

22. Generator's Name CITY INVESTORS IX LLC

23. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

24. Transporter ____ Company Name — U.S. EPA ID Number

GENERATOR

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

29. Special Handling Instructions and Additional Information

WWXU
970208

TRANSPORTER

30. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name 3 — Signature — Month Day Year

31. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name Brittney Havins — Signature Brittney Havins — Month 11 Day 12 Year 20

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 666196

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 11/20/2020
Payment Type Credit Account
Manual Ticket# 0998905
Hauling Ticket#
Destination UP/COW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 970
Vehicle# 970208
Container 970208
Billing # 0002666
Manifest c1102820-esp1
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	11/12/2020 11:55:16	MANUAL WT	jvaldez		Gross	84220 lb*
Out	11/20/2020 11:55:16		jvaldez		Tare	64940 lb*
			* Manual Weight		Net	19280 lb
					Tons	9.64

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	11.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	11.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	11.00	Each				WA-SEATTLE

Driver`s Signature

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAH000050132
2. Page 1 of 2
3. Emergency Response Phone: (800)424-9300
4. Waste Tracking Number: CILLC111020-ESP1

5. Generator's Name and Mailing Address:
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109

Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address):
670 TERRY AVE NORTH
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address:
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812

U.S. EPA ID Number: ORD987173457

Facility's Phone: (541)454-2030

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	15	BA	27,000	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
1.115187WA-LF01

WMXU
970231

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL — Signature: [signature] — Month 11 Day 10 Year 2020

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PETE LAVRAM — Signature: [signature] — Month 11 Day 10 Year 20
Transporter 2 Printed/Typed Name: G Altheimer — Signature: G A — Month 11 Day 10 Year 20

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Julie Valdez — Signature: Julie Valdez — Month 11 Day 20 Year 20

169-BLC-O 6 10498 (Rev. 9/09) — DESIGNATED FACILITY TO GENERATOR

CWMI

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number	20. Page 2 of 2	21. Waste Tracking Number
	WAH000050132		CILLC111020-ESP1

22. Generator's Name: CITY INVESTORS IX LLC

23. Transporter ____ Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

24. Transporter ____ Company Name — U.S. EPA ID Number

GENERATOR

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

29. Special Handling Instructions and Additional Information

WMXU
970231

TRANSPORTER

30. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

31. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

32. Discrepancy

DESIGNATED FACILITY TO GENERATOR

170-BLC-O 6 10502 (Rev. 8/06)

Non-Hazardous WAM Approval

WASTE MANAGEMENT

Requested Management Facility: Columbia Ridge Landfill

Profile Number: 115187WA

Waste Acceptance Expiration Date: 05/01/2021

Common Name: LF01-Aqueous Phase Treatment Media - Car...

WM Regulatory Volume Limit: ☑ NA

Profile Renewal: ☐ Yes ☑ No

APPROVAL DETAILS

Approval Decision: ☑ Approved ☐ Not Approved

Management Method: Direct Landfill

Generator Name: City Investors IX L.L.C.

Profile Expiration Date: 05/01/2021

Periodic Testing Due Date: ☑ NA

Other Due Date: ☑ NA (Specify)

Management Facility Precautions, Special Handling Procedures or Limitation on approval:

Generator Conditions

- Shall not contain free liquids.
- Shipment must be scheduled into the disposal facility at least 24 hours in advance. Contact information will be provided by your TSR.
- Waste manifest or applicable shipping document must accompany load.
- The waste profile number must appear on the shipping papers.

WM Authorization Name: Leslie Fichera

Title: Waste Approval Manager

WM Authorization Signature: Leslie Fichera

Date: 05/01/2020

Agency Authorization (if Required):

Date:

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 665144

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 11/20/2020
Payment Type Credit Account
Manual Ticket# 0998788
Hauling Ticket#
Destination UP/CWMNW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 970
Vehicle# 970231
Container 970231
Billing # 0002666
Manifest CILLC111020
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	11/12/2020 07:52:18	MANUAL WT	jvaldez		Gross	27020 lb*
Out	11/20/2020 07:52:18		jvaldez		Tare	20 lb*
			* Manual Weight		Net	27000 lb
					Tons	13.50

Comments 15 BAGS - Came on can from 10 day AK street

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	15.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	15.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	15.00	Each				WA-SEATTLE

Driver`s Signature

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAH000050132
2. Page 1 of: 2
3. Emergency Response Phone: (800)424-9300
4. Waste Tracking Number: CI11221-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	4	BA	7,200	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1.115187WA-LF01
WMXU
970980

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL
Signature:
Month: 1 Day: 12 Year: 202

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Date leaving U.S.:
Transporter Signature (for exports only):

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PAUL LAWRAT
Signature:
Month: 1 Day: 12 Year: 21

Transporter 2 Printed/Typed Name: G Althemer
Signature:
Month: 1 Day: 12 Year: 21

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
U.S. EPA ID Number
17b. Alternate Facility (or Generator)
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Jessica M. Holey
Signature:
Month: 2 Day: 9 Year: 21

DESIGNATED FACILITY TO GENERATOR

169-BLC-O 6 10498 (Rev. 9/09)

CWMI

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number WAH000050132	20. Page 2 of 2	21. Waste Tracking Number C111221-ESP1

22. Generator's Name CITY INVESTORS IX LLC

23. Transporter 3 Company Name COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number ORD987173457

24. Transporter ____ Company Name — U.S. EPA ID Number

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

GENERATOR

29. Special Handling Instructions and Additional Information

WMNW
970980

TRANSPORTER

30. Transporter 3 Acknowledgment of Receipt of Materials
Printed/Typed Name Sarah Mastriona — Signature Sarah Mastriona — Month 1 Day 18 Year 21

31. Transporter ____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

32. Discrepancy

DESIGNATED FACILITY TO GENERATOR

170-BLC-O 6 10502 (Rev. 8/06)

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 679551

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 02/09/2021
Payment Type Credit Account
Manual Ticket# 1010301
Hauling Ticket#
Destination UP/CWMNW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 970
Vehicle# 970980
Container 970980
Billing # 0002666
Manifest CI11221-ESPI
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	01/16/2021 12:51:25	MANUAL WT	jvaldez		Gross	7220 lb*
Out	02/09/2021 12:51:25		jvaldez		Tare	20 lb*
			* Manual Weight		Net	7200 lb
					Tons	3.60

Comments 4 BAGS

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	4.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	4.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	4.00	Each				WA-SEATTLE

Driver`s Signature

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: WAH000050132
2. Page 1 of: 2
3. Emergency Response Phone: (800)424-9300
4. Waste Tracking Number: CI32321-ESP1

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE NORTH
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

GENERATOR

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	12	~~CF~~ BA	18,000	P	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1. 115187WA-LF01

WMXU
980317

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL
Signature:
Month 3 Day 23 Year 21

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KELLY ANN
Signature:
Month 3 Day 23 Year 21

Transporter 2 Printed/Typed Name: G ALTHEIMER
Signature:
Month 3 Day 23 Year 21

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: JESSICA M. ASHLEY
Signature:
Month 3 Day 31 Year 21

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)	19. Generator ID Number WAH000050132	20. Page 2 of 2	21. Waste Tracking Number CI32321-ESP1

22. Generator's Name CITY INVESTORS IX LLC

23. Transporter_____ Company Name COLUMBIA RIDGE LANDFILL U.S. EPA ID Number ORD987173457

24. Transporter_____ Company Name U.S. EPA ID Number

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

GENERATOR

29. Special Handling Instructions and Additional Information

WMKU-
980317

TRANSPORTER

30. Transporter_____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

31. Transporter_____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 689506

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 04/01/2021
Payment Type Credit Account
Manual Ticket# 1015044
Hauling Ticket#
Destination UP/CWMNW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 980 980
Vehicle# 980317
Container 980317
Billing # 0002666
Manifest C132321-ESP1
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	03/31/2021 12:34:26	Front Scale	jaday		Gross	87240 lb*
Out	04/01/2021 12:34:26		jaday		Tare	64566 lb*
			* Manual Weight		Net	22674 lb
					Tons	11.34

Comments 12 BA-R/CF

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	12.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	12.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	12.00	Each				WA-SEATTLE

Driver`s Signature

CWMI

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAH000050132	2	(800)424-9300	CILLC42821-ESP2

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109

Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE N.
SEATTLE, WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
U.S. EPA ID Number: ORD987173457

Facility's Phone: (541)454-2030

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. MATERIAL NOT REGULATED BY D.O.T. 115187WA	8	BA	14,400	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
1.115187WA-LF01

WMXU-970915

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL
Signature: [signature]
Month 4 Day 27 Year 21

15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: PETE LAURA
Signature: [signature]
Month 4 Day 27 Year 21

Transporter 2 Printed/Typed Name: G Altheimer
Signature: [signature]
Month 4 Day 29 Year 21

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: V McKinney
Signature: [signature]
Month 5 Day 11 Year 21

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CWMI

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)

19. Generator ID Number: WAH000050132

20. Page 2 of 2

21. Waste Tracking Number: CILLC42821-ESP2

22. Generator's Name: CITY INVESTORS IX LLC

23. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL

U.S. EPA ID Number: ORD987173457

24. Transporter ____ Company Name

U.S. EPA ID Number

GENERATOR

25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

29. Special Handling Instructions and Additional Information

WMKU - 970915

TRANSPORTER

30. Transporter ____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Brittney Hawins Signature: BHS Month 05 Day 05 Year 21

31. Transporter ____ Acknowledgment of Receipt of Materials

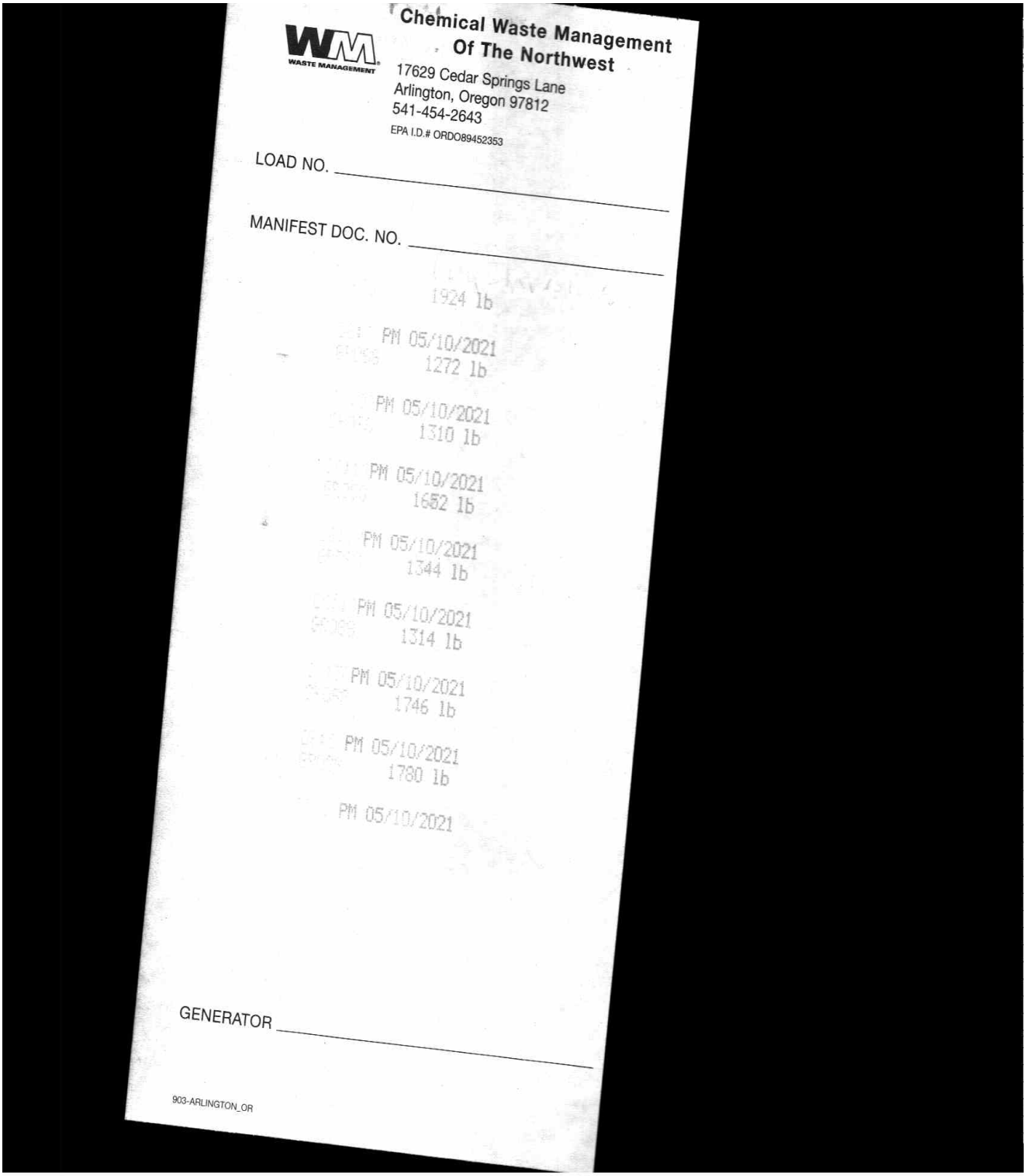
Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR



Chemical Waste Management Of The Northwest

17629 Cedar Springs Lane
Arlington, Oregon 97812
541-454-2643
EPA I.D.# ORDO89452353

LOAD NO. _____

MANIFEST DOC. NO. _____

1924 lb

PM 05/10/2021
1272 lb

PM 05/10/2021
1310 lb

PM 05/10/2021
1662 lb

PM 05/10/2021
1344 lb

PM 05/10/2021
1314 lb

PM 05/10/2021
1746 lb

PM 05/10/2021
1780 lb

PM 05/10/2021

GENERATOR _____

903-ARLINGTON_OR

WM
WASTE MANAGEMENT

ALASKA STREET 10- DAY FACILITY ENVIRONMENTAL INSPECTION SHEET

LOAD IN: ESP/CWM

CONTAINER # WMXU 970915

INSPECTION DATE : 4/27/21

PROCESS UNIT NAME: ESP-CWM-10-DAY

PROFILE (S) # / EXPIRATION DATE:

1. OR 115187 WA - 5/1/21
2. _____
3. _____
4. _____
5. _____
6. _____

A. FREIGHT CONTAINER INSPECTION:

Check for any visible signs of leaks within the trailer

B. CONTAINERS / METAL / POLY/ DRUMS:

Check drum condition

Check for leaks

Check make sure bung caps are closed

Check for proper labeling / markings

Check for incompatible storage

10-DAY FACILITY CONTAINER (S) RECEIVED & INSPECTED

INSPECTION TIME	ITEM	ADDITIONAL INSPECTION NOTES	STATUS ACCEPTABLE	STATUS UNACCEPTABLE
	8- BA	Sack		

Discrepancy, specify reason : _____

ESP / CWM SIGNATURE : _____

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 694202

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 05/11/2021
Payment Type Credit Account
Manual Ticket# 1043032
Hauling Ticket#
Destination UP/CWMNW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 970
Vehicle# 970915
Container 970915
Billing # 0002666
Manifest CILLC42821-ESP2
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	05/04/2021 13:07:01	MANUAL WT	vmckinne		Gross	12360 lb*
Out	05/11/2021 13:07:01	MANUAL WT	vmckinne		Tare	20 lb*
			* Manual Weight		Net	12340 lb
					Tons	6.17

Comments 8 BAGS

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	8.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				WA-SEATTLE
3	TRANS U SPW EA-TRA	100	8.00	Each				WA-SEATTLE
4	10 DAY FEE SPW-10	100	8.00	Each				WA-SEATTLE

Driver`s Signature

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
WAH000050132	2	(800)424-9300	CILLC42721-ESP1

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: (206)342-2614

Generator's Site Address (if different than mailing address)
670 TERRY AVE N.
SEATTLE, WA 98109

6. Transporter 1 Company Name
CHEMICAL WASTE MANAGEMENT, INC.
U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name
UPRR
U.S. EPA ID Number: NED001792910

8. Designated Facility Name and Site Address
COLUMBIA RIDGE LANDFILL
18177 CEDAR SPRINGS LANE
ARLINGTON OR 97812
Facility's Phone: (541)454-2030
U.S. EPA ID Number: ORD987173457

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	MATERIAL NOT REGULATED BY D.O.T. 115187WA	18	BA	32,400P		
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
1.115187WA-LF01

WMXU - 980625

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN BIEHL
Signature:
Month: 4 Day: 27 Year: 21

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Date leaving U.S.:

TRANSPORTER

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: RICK LAVLAM
Signature:
Month: 4 Day: 27 Year: 21

Transporter 2 Printed/Typed Name: G. Altheimer
Signature:
Month: 4 Day: 27 Year: 21

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: ~~[illegible]~~ Jessica M. Ash
Signature:
Month: 5 Day: 19 Year: 21

DESIGNATED FACILITY TO GENERATOR

169-BLC-O 6 10498 (Rev. 9/09)

CWMI

ESP

NON-HAZARDOUS WASTE MANIFEST (Continuation Sheet)

19. Generator ID Number: WAH000050132

20. Page 2 of 2

21. Waste Tracking Number: CILLC42721-ESP1

22. Generator's Name: CITY INVESTORS IX LLC

23. Transporter 3 Company Name: COLUMBIA RIDGE LANDFILL — U.S. EPA ID Number: ORD987173457

24. Transporter ____ Company Name: ____ — U.S. EPA ID Number: ____

GENERATOR

	25. Waste Shipping Name and Description	26. Containers No.	26. Containers Type	27. Total Quantity	28. Unit Wt./Vol.	

29. Special Handling Instructions and Additional Information

WMSA - 980625

TRANSPORTER

30. Transporter ____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

31. Transporter ____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

DESIGNATED FACILITY

32. Discrepancy

170-BLC-O 6 10502 (Rev. 8/06)

DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

Columbia Ridge
18177 Cedar Springs Lane
Arlington, OR, 97812
Ph: (541) 454-2030

Reprint
Ticket# 696936

Customer Name CITY INVESTORS IX LLC CITY IN
Ticket Date 05/19/2021
Payment Type Credit Account
Manual Ticket# 1017673
Hauling Ticket#
Destination UP/CWMNW
Profile 115187WA (LF01-Aqueous Phase Treatment Media - Carbon and Sludge)
Generator 168-CITY INVESTORS IXLLC 500 CITY INVESTORS IX LLC 500-536 WESTLAKE AVE NORT

Carrier 980 980
Vehicle# 980625
Container 980625
Billing # 0002666
Manifest CIllc42721-ESP1
PO 397-019

Volume

	Time	Scale	Operator	Inbound		
In	04/28/2021 08:10:48	Front Scale	jaday		Gross	97340 lb*
Out	05/19/2021 08:10:48		jaday		Tare	64700 lb*
			* Manual Weight		Net	32640 lb
					Tons	16.32

Comments 18 BA

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Spwaste Solid Oth-	100	18.00	Each				WA-SEATTLE
2	EVF-P-Standard Env	100		%				
3	TRANS U SPW EA-TRA	100	18.00	Each				
4	10 DAY FEE SPW-10	100	18.00	Each				

Driver`s Signature

CWMI

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
~~WAN1000050132~~	2	~~(800)424-9300~~	~~C181221-ESP1~~

GENERATOR

5. Generator's Name and Mailing Address
CITY INVESTORS IX LLC
500-536 WESTLAKE AVENUE NORTH
SEATTLE WA 98109
Generator's Phone: ~~(206)212-2614~~

Generator's Site Address (if different than mailing address)
870 TERRY AVE N
SEATTLE, WA 98109

6. Transporter 1 Company Name: CHEMICAL WASTE MANAGEMENT, INC. — U.S. EPA ID Number: ORD089452353

7. Transporter 2 Company Name: UPRR — U.S. EPA ID Number: ~~NED981792910~~

8. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
17629 CEDAR SPRINGS LANE
ARLINGTON OR 97812-9709
U.S. EPA ID Number: ORD089452353
Facility's Phone: ~~541454-2613~~

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1. MATERIAL NOT REGULATED BY D.O.T. OR347587	4	BA	7,500	P
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information
1. OR347587-LF01

INTL

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: SEAN RIEHL — Signature — Month Day Year: 12/13/20

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: KELLY MARTI — Signature — Month Day Year: 12/13/21

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number

17b. Alternate Facility (or Generator) — Month Day Year
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name — Signature — Month Day Year

GENERATOR'S/SHIPPER'S INITIAL COPY

169-BLC-O 5 11977 (Rev. 9/09)