SoundEarth Strategies, Inc.
1011 SW Klickitat Way, Suite 212
Seattle, Washington 98134

Draft – Issued for Regulatory Review

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

TO:	Sunny Becker, Washington State Department of Ecology	**DATE**: January 16, 2025
FROM:	Thomas Cammarata, SoundEarth Strategies, Inc.	
SUBJECT:	Analysis of ZVI and EDS-ER Pilot Test Results – Plastic Sales and Services Site	

The purpose of this Technical Memorandum is to provide the results of the groundwater treatment pilot test implemented at the Plastic Sales and Services Site (the Site) in March 2024 using Electron Donor Solution-Extended Release (EDS-ER, an emulsified oil) and liquid zero-valent iron (ZVI) produced by Tersus Environmental (Tersus). The objective of the pilot test was to evaluate the efficacy of using EDS-ER and ZVI to degrade high concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC) remaining in the groundwater, which was treated with EDS-ER in 2019 as part of the cleanup action at the former Site by Lutheran Retirement Home of Greater Seattle (The Hearthstone).

SITE DESCRIPTION

Under the Agreed Order No. DE 7084 dated September 14, 2009, the Site is defined as the extent of hazardous substances at 6870 Woodlawn Avenue Northeast (the former Dry Cleaner Property). In 2009, the Site was defined by the extent of contamination caused by the releases of hazardous substances at the former Dry Cleaner Property and included the following:

- The Dry Cleaner Building property
- The property adjoining the Dry Cleaner Building property to the north, located at 6869 Woodlawn Avenue Northeast
- The property adjoining the Dry Cleaner Building property to the south, located at 6565 4th Avenue Northeast
- The property adjoining the Dry Cleaner Building property to the west, located at 6850 Woodlawn Avenue Northeast
- Portions of the western alley and Woodlawn Avenue Northeast and 4th Avenue Northeast rights-of-way (Woodlawn Avenue ROW and 4th Avenue ROW, respectively)

A supplemental investigation performed at the Site in 2022 found that tetrachloroethene (PCE) and its degradation products were present in the groundwater beyond what was understood as the extent of the Site in 2009. Based on the result from the supplemental investigation, and as shown on Figure 1, the Site now includes the 4th Avenue ROW north of the intersection with the Woodlawn Avenue Northeast ROW.

The current extent of the Site, based on the extent of the groundwater contamination, is shown on Figure 1.

BACKGROUND

The initial groundwater remedy, implemented in 2019, installed 34 pairs of injection wells into the shallow and deep water-bearing zones beneath the Site. SoundEarth Strategies, Inc. (SoundEarth) injected EDS-ER into each well to stimulate the biological degradation of chlorinated volatile organic compounds (CVOCs) in the groundwater, a chemical process known as hydrogenolysis (also known as enhanced reductive dechlorination). The 2019 groundwater treatment remedy successfully degraded PCE and trichloroethene (TCE) in the groundwater to concentrations below cleanup levels on a portion of the Site; however, cis-1,2-DCE and VC concentrations increased substantially after 2019 and remained in the groundwater at concentrations well above cleanup levels. This condition can occur when the addition of the EDS-ER creates anaerobic conditions in the groundwater conducive to the degradation of PCE and TCE but sometimes not sufficiently anaerobic to degrade cis-1,2-DCE and VC. In addition, a supplemental investigation performed in 2022 found that the CVOC groundwater plume moved into the 4th Avenue Northeast ROW north of the Woodlawn Avenue Northeast ROW. In response to the elevated residual concentrations of CVOCs in the groundwater at the Site and the presence of the CVOC plume in the 4th Avenue ROW, SoundEarth, with the approval of Ecology, performed a pilot test that included injecting EDS-ER combined with liquid ZVI in selected injection wells.

PILOT TEST CHEMISTRY

According to Tersus, EDS-ER and ZVI injected into the groundwater are designed to stimulate the biological and abiotic degradation of CVOCs. EDS-ER supplies a fermentable carbon substrate that leads to the biodegradation of CVOCs through the process known as hydrogenolysis. Hydrogenolysis removes chlorine atoms from molecules and replaces them with hydrogen atoms. In the case of CVOCs, this leads to the degradation of PCE and its degradation products to ethene, ethane, water, and carbon dioxide. ZVI serves as the reductant and CVOCs act as oxidants, leading to abiotic degradation of CVOC through the process known as β-elimination. In reductive β-elimination, two chlorine atoms or other halogens bonded to adjacent carbon atoms are removed, leaving behind two electrons, typically hydrogen. ZVI aids in abiotically degrading PCE and TCE, bypassing the formation of cis-1,2-DCE and VC. Furthermore, ZVI and the EDS-ER can quickly eliminate oxygen from groundwater, promoting the degradation of existing cis-1,2-DCE and VC.

PILOT TEST DESIGN

The pilot test injectate was a mixture of liquid ZVI and EDS-ER. It was injected into seven existing injection wells in the shallow water-bearing zone (IW16, IW21, IW30, IW31, IW33, IW59, and IW61; Figure 2) and six existing wells in the deep water-bearing zone (IW22, IW29, IW32, IW34, IW36, and IW38; Figure 3).

The product loading and injection volumes for EDS-ER and liquid ZVI were as follows:

- **EDS-ER:** A dosing of 13 percent of EDS-ER was selected. This concentration was higher than the concentration recommended by Tersus to compensate for the limited total volume that can be injected to avoid daylighting of the injectate. It was assumed that the increased concentration would allow for longer treatment times and enhance the possibility of downgradient migration of the injectate from the injection point.

- **Liquid ZVI:** A dosing of 1.6 percent by mass for liquid ZVI was selected based on its use as a secondary treatment mechanism to reduce the potential formation of cis-1,2-DCE and VC through beta elimination of PCE and TCE and promote anaerobic conditions that lead to the degradation of existing cis-1,2-DCE and VC by hydrogenolysis. Based on the dosing, the total mass of ZVI concentrate was estimated at 400 pounds.

Based on the dosing, the total volume of prepared EDS-ER and liquid ZVI solution is estimated at 2,000 gallons, equating to an approximately 3 percent pore volume replacement in the treatment area. The total EDS-ER and powered ZVI application volume equated to a delivery volume of approximately 100 gallons per shallow injection well and 350 gallons per deep injection well. The pilot study design specifics can be found in the Groundwater Pilot Test Work Plan Addendum prepared by SoundEarth and dated January 30, 2024 (the Work Plan; SoundEarth 2024).

PILOT TEST PERFORMANCE MONITORING PLAN

Following the Work Plan, SoundEarth planned to conduct groundwater performance monitoring for 18 months after the injection event performed on March 15, 2024. To monitor the performance of the pilot test, groundwater samples were collected from shallow injection wells IW16, IW21, IW30, IW31, IW33, IW59, and IW61 and deep injection wells IW22, IW29, IW32, IW34, IW36, and IW38. The groundwater samples were collected using passive diffusive samplers instead of a low-flow sampling using a peristaltic pump due to the presence of EDS-ER in the water column. Experience has shown that sampling groundwater using low-flow techniques leads to anomalous results because contaminants are sequestered in the injectate, which is not representative of the dissolved phase concentrations in the water column. A passive diffusion sampler uses diffusion, the movement of dissolved phase contaminants from a higher concentration in the groundwater to a lower concentration in the diffusive sampler until equilibrium is reached. Groundwater samples collected from the diffusive samplers were submitted for laboratory analysis of CVOCs by US Environmental Protection Agency (EPA) Method 8260D.

The pilot test's performance was also evaluated using changes in oxidation-reduction potential (ORP) and pH readings and concentrations of chloride, total iron, and sulfate in the observation groundwater monitoring wells located proximal to the injection wells. Changes in these geochemical parameters proximal to the injection wells provide evidence that hydrogenolysis and β-elimination are occurring as direct results of introducing EDS-ER and ZVI into the groundwater. Monitoring wells MW06, MW21, and MW28 and deep monitoring wells MW10, MW29, and MW31 (observation wells) were used to evaluate the performance of the pilot test (Figures 2 and 3).

ORP and pH were measured using a multiparameter meter in a flow cell during the purging of observation monitoring wells. Groundwater samples collected from the monitoring wells were submitted for laboratory analysis of the following analytes:

- Sulfate by EPA Method 300.0
- Chloride by EPA SM 4500-Cl E.
- Total Iron by EPA Method 200.8

PILOT TEST RESULTS

The performance of the pilot test was evaluated using changes in VC concentrations in the groundwater at the pilot test injection wells and changes in the geochemistry of the groundwater monitoring wells located proximal to the injection wells. Changes in the concentrations of PCE and TCE were not evaluated because those concentrations were not reported above laboratory reporting limits or were less than cleanup levels. Changes in the concentrations of cis-1,2-DCE were not evaluated because its concentration generally mirrors that of VC. For changes in VC concentrations over time, SoundEarth performed a statistical trend analysis at pilot test target wells with concentrations exceeding Washington State Model Toxics Control Act cleanup levels between October 2023 and June 2024. SoundEarth also monitored the performance of the pilot test by evaluating qualitative changes in the geochemistry of groundwater in observation wells located proximal to the injection wells where geochemistry data was available. Analytical results for the pilot test target wells are presented in Tables 1 to 3.

SoundEarth planned to conduct groundwater performance monitoring for 18 months after the injection event on March 15, 2024; however, the performance monitoring related directly to the pilot test was terminated after 3 months because the pilot test monitoring results did not meet expectations. Results from the pilot test are discussed below.

VC Concentrations

SoundEarth performed a statistical trend analysis using VC results from October 2023 and April, June, and October 2024 events to assess the injectate's ability to degrade VC in the groundwater. VC results from October 2023 were used as the baseline for the trend analysis because they represent the VC concentrations in the injection wells before the pilot test was initiated. The trend analyses were performed on pilot test shallow monitoring wells IW16, IW21, IW31, IW33, IW59, and IW61 and deep pilot test monitoring wells IW22, IW32, and IW34 following Ecology's *Guidance on Remediation of Petroleum-Contaminated Groundwater by Natural Attenuation*, dated July 2005 (Ecology 2005).

Results from the trend analysis for shallow and deep pilot test injection wells indicate that VC results were stable between the October 2023 and October 2024 sampling events, except for the VC results for pilot test target well IW22, where the trend was statistically undeterminable. Temporal analyses for the pilot test target wells is presented in Attachment A.

Geochemical Parameters

Changes in the chloride, iron, and sulfate concentrations and OPR and pH readings in the observation monitoring wells were used to evaluate the pilot test's performance. As a result of adding EDS-ER and ZVI to the injection wells, the following geochemical conditions were anticipated at the observations wells (ESTCP 2018a, 2018b):

- A substantial decline in ORP readings at observation monitoring wells because EDS-ER promotes anaerobic conditions in the groundwater due to the fermentation of EDS-ER. ZVI reacts with water to form oxyhydroxides, removes oxygen from the groundwater, and further promotes anaerobic conditions in the groundwater (Shi et al. 2015; ESTCP 2018a, 2018b).
- A substantial increase in pH readings at observation monitoring wells because of the corrosion of ZVI as it consumes H+ and/or releases OH, usually resulting in elevated pH, with pH values of 9 to

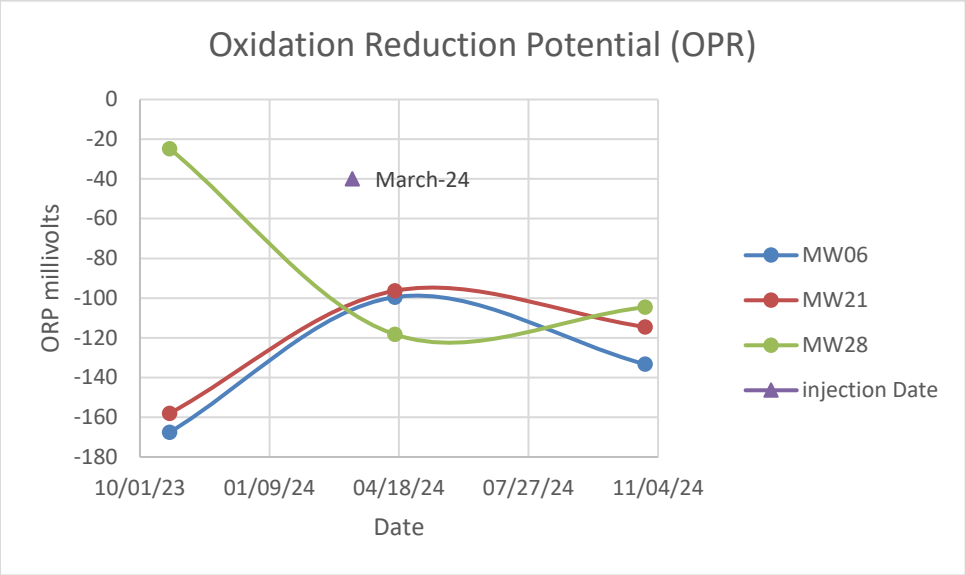
11 being common in laboratory studies with unbuffered suspensions of ZVI (Shi et al. 2015; ESTCP 2018a, 2018b).

- A substantial increase in chloride concentrations in the observation monitoring wells because EDS-ER promotes hydrogenolysis and ZVI promotes β-elimination. Both reactions remove chlorine atoms from CVOCs and replace them with hydrogen atoms (Shi et al. 2015; ESTCP 2018a, 2018b).
- A substantial decrease in sulfate concentrations at the observation monitoring wells due to the formation of ferrous iron from the ZVI and its reaction to form iron sulfide (Shi et al. 2015; ESTCP 2018a, 2018b).
- A substantial increase in total iron concentrations at the observation monitoring wells because of the additions of ZVI to the groundwater and the formation of ionized iron species (Shi et al. 2015; ESTCP 2018a, 2018b).

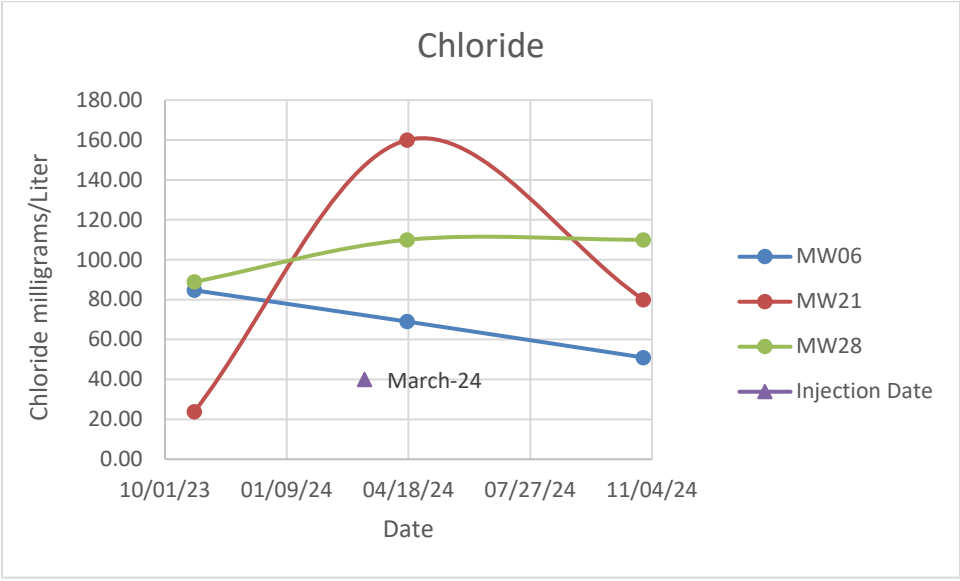
Below is a discussion of changes in chloride, iron, and sulfate concentrations and OPR and pH readings in the shallow and deep observation monitoring wells after injecting EDS-ER and ZVI.

Shallow Water-Bearing Zone: For the shallow water-bearing zone, changes in geochemical parameters at observation monitoring wells MW06 and MW28 were used to assess the performance of injectate added to shallow zone injection wells IW16, IW21, IW59, and IW61. Observation monitoring well MW21 was used to evaluate the performance of the injectate added to shallow injection wells IW30, IW31, and IW33,. Geochemical parameters collected during the October 25, 2023, baseline sampling event were compared to those collected during the April 17 and October 25, 2024, groundwater sampling events. Geochemical parameters were not collected directly from the injection wells because groundwater samples were collected using passive diffusive samplers, which do not allow for sampling and analysis of geochemical parameters.

- **Oxidation Reduction Potential**: As shown in the chart below, ORP readings declined at monitoring well MW28 approximately 30 days after the March 2024 injection event and slightly increased 225 days after the injection event compared to the baseline condition. The ORP readings at monitoring wells MW06 and MW28 increased 30 days after the injection event and slightly declined approximately 225 days after the injection event. A continuing decline in ORP readings over time, and ORP readings of less than -250 millivolts, would suggest hydrogenolysis and β-elimination are occurring, which is conducive to the degradation of VC. However, these conditions were not observed at observation monitoring wells.

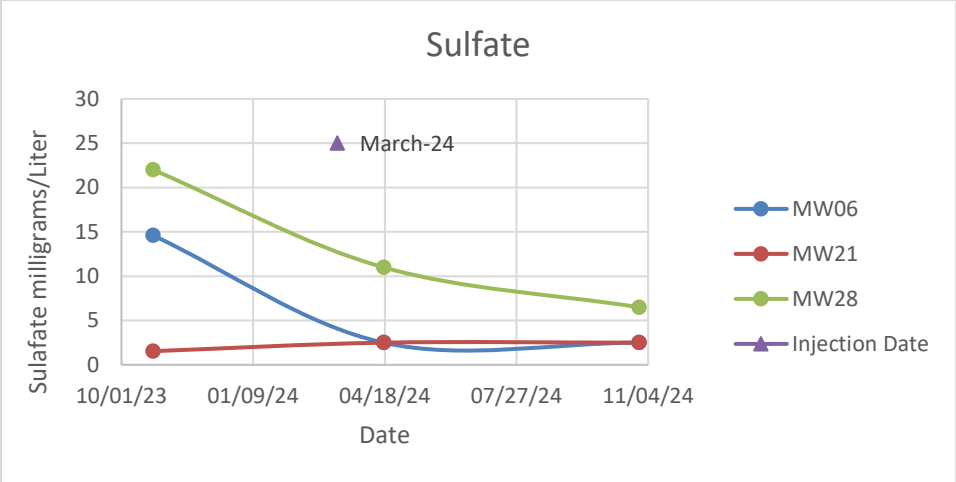


- **Chloride**: As shown in the chart below, chloride concentrations increased at observation monitoring well MW21 approximately 30 days after the March 2024 injection event but decreased 225 days thereafter compared to the baseline condition. The chloride concentration at observation monitoring wells MW06 and MW28 remained relatively stable 30 and 225 days after the injection event compared to their baseline conditions. A sustained increase in chloride with time would indicate the ongoing dehalogenation of CVOCs in the groundwater. However, these conditions were not observed at observation monitoring wells.

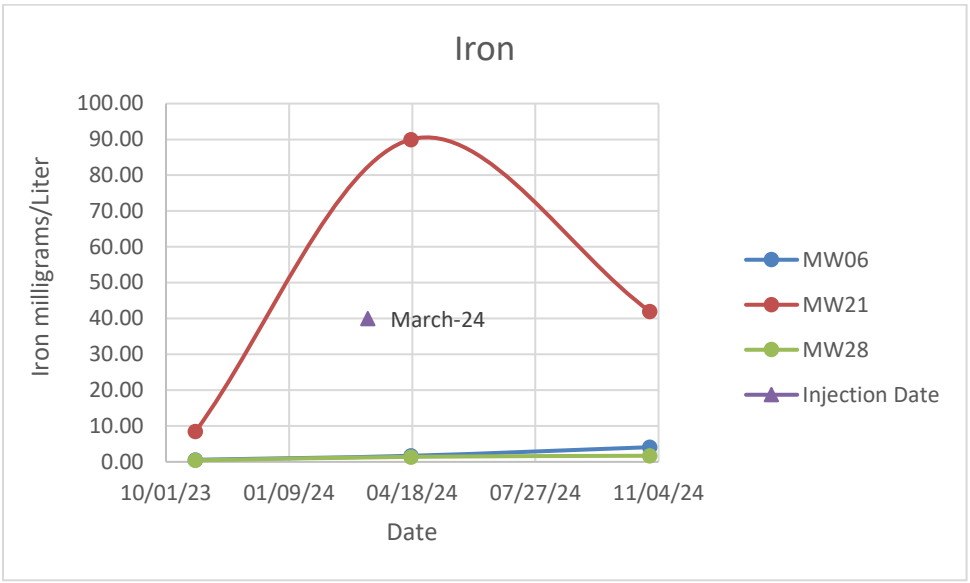


- **Sulfate**: As shown in the chart below, sulfate concentrations decreased at observation monitoring wells MW06 and MW28 approximately 30 and 225 days after the March 2024 injection event. There was no substantial change in the sulfate concentration at monitoring MW21 approximately 30 and 225 days after the March 2024 injection event. The decrease in the sulfate concentrations at observation monitoring wells MW06 and MW28 compared to their baseline concentrations

suggests that ferrous iron formed from the oxidation of ZVI migrated from the injection wells to the monitoring wells. The absence of a decline in sulfate at monitoring well MW21 suggests the ferrous iron did not reach the monitoring well.

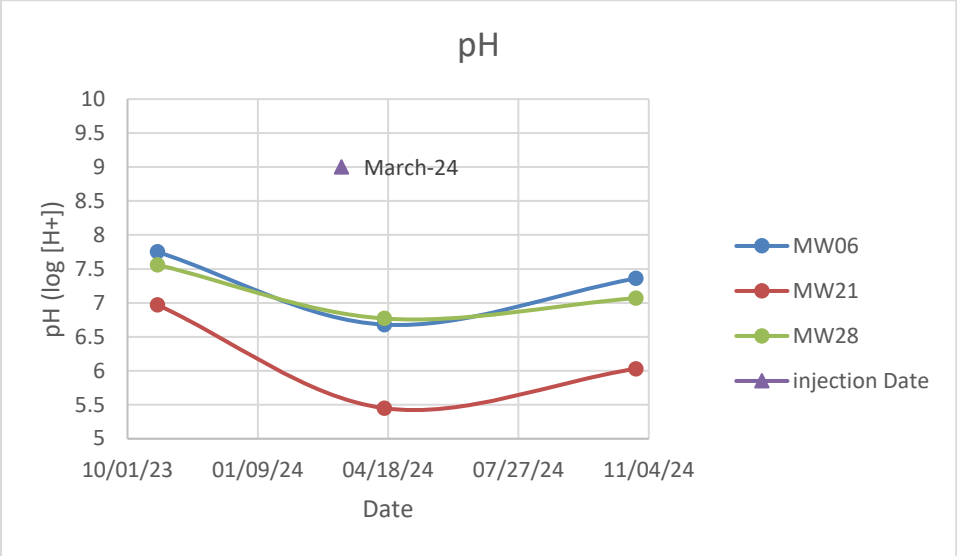


- **Iron**: As shown in the chart below, iron concentrations increased at observation monitoring well MW21 approximately 30 days after the March 2024 injection event but declined thereafter. There was no substantial change in the iron concentrations at observation monitoring wells MW06 and MW28 approximately 30 and 225 days after the March 2024 injection event. The temporary increase in the iron concentrations at monitoring well MW21 compared to their baseline concentrations suggested ferrous and ferric iron generated from the oxidation of ZVI migrated from the injection well to the observation monitoring well.



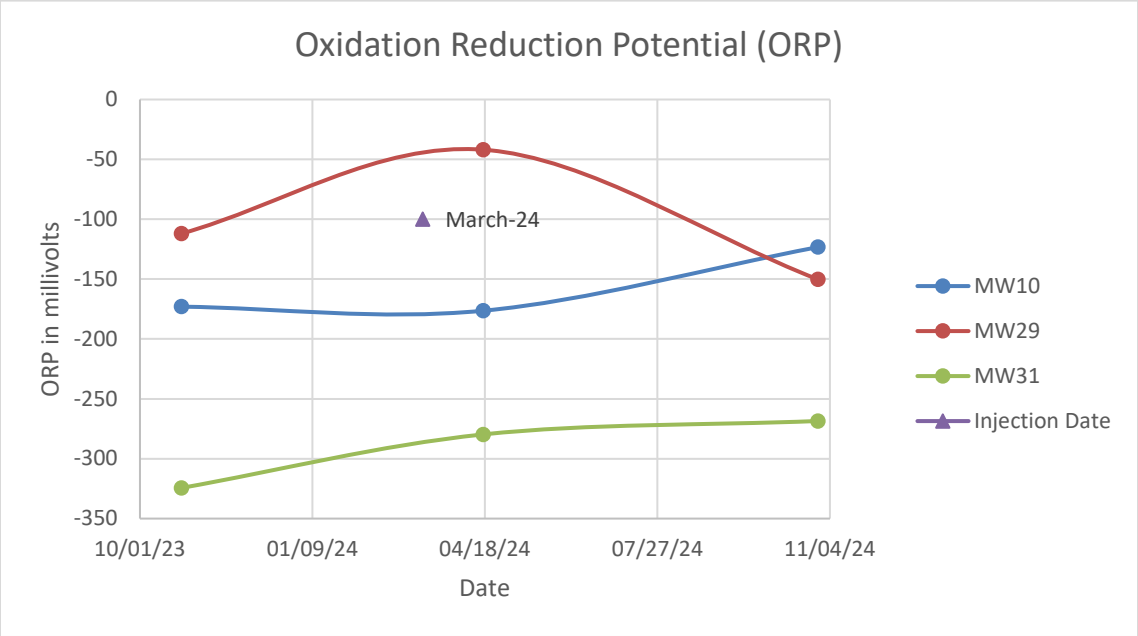
- **pH**: As shown in the chart below, pH readings were stable at observation monitoring wells MW06, MW21, and MW28 after the March 2024 injection events. In addition, the readings were well below what was anticipated for the pH reading (9 to 11) due to the addition of ZVI to the groundwater. This condition suggests hydrogen released from the reaction of ZVI and water may

not have been available to degrade CVOCs by β-elimination or the hydrogen was captured by natural reductant demand in the aquifer.

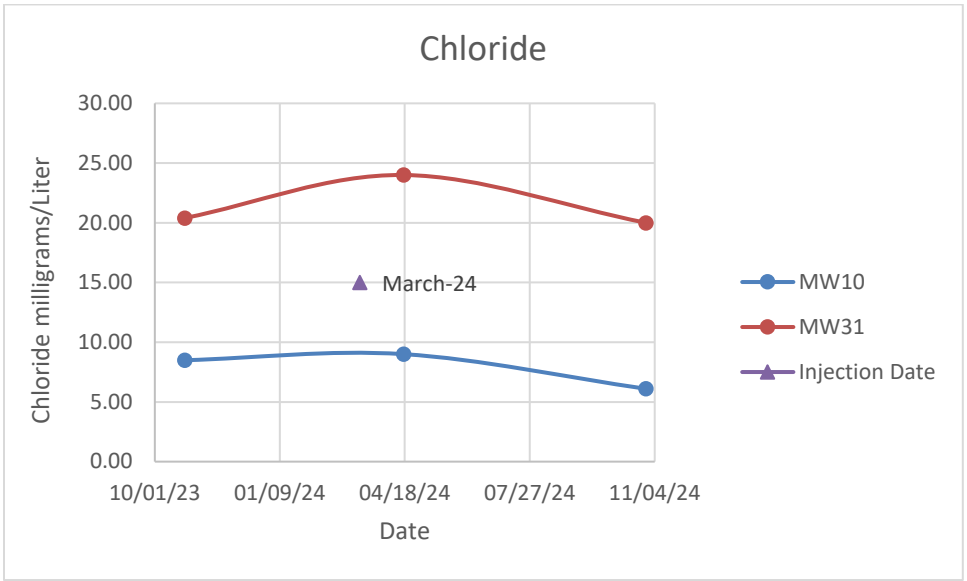


Deep Water-Bearing Zone: For the deep water-bearing zone, changes in geochemical parameters at observation monitoring wells MW10 and MW31 were used to assess the performance of injectate added to deep zone injection wells IW29 and IW32. Observation monitoring well MW29 was used to evaluate the performance of the injectate added to deep zone injection well IW22 using ORP readings only since groundwater samples from the monitoring wells were not analyzed for chloride, iron, and sulfate. Geochemical parameters collected during the October 25, 2023, baseline sampling event were compared to those collected during the events conducted on April 17 and October 25, 2024. Geochemical parameters were not collected in injection wells because groundwater samples were collected using passive diffusive samplers, which only allowed analyzing the groundwater samples for CVOCs.

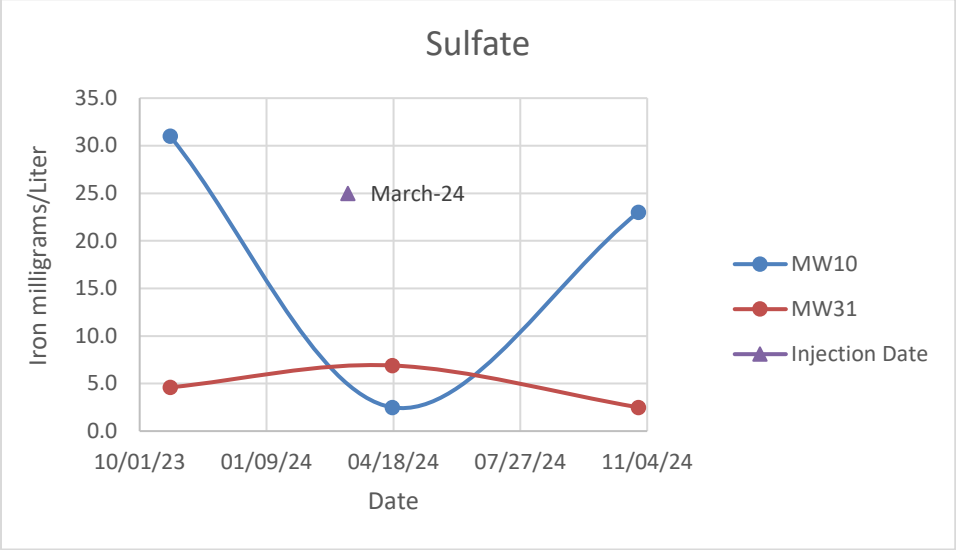
- **Oxidation Reduction Potential**: As shown in the chart below, ORP readings at all observation monitoring wells MW10, MW29, and MW31 were relatively stable between October 25, 2023, and October 20, 2024. A continuing decline in ORP readings over time, and ORP readings of less than -250 millivolts, would suggest hydrogenolysis and β-elimination are occurring, which is conducive to the degradation of VC. However, these conditions were not observed at observation monitoring wells.



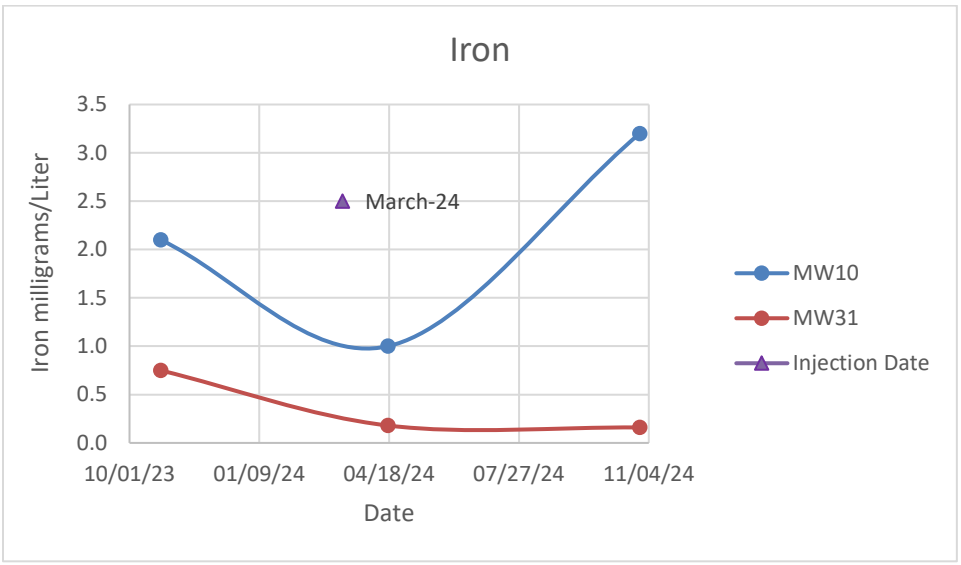
- **Chloride**: As shown in the chart below, chloride concentrations remained relatively stable at observation monitoring wells MW10 and MW31 between October 25, 2023, and October 20, 2024. A sustained increase in chloride with time would indicate the ongoing dehalogenation of CVOCs in the groundwater. However, these conditions were not observed at observation monitoring wells.



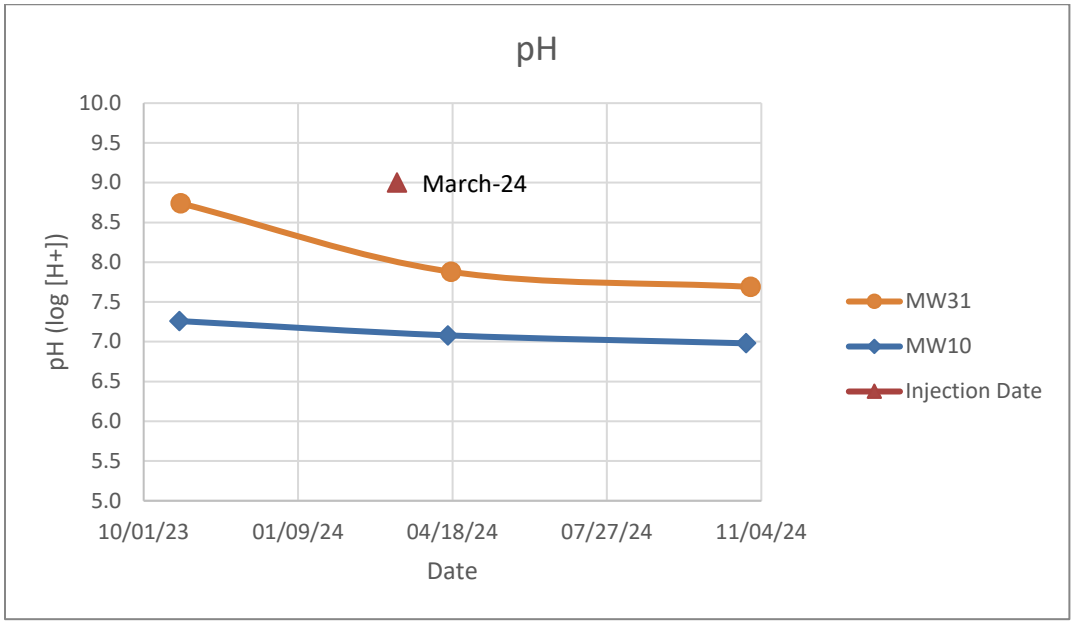
- **Sulfate**: As shown in the chart below, approximately 30 days after the injection event, sulfate concentrations decreased at observation monitoring well MW10 compared to the baseline condition but increased 225 days after the injection event. This condition suggests that temporarily ferrous iron generated from the oxidation of ZVI in the groundwater migrated from the injection wells to the observation monitoring well, forming FeS. The relative stability of the sulfate concentrations at monitoring well MW31 suggests that ferrous iron did not reach the monitoring well.



- **Iron**: As shown in the chart below, iron concentrations increased at observation monitoring well MW10 approximately 225 days after the March 2024 injection event. Compared to the baseline concentrations, there was no substantial change in the iron concentrations at observation monitoring wells MW31 approximately 30 and 225 days after the March 2024 injection event. The increase in the iron concentrations at monitoring well MW10 compared to their baseline concentrations suggested that dissolved iron in the groundwater migrated from the injection well to the observation monitoring well. The relative stability of iron concentrations at observation monitoring well MW31 compared to baseline conditions suggests that dissolved iron did not reach the observation monitoring well.



- **pH**: As shown in the chart below, pH readings were stable at observation monitoring wells MW10 and MW31 after the March 2024 injection events. In addition, the readings were well below what was anticipated for the pH reading (9 to 11) due to the addition of ZVI to the groundwater. This condition suggests hydrogen released from the reaction of ZVI and water may not have been available to degrade CVOCs by β-elimination or the hydrogen was captured by natural reductant demand in the aquifer.



CONCLUSIONS

The pilot test introduced EDS-ER and ZVI in the shallow- and deep-water bearing zones at the Site to prevent the generation of cis-1,2-DCE and VC from the degradation of PCE and to degrade existing high concentrations of cis-1,2-DCE and VC. SoundEarth evaluated the efficacy of the pilot test based on changes in VC concentrations and the geochemistry of the groundwater over time. In theory, EDS-ER and ZVI introduced into the groundwater should create anaerobic conditions, causing a substantial decrease in OPR and an increase in pH readings and leading to the generation and degradation of cis-1,2-DCE and VC by hydrogenolysis. An increase in pH, chloride, and total iron concentrations and a decrease in sulfate concentrations indicate that β-elimination is occurring (ESTCP 2018a, 2018b).

Results from the pilot test monitoring showed that concentrations of VC remained stable throughout the tenure of the pilot test, indicating that hydrogenolysis and β-elimination were not occurring in the groundwater. The absence of substantial and sustained changes in the geochemical indicators during the pilot test supports this conclusion. The following conditions may have led to the failure of the pilot test:

- EDS-ER and ZVI radius of influence, the maximum distance from the injection point where the injectate can be detected, may have been limited by the permeability and effective porosity of the aquifer, injection rate, and fluid properties of the injectate.
- Heterogeneity or preferential flow within the water-bearing zone bypassed significant portions of the contaminated groundwater.
- The hydrologic characteristic of the water-bearing zone may have limited the distribution of EDS-ER and ZVI. In the case of the lower water-bearing zone, with an average seepage velocity of greater than 1 foot per day, the residence time of injectate in contact with contaminated groundwater may have been short-lived.
- EDS-ER and ZVI injected in the groundwater failed to generate methanogenic conditions in the water-bearing zones that are conducive to the degradation of VC (ORP reading less than -250 millivolts). These conditions may have occurred because the indigenous microbial population is not capable of complete reductive dechlorination utilizing the EDS-ER in support of biological mediated degradation.
- The combination of reactions between ZVI and natural in-situ oxidants (oxygen, water, natural organic matter, some minerals) comprises a natural reductant demand, which may have competed with the preferred reaction of ZVI with CVOCs.

VC typically degrades under methanogenic conditions with OPR readings of less than -250 millivolts; this condition was not observed during post-pilot test monitoring events.

Attachments: Figure 1, Site Boundary Map
Figure 2, Pilot Scale Injection Plan for Shallow Water-Bearing Zone
Figure 3, Pilot Scale Injection Plan for Deep Water-Bearing Zone
Table 1, Groundwater Analytical Results for CVOCs
Table 2, Natural Attenuation Parameters
Table 3, Geochemical and Water Quality Parameters
A, Temporal Analyses

REFERENCES

SoundEarth Strategies, Inc. (SoundEarth). 2024. *Groundwater Pilot Test Work Plan Addendum, Plastic Sales and Service Site, 6870 Woodlawn Avenue Northeast, Seattle, Washington.* Prepared for Washington State Department of Ecology. January 30.

Washington State Department of Ecology (Ecology). 2005. *Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation.* Publication No. 05-09-091. July.

Shi, Zhenqing, Fan, Dimin, Johnson, Richard L., Tratnyek, Paul G., Nurmi, James T., Wu, Yuxin, and Williams, Kenneth H. (Shi et al.) 2015. "Methods for characterizing the fate and effects of nano zerovalent iron during groundwater remediation." *Journal of Contaminant Hydrology* 181: 17-35. October.

U.S. Department of Defense Environmental Security Technology Certification Program (ESTCP). 2018a. *Analysis of Long-Term Performance of Zero-Valent Iron Applications*. ESTCP Project ER-20589. December.

_____. 2018b. *Fact Sheet: Long-Term Performance Monitoring of Zero-Valent Iron Sites.* ESTCP Project #ER-201589-PR. December.

FIGURES

1/3/2025

P:\0651 HEARTHSTONE\0651-002 HEARTHSTONE - WOODLAWN EAST\TECHNICAL\CAD\20241202024 PILOT TEST TECH MEMO\0651-002_2024_PP.DWG

LEGEND

- CATCH BASIN
- MANHOLE
- SHALLOW-ZONE MONITORING WELL
- DEEP-ZONE MONITORING WELL
- DEEP DEWATERING WELL
- SHALLOW INJECTION WELL
- DEEP INJECTION WELL
- DECOMMISSIONED WELL
- DIRECT-PUSH BORING (GEOENGINEERS 2004)
- DIRECT-PUSH BORING (GEOENGINEERS 2002/2003)
- DIRECT-PUSH BORING (FARALLON 2004)
- DIRECT-PUSH BORING (FARALLON 2006/2007)
- DIRECT-PUSH BORING (FARALLON 2010)
- DIRECT-PUSH BORING (SOUNDEARTH 2008)
- HOLLOW-STEM AUGER (SOUNDEARTH 2009)
- POST-ELECTRICAL RESISTANCE HEATING BORING LOCATION
- SW — STORMWATER LINE
- GAS — GAS LINE
- SS — SANITARY SEWER LINE
- W — WATER LINE
- OHP — OVERHEAD POWER LINE
- PROPERTY BOUNDARY LINE
- PARCEL BOUNDARY
- SITE BOUNDARY
- FD — FLOOR DRAIN
- UST — UNDERGROUND STORAGE TANK

NOTES:

1. FIGURE DERIVED FROM BASEMAP BY FARALLON CONSULTING, 2010.

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0 20 40

6900 EAST GREEN LAKE WAY NORTH

NORTH-ADJOINING PROPERTY
6869 WOODLAWN AVENUE NORTHEAST

6857 WOODLAWN AVENUE NORTHEAST

6900 WOODLAWN AVENUE NORTHEAST

SOUTH-ADJOINING PROPERTY
6565 4TH AVENUE NORTHEAST

HEARTHSTONE PROPERTY
6850 WOODLAWN AVENUE NORTHEAST

FORMER LAUNDRY PROPERTY

FORMER YASUKO PROPERTY

SINGLE-FAMILY LOT

APARTMENTS

FORMER STODDARD SOLVENT UST

FORMER UST FILL PORT

2ND AVENUE NORTHEAST

4TH AVENUE NORTHEAST

WOODLAWN AVENUE NORTHEAST

LATONA AVENUE NORTHEAST

WESTERN ALLEY

SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

PLASTIC SALES & SERVICE SITE
6870 WOODLAWN AVENUE NORTHEAST
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0651-002

FIGURE 1
SITE BOUNDARY MAP

1/16/2025

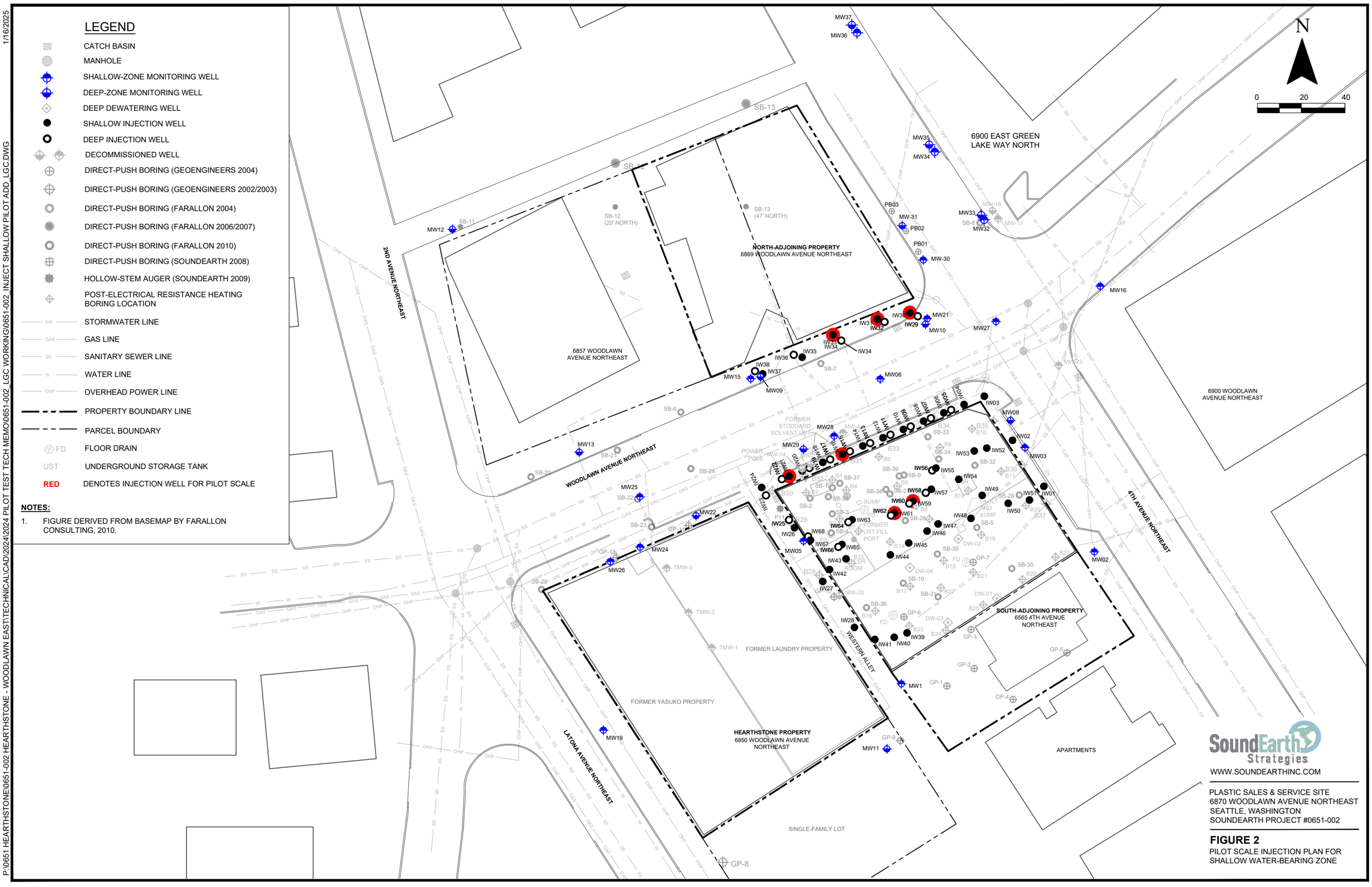
P:\0651 HEARTHSTONE\0651-002 HEARTHSTONE - WOODLAWN EAST\TECHNICAL\CAD\20241202 PILOT TEST TECH MEMO\0651-002_LGC WORKING\0651-002_INJECT SHALLOW PILOT ADD_LGC.DWG

LEGEND

- CATCH BASIN
- MANHOLE
- SHALLOW-ZONE MONITORING WELL
- DEEP-ZONE MONITORING WELL
- DEEP DEWATERING WELL
- SHALLOW INJECTION WELL
- DEEP INJECTION WELL
- DECOMMISSIONED WELL
- DIRECT-PUSH BORING (GEOENGINEERS 2004)
- DIRECT-PUSH BORING (GEOENGINEERS 2002/2003)
- DIRECT-PUSH BORING (FARALLON 2004)
- DIRECT-PUSH BORING (FARALLON 2006/2007)
- DIRECT-PUSH BORING (FARALLON 2010)
- DIRECT-PUSH BORING (SOUNDEARTH 2008)
- HOLLOW-STEM AUGER (SOUNDEARTH 2009)
- POST-ELECTRICAL RESISTANCE HEATING BORING LOCATION
- SW — STORMWATER LINE
- GAS — GAS LINE
- SS — SANITARY SEWER LINE
- W — WATER LINE
- OHP — OVERHEAD POWER LINE
- PROPERTY BOUNDARY LINE
- PARCEL BOUNDARY
- FD — FLOOR DRAIN
- UST — UNDERGROUND STORAGE TANK
- **RED** — DENOTES INJECTION WELL FOR PILOT SCALE

NOTES:

1. FIGURE DERIVED FROM BASEMAP BY FARALLON CONSULTING, 2010.



SoundEarth Strategies

WWW.SOUNDEARTHINC.COM

PLASTIC SALES & SERVICE SITE
6870 WOODLAWN AVENUE NORTHEAST
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0651-002

FIGURE 2
PILOT SCALE INJECTION PLAN FOR SHALLOW WATER-BEARING ZONE

1/16/2025

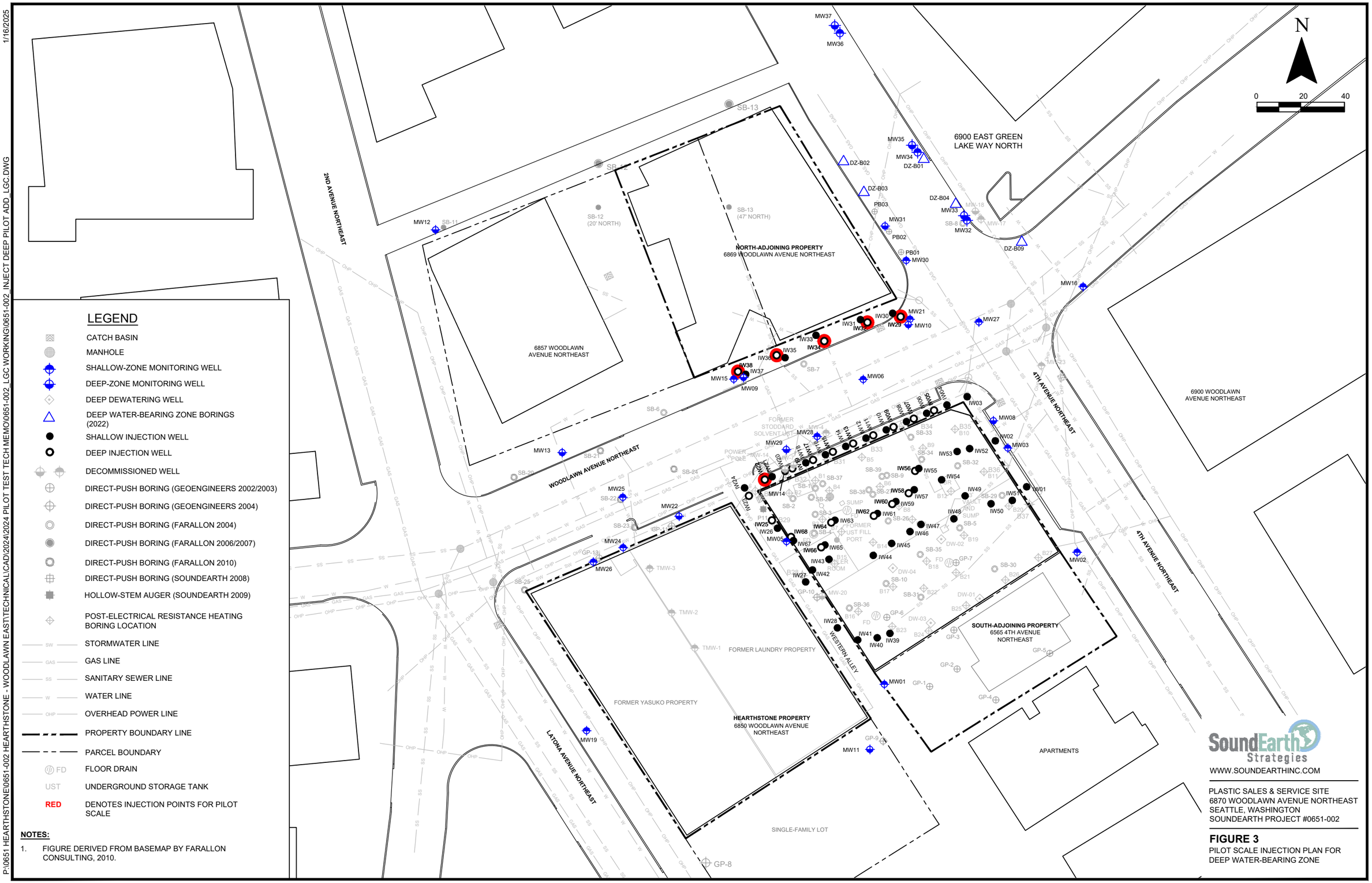
P:\0651 HEARTHSTONE\0651-002 HEARTHSTONE - WOODLAWN EAST\TECHNICAL\CAD\2024\2024 PILOT TEST TECH MEMO\0651-002_LGC WORKING\0651-002_LGC_INJECT DEEP PILOT ADD_LGC.DWG

LEGEND

- CATCH BASIN
- MANHOLE
- SHALLOW-ZONE MONITORING WELL
- DEEP-ZONE MONITORING WELL
- DEEP DEWATERING WELL
- DEEP WATER-BEARING ZONE BORINGS (2022)
- SHALLOW INJECTION WELL
- DEEP INJECTION WELL
- DECOMMISSIONED WELL
- DIRECT-PUSH BORING (GEOENGINEERS 2002/2003)
- DIRECT-PUSH BORING (GEOENGINEERS 2004)
- DIRECT-PUSH BORING (FARALLON 2004)
- DIRECT-PUSH BORING (FARALLON 2006/2007)
- DIRECT-PUSH BORING (FARALLON 2010)
- DIRECT-PUSH BORING (SOUNDEARTH 2008)
- HOLLOW-STEM AUGER (SOUNDEARTH 2009)
- POST-ELECTRICAL RESISTANCE HEATING BORING LOCATION
- SW — STORMWATER LINE
- GAS — GAS LINE
- SS — SANITARY SEWER LINE
- W — WATER LINE
- OHP — OVERHEAD POWER LINE
- PROPERTY BOUNDARY LINE
- PARCEL BOUNDARY
- FD — FLOOR DRAIN
- UST — UNDERGROUND STORAGE TANK
- **RED** — DENOTES INJECTION POINTS FOR PILOT SCALE

NOTES:

1. FIGURE DERIVED FROM BASEMAP BY FARALLON CONSULTING, 2010.



SoundEarth Strategies
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PLASTIC SALES & SERVICE SITE
6870 WOODLAWN AVENUE NORTHEAST
SEATTLE, WASHINGTON
SOUNDEARTH PROJECT #0651-002

FIGURE 3
PILOT SCALE INJECTION PLAN FOR DEEP WATER-BEARING ZONE

TABLES

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
Shallow Water-Bearing Zone Wells									
MW01	MW-1	GeoEngineers	10/30/03	--	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	MW1-060206	Farallon	06/02/06	16.42	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	MW1-112008	Farallon	11/20/08	16.48	1.5	< 0.20	< 0.20	< 0.20	< 0.20
	MW1-050410	Farallon	05/04/10	11.50	1.8	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20140910	SoundEarth	09/10/14	13.50	1.6	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20181024	SoundEarth	10/24/18	11.50	0.85	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20200129	SoundEarth	01/29/20	14.50	1.8	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20200421	SoundEarth	04/21/20	15.50	1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20200721	SoundEarth	07/21/20	15.50	1.3	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20201020	SoundEarth	10/20/20	15.50	2.1	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20210128	SoundEarth	01/28/21	15.50	1.4	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20210420	SoundEarth	04/20/21	15.00	1.2	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20210727	SoundEarth	07/27/21	15.50	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20211012	SoundEarth	10/12/21	16.00	1.3	< 0.20	< 0.20	< 0.20	< 0.10
	MW01-20220427	SoundEarth	04/27/22	15.00	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20221117	SoundEarth	11/17/22	15.00	1.3	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20230419	SoundEarth	04/19/23	15.00	1.2	< 0.20	< 0.20	< 0.20	< 0.20
	MW01-20231025	SoundEarth	10/25/23	15.50	1.4	< 0.20	< 0.20	< 0.20	< 0.20
MW02	MW-2	GeoEngineers	10/30/03	--	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
	MW2-060106	Farallon	06/01/06	17.50	< 0.20	**5.5**	< 0.20	< 0.20	< 0.20
	MW2-111908	Farallon	11/19/08	17.31	**6.8**	4.6	< 0.20	< 0.20	< 0.20
	MW2-050410	Farallon	05/04/10	12.50	**9.5**	3.5	< 0.20	< 0.20	< 0.20
	MW02-20140910	SoundEarth	09/10/14	11.50	4.0	0.49	< 0.20	< 0.20	< 0.20
	MW02-20181025	SoundEarth	10/25/18	12.50	1.7	0.61	< 0.20	< 0.20	< 0.20
	MW02-20200129	SoundEarth	01/29/20	13.00	1.1	0.80	< 0.20	< 0.20	< 0.20
	MW02-20200421	SoundEarth	04/21/20	13.00	1.3	0.53	< 0.20	< 0.20	< 0.20
	MW02-20200721	SoundEarth	07/21/20	13.00	2.0	1.1	< 0.20	< 0.20	< 0.20
	MW02-20201020	SoundEarth	10/20/20	13.00	2.7	1.2	< 0.20	< 0.20	< 0.20
	MW02-20210128	SoundEarth	01/28/21	13.00	1.4	0.63	< 0.20	< 0.20	< 0.20
	MW02-20210420	SoundEarth	04/20/21	12.00	1.4	0.47	< 0.20	< 0.20	< 0.20
	MW02-20210727	SoundEarth	07/27/21	13.25	1.6	0.58	< 0.20	< 0.20	< 0.20
	MW02-20211012	SoundEarth	10/12/21	15.00	1.7	0.68	< 0.20	< 0.20	< 0.10
	MW02-20220427	SoundEarth	04/27/22	15.00	0.95	0.54	< 0.20	< 0.20	< 0.20
	MW02-20221117	SoundEarth	11/17/22	13.00	1.6	0.70	< 0.20	< 0.20	< 0.20
	MW02-20230419	SoundEarth	04/19/23	12.00	1.0	0.72	< 0.20	< 0.20	< 0.20
	MW02-20231025	SoundEarth	10/25/23	12.00	1.9	1.3	< 0.20	< 0.20	< 0.20
MW03	MW-3	GeoEngineers	10/30/03	--	**170**	< 2.0	< 2.0	< 2.0	< 2.0
	MW3-060106	Farallon	06/01/06	17.56	**150**	1.1	< 1.0	< 1.0	< 1.0
	MW3-111908	Farallon	11/19/08	17.60	**230**	1.6	2.0	< 1.0	< 1.0
	MW3-050410	Farallon	05/04/10	12.50	**150**	< 1.0	< 1.0	< 1.0	< 1.0
	MW03-20140910	SoundEarth	09/10/14	8.50	**64**	0.58	0.79	< 0.20	< 0.20
	MW03-20181025	SoundEarth	10/25/18	12.50	**54**	0.61	< 0.40	< 0.40	< 0.40
	MW03-20200129	SoundEarth	01/29/20	11.00	< 0.40	< 0.40	**44**	0.57	**16**
	MW03-20200421	SoundEarth	04/21/20	12.50	< 0.20	0.20	6.3	0.55	**7.4**
	MW03-20200720	SoundEarth	07/20/20	12.50	< 0.20	0.36	13	0.65	**13**
	MW03-20201020	SoundEarth	10/20/20	12.50	< 0.20	0.57	13	0.48	**7.3**
	MW03-20210128	SoundEarth	01/28/21	12.50	< 0.20	0.68	7.8	0.42	**4.2**
	MW03-20210420	SoundEarth	04/20/21	13.00	< 0.20	0.61	7.0	0.54	**3.4**
	MW03-20210727	SoundEarth	07/27/21	13.30	< 0.20	0.45	2.1	0.31	**2.1**
	MW03-20211012	SoundEarth	10/12/21	15.00	< 0.20	0.42	2.7	0.23	**1.8**
	MW03-20220425P*	SoundEarth	04/25/22	12.00	< 0.20	0.54	4.1	0.36	**2.7**
	MW03-20220427	SoundEarth	04/27/22	15.00	< 0.20	0.81	6.6	0.35	**2.6**
	MW03-20221114P*	SoundEarth	11/14/22	12.00	< 0.20	0.64	5.2	< 0.20	**1.9**
	MW03-20221117	SoundEarth	11/17/22	13.00	< 0.20	1.2	5.6	< 0.20	**1.9**
	MW03-20230419	SoundEarth	04/19/23	12.00	0.88	4.0	5.4	< 0.20	**1.1**
	MW03-20231025	SoundEarth	10/25/23	11.00	**22**	**6.9**	**27**	0.21	**2.3**
	MW03-20231113	SoundEarth	11/13/23	11.00	**14**	4.1	**21**	< 0.20	**1.6**
	MW03-20240416	SoundEarth	04/16/24	13.00	2.7	3.3	**19**	< 0.20	**1.8**
	MW03-20241028	SoundEarth	10/28/24	12.00	**6.7**	3.9	6.0	< 0.20	**0.50**
MW04	MW-4	GeoEngineers	10/30/03	--	**2,100**	**220**	**92**	< 2.0	**20**
	MW4-080504	Farallon	08/05/04	16.00	**860**	**1,200**	**250**	< 10	**68**
	MW4-060206	Farallon	06/02/06	16.08	**1,100**	**730**	**590**	< 10	**170**
	MW4-042007	Farallon	04/20/07	14.95	**3,100**	**720**	**940**	< 20	**160**
	MW4-112008	Farallon	11/20/08	15.61	**10,000**	**640**	**1,100**	< 50	**130**
	MW4-050510	Farallon	05/05/10	11.00	**10,000**	**1,000**	**1,600**	< 50	**370**
	MW04-20140910	SoundEarth	09/10/14	12.50	**28,000**	**3,400**	**3,800**	< 200	**920**
	Monitoring Well Decommissioned								
MW05	MW-5	GeoEngineers	10/30/03	--	**270**	**46**	< 2.0	< 2.0	< 2.0
	MW5-060106	Farallon	06/01/06	15.45	**54**	**9.6**	3.3	< 0.40	< 0.40
	MW5-20080328	SoundEarth	03/28/08	--	**19**	**110**	**40**	< 1.0	**2.8**
	MW5-112008	Farallon	11/20/08	15.47	**86**	**67**	**37**	1.4	**5.5**
	MW5-050410	Farallon	05/04/10	10.00	**82**	**34**	**27**	0.44	**0.88**
	MW05-20140911	SoundEarth	09/11/14	13.50	**71**	**22**	5.6	0.27	< 0.20
	MW05-20190207	SoundEarth	02/07/19	14.00	**36**	**7.6**	1.7	< 0.20	< 0.20
	MW05-20200128	SoundEarth	01/28/20	13.50	3.4	1.4	**130**	< 1.0	**10**
	MW05-20200421	SoundEarth	04/21/20	14.50	2.3	1.2	**170**	1.3	**29**
	MW05-20200720	SoundEarth	07/20/20	14.50	1.1	< 1.0	**220**	1.6	**56**
	MW05-20201020	SoundEarth	10/20/20	14.50	1.1	1.1	**200**	2.1	**83**
	MW05-20210128	SoundEarth	01/28/21	14.50	0.8	< 0.8	**69**	1.6	**92**
	MW05-20210421	SoundEarth	04/21/21	13.75	< 0.40	0.43	**45**	1.1	**60**
	MW05-20210727	SoundEarth	07/27/21	14.30	< 0.40	0.70	**28**	0.91	**62**
	MW05-20211013	SoundEarth	10/13/21	15.00	< 0.80	< 0.80	10	< 0.80	**56**
	MW05-20220425P*	SoundEarth	04/25/22	14.00	< 0.20	0.50	3.5	0.27	**31**
	MW05-20220427	SoundEarth	04/27/22	15.00	< 0.20	< 0.20	0.81	< 0.20	**3.4**
	MW05-20221114P*	SoundEarth	11/14/22	14.00	< 0.20	0.50	1.4	0.26	**26**
	MW05-20221117	SoundEarth	11/17/22	14.00	< 0.20	0.46	1.0	< 0.20	**9.4**
	MW05-20230420	SoundEarth	04/20/23	14.50	< 0.20	0.24	0.54	< 0.20	**4.1**
	MW05-20231026	SoundEarth	10/26/23	14.00	< 0.20	0.35	0.72	< 0.20	**1.7**
	MW05-20240416	SoundEarth	04/16/24	14.00	< 0.20	< 0.20	0.50	< 0.20	**0.74**
	MW05-20241028	SoundEarth	10/28/24	15.00	< 0.20	< 0.20	0.68	< 0.20	**0.75**
MTCA Cleanup Levels for Groundwater					**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**
Commercial Remediation Levels for Groundwater					**120[4]**	**12[4]**	**NE**	**650[4]**	**1.6[4]**
Roadway Excavation Remediation Levels for Groundwater					**760[4]**	**40[4]**	**NE**	**4,200[4]**	**9.9[4]**

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MW06	MW-6	GeoEngineers	11/08/04	--	**29**	**18**	11	< 2.0	**6.0**
	MW6-050410	Farallon	05/04/10	14.50	**4,100**	**330**	**440**	< 20	**110**
	MW06-20141007	SoundEarth	10/07/14	17.50	**10,000**	**450**	**320**	< 50	**72**
	MW06-20190207	SoundEarth	02/07/19	17.50	**1,800**	**510**	**600**	< 50	**170**
	MW06-20200128	SoundEarth	01/28/20	17.00	**38**	**130**	**210**	< 0.20	**33**
	MW06-20200421	SoundEarth	04/21/20	17.50	1.2	**8.7**	**42**	0.89	**26**
	MW06-20200721	SoundEarth	07/21/20	17.50	1.1	**10**	**32**	0.86	**25**
	MW06-20201020	SoundEarth	10/20/20	17.50	1.7	**29**	**63**	0.90	**36**
	MW06-20210128	SoundEarth	01/28/21	17.50	2.4	**30**	**74**	1.0	**59**
	MW06-20210420	SoundEarth	04/20/21	18.00	1.6	**27**	**120**	1.6	**160**
	MW06-20210727	SoundEarth	07/27/21	14.00	0.93	**8.8**	14	0.45	**10**
	MW06-20211012	SoundEarth	10/12/21	17.50	0.33	2.0	**18**	0.35	**14**
	MW06-20220426	SoundEarth	04/26/22	18.00	**11.00**	**27.0**	**20**	0.68	**13**
	MW06 DUP) MW99-2022042(	SoundEarth	04/26/22	18.00	**5.30**	**16.0**	**20**	0.67	**16**
	MW06-20221115	SoundEarth	11/15/22	18.00	0.67	**7.4**	**20**	0.42	**20**
	MW06 DUP) MW99-2022111!	SoundEarth	11/15/22	18.00	0.57	**5.3**	**17**	0.39	**17**
	MW06-20230418	SoundEarth	04/18/23	18.00	**17**	**40**	**51**	< 0.80	**85**
	MW06 DUP) MW99-2023041!	SoundEarth	04/18/23	18.00	**14**	**35**	**50**	< 0.80	**98**
	MW06-20231024	SoundEarth	10/24/23	17.50	**17**	**33**	**48**	< 0.80	**72**
	MW06 DUP) MW99-2023102(	SoundEarth	10/24/23	17.50	**17**	**35**	**51**	< 0.80	**80**
	MW06-20240415	SoundEarth	04/15/24	18.00	2.1	**6.9**	**40**	0.49	**32**
	MW06 DUP) MW99-2024041!	SoundEarth	04/15/24	18.00	1.9	**5.5**	**42**	0.49	**72**
	(Re-Analysis) MW06-2024041!	SoundEarth	04/15/24	18.00	2.8	**8.5**	**50**	0.53	**53**
	MW06-20241025	SoundEarth	10/25/24	18.00	0.98	1.8	**19**	0.21	**23**
	MW06 DUP) MW99-2024102!	SoundEarth	10/25/24	18.00	0.61	1.4	15	< 0.20	**13**
MW15	MW15-060106	Farallon	06/01/06	16.12	0.22	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-112008	Farallon	11/20/08	13.20	0.26	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-050410	Farallon	05/04/10	12.50	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20140910	SoundEarth	09/10/14	17.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20181022	SoundEarth	10/22/18	12.50	0.78	< 0.20	0.87	< 0.20	< 0.20
	MW15-20200128	SoundEarth	01/28/20	12.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20200421	SoundEarth	04/21/20	10.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20200721	SoundEarth	07/21/20	10.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20201019	SoundEarth	10/19/20	10.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20210127	SoundEarth	01/27/21	10.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20210420	SoundEarth	04/20/21	12.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20210726	SoundEarth	07/26/21	13.50	0.63	0.32	0.62	< 0.20	< 0.20
	MW15-20211012	SoundEarth	10/12/21	15.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10
	MW15-20220426	SoundEarth	04/26/22	15.00	< 0.20	< 0.20	0.25	< 0.20	< 0.20
	MW15-20221116	SoundEarth	11/16/22	13.50	< 0.20	< 0.20	< 0.20	< 0.20	**0.26**
	MW15-20230419	SoundEarth	04/19/23	12.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20231025	SoundEarth	10/25/23	16.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW15-20240415	SoundEarth	04/15/24	10.50	< 2.0	< 2.0	13	< 2.0	**1.6**
	MW15-20241028	SoundEarth	10/28/24	12.50	< 0.20	< 0.20	2.4	< 0.20	**0.60**
MW16	MW16-060106	Farallon	06/01/06	17.45	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW16-111908	Farallon	11/19/08	17.60	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW16-050510	Farallon	05/05/10	12.50	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW16-20140909	SoundEarth	09/09/14	12.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW16-20181022	SoundEarth	10/22/18	12.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW17	MW17-060106	Farallon	06/01/06	17.19	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	Monitoring Well Decommissioned								
MW19	MW17-20080328	SoundEarth	03/28/08	--	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20
	MW19-20090311	SoundEarth	03/11/09	--	< 1.0	< 1.0	< 1.0	< 1.0	< 0.20
	MW19-050310	Farallon	05/03/10	15.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW19-20140909	SoundEarth	09/09/14	17.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW19-20181024	SoundEarth	10/24/18	15.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW21	MW21-112008	Farallon	11/20/08	21.74	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW21-050410	Farallon	05/04/10	19.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW21-20140909	SoundEarth	09/09/14	19.00	< 0.20	< 0.20	< 0.20	< 0.20	**0.73**
	MW21-20181022	SoundEarth	10/22/18	19.00	< 0.20	< 0.20	1.7	< 0.20	**0.37**
	MW21-20200129	SoundEarth	01/29/20	19.00	0.67	< 0.20	8.0	< 0.20	**1.9**
	MW21-20200421	SoundEarth	04/21/20	19.00	< 0.20	< 0.20	3.9	< 0.20	**3.0**
	MW21-20200722	SoundEarth	07/22/20	19.00	< 0.20	< 0.20	4.4	< 0.20	**2.3**
	MW21-20201020	SoundEarth	10/20/20	19.00	0.22	< 0.20	2.6	< 0.20	**4.5**
	MW21-20210128	SoundEarth	01/28/21	19.00	< 0.20	< 0.20	2.0	< 0.20	**2.8**
	MW21-20210420	SoundEarth	04/20/21	19.00	< 0.20	< 0.20	1.7	< 0.20	**2.4**
	MW21-20210727	SoundEarth	07/27/21	19.00	< 0.20	< 0.20	0.23	< 0.20	**0.56**
	MW21-20211012	SoundEarth	10/12/21	18.00	< 0.20	< 0.20	0.29	< 0.20	**0.67**
	MW21-20220426	SoundEarth	04/26/22	19.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW21-20221117	SoundEarth	11/17/22	19.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW21-20230420	SoundEarth	04/20/23	19.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW21-20231025	SoundEarth	10/25/23	19.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW21-20240416	SoundEarth	04/16/24	19.00	< 2.0	< 2.0	2.0	< 2.0	**0.35**
	MW21-20241024	SoundEarth	10/24/24	17.00	< 0.20	< 0.20	0.60	< 0.20	< 0.20
MW23	MW23-112008	Farallon	11/20/08	18.15	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW23-050410	Farallon	05/04/10	15.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	Monitoring Well Decommissioned								
MTCA Cleanup Levels for Groundwater					**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**
Commercial Remediation Levels for Groundwater					**120[4]**	**12[4]**	**NE**	**650[4]**	**1.6[4]**
Roadway Excavation Remediation Levels for Groundwater					**760[4]**	**40[4]**	**NE**	**4,200[4]**	**9.9[4]**

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MW24	MW18-20080328	SoundEarth	03/28/08	--	**650**	< 10	< 10	< 10	< 2.0
	MW24-112008	Farallon	11/20/08	15.25	**360**	3.4	< 2.0	< 2.0	< 2.0
	MW24-20090304	Farallon	03/04/09	--	**290**	< 10	< 10	< 10	< 2.0
	MW24-050510	Farallon	05/05/10	13.00	**40**	0.42	< 0.20	< 0.20	< 0.20
	MW24-20140910	SoundEarth	09/10/14	15.00	**17**	0.27	< 0.20	< 0.20	< 0.20
	MW24-20181024	SoundEarth	10/24/18	13.00	**20**	0.24	< 0.20	< 0.20	< 0.20
	MW24-20200129	SoundEarth	01/29/20	14.00	1.2	< 0.20	2.4	< 0.20	< 0.20
	MW24-20200421	SoundEarth	04/21/20	15.50	1.3	< 0.20	2.7	< 0.20	< 0.20
	MW24-20200721	SoundEarth	07/21/20	15.50	1.1	< 0.20	6.0	< 0.20	**0.25**
	MW24-20201019	SoundEarth	10/19/20	15.50	0.92	< 0.20	8.6	< 0.20	**0.43**
	MW24-20210128	SoundEarth	01/28/21	15.50	0.64	< 0.20	1.7	< 0.20	< 0.20
	MW24-20210420	SoundEarth	04/20/21	15.00	0.47	< 0.20	3.8	< 0.20	**0.30**
	MW24-20210726	SoundEarth	07/26/21	15.00	0.39	< 0.20	5.4	< 0.20	**0.49**
	MW24-20211012	SoundEarth	10/12/21	15.00	0.35	< 0.20	5.4	< 0.20	**0.65**
	MW24-20220427	SoundEarth	04/27/22	15.00	0.22	< 0.20	3.0	< 0.20	**0.64**
	MW24-20221116	SoundEarth	11/16/22	15.00	0.23	< 0.20	0.38	< 0.20	**2.5**
	MW24-20230419	SoundEarth	04/19/23	14.00	< 0.20	< 0.20	0.24	< 0.20	**2.0**
	MW24-20231026	SoundEarth	10/26/23	16.00	0.35	< 0.20	0.31	< 0.20	**0.88**
	MW24-20240416	SoundEarth	04/16/24	14.50	0.32	< 0.20	0.23	< 0.20	**0.71**
	MW24-20241028	SoundEarth	10/28/24	15.00	0.32	< 0.20	< 0.20	< 0.20	**0.90**
MW25	MW25-050410	Farallon	05/04/10	13.00	**14**	0.31	1.1	< 0.20	< 0.20
	MW25-20141007	SoundEarth	10/07/14	14.00	**12**	0.36	0.37	< 0.20	< 0.20
	MW25-20181025	SoundEarth	10/25/18	13.00	0.28	< 0.20	0.75	< 0.20	< 0.20
	MW25-20200421	SoundEarth	04/21/20	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW25-20200721	SoundEarth	07/21/20	13.00	0.20	0.50	0.45	< 0.20	< 0.20
	MW25-20201020	SoundEarth	10/20/20	13.00	1.6	0.59	1.4	< 0.20	< 0.20
	MW25-20210128	SoundEarth	01/28/21	13.00	2.0	1.0	0.80	< 0.20	< 0.20
	MW25-20210420	SoundEarth	04/20/21	14.00	2.9	0.8	0.68	< 0.20	< 0.20
	MW25-20210727	SoundEarth	07/27/21	15.00	0.97	0.31	1.5	< 0.20	< 0.20
	MW25-20211012	SoundEarth	10/12/21	14.00	0.47	0.34	0.47	< 0.20	< 0.10
	MW25-20220426	SoundEarth	04/26/22	14.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW25-20221115	SoundEarth	11/15/22	15.00	< 0.20	< 0.20	0.23	< 0.20	< 0.20
	MW25-20230418	SoundEarth	04/18/23	12.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW25-20231024	SoundEarth	10/24/23	14.00	< 0.20	< 0.20	0.45	< 0.20	< 0.20
MW26	MW26-050410	Farallon	05/04/10	13.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20140910	SoundEarth	09/10/14	15.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20181022	SoundEarth	10/22/18	13.00	0.24	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20200128	SoundEarth	01/28/20	14.00	0.28	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20200421	SoundEarth	04/21/20	15.50	0.24	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20200721	SoundEarth	07/21/20	15.50	1.4	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20201019	SoundEarth	10/19/20	15.50	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20210128	SoundEarth	01/28/21	15.50	0.41	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20210420	SoundEarth	04/20/21	15.00	0.34	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20210726	SoundEarth	07/26/21	15.00	0.49	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20211012	SoundEarth	10/12/21	15.00	0.52	< 0.20	< 0.20	< 0.20	< 0.10
	MW26-20220427	SoundEarth	04/27/22	15.00	0.28	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20221117	SoundEarth	11/17/22	15.00	0.54	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20230419	SoundEarth	04/19/23	14.00	0.45	< 0.20	< 0.20	< 0.20	< 0.20
	MW26-20231024	SoundEarth	10/24/23	16.00	0.57	< 0.20	< 0.20	< 0.20	< 0.20
MW27	MW27-070111	Farallon	07/01/11	11.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20141007	SoundEarth	10/07/14	12.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20190207	SoundEarth	02/07/19	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20200128	SoundEarth	01/28/20	12.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20200421	SoundEarth	04/21/20	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20200721	SoundEarth	07/21/20	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20201020	SoundEarth	10/20/20	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20210128	SoundEarth	01/28/21	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20210420	SoundEarth	04/20/21	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20210727	SoundEarth	07/27/21	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20211012	SoundEarth	10/12/21	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10
	MW27-20220426	SoundEarth	04/26/22	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20221115	SoundEarth	11/15/22	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20230418	SoundEarth	04/18/23	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20231025	SoundEarth	10/25/23	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20240415	SoundEarth	04/15/24	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW27-20241025	SoundEarth	10/25/24	12.75	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW28	MW28-20190604	SoundEarth	06/04/19	14.00	3.1	4.9	**50**	< 0.80	**16**
	MW28-20200128	SoundEarth	01/28/20	13.00	**330**	**150**	**710**	6.3	**130**
	MW28-20200422	SoundEarth	04/22/20	13.00	**35**	**15**	**280**	2.3	**65**
	MW28-20200721	SoundEarth	07/21/20	13.00	**21**	**18**	**200**	1.7	**60**
	MW28-20201020	SoundEarth	10/20/20	13.00	**16**	**13**	**170**	1.3	**50**
	MW28-20210128	SoundEarth	01/28/21	13.00	**44**	**26**	**200**	1.6	**49**
	MW28-20210421	SoundEarth	04/21/21	13.50	**21**	**5.6**	**180**	1.3	**41**
	MW28-20210727	SoundEarth	07/27/21	13.80	**48**	**34**	**61**	0.44	**23**
	MW28-20211013	SoundEarth	10/13/21	15.00	**24**	**29**	**68**	0.50	**19**
	MW28-20220427	SoundEarth	04/27/22	15.00	**5.7**	**5.6**	**150**	1.1	**31**
	MW28-20221117	SoundEarth	11/17/22	13.00	3.7	**6.1**	**100**	0.81	**21**
	MW28-20230420	SoundEarth	04/20/23	13.00	**23**	**18**	**79**	0.46	**9.7**
	MW28-20231026	SoundEarth	10/26/23	13.00	**35**	**28**	**53**	< 0.40	**2.3**
	MW28-20240416	SoundEarth	04/16/24	10.50	2.0	1.7	**75**	0.52	**29**
	MW28-20241028	SoundEarth	10/28/24	13.80	**7.7**	< 0.40	**48**	0.47	**28**
MW30	MW30-20210127	SoundEarth	01/27/21	16.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20210419	SoundEarth	04/19/21	11.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20210726	SoundEarth	07/26/21	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20211011	SoundEarth	10/11/21	14.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10
	MW30-20220426	SoundEarth	04/26/22	15.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20221116	SoundEarth	11/16/22	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20230418	SoundEarth	04/18/23	12.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20231024	SoundEarth	10/24/23	13.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20240415	SoundEarth	04/15/24	9.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW30-20241024	SoundEarth	10/24/24	15.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MTCA Cleanup Levels for Groundwater					**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**
Commercial Remediation Levels for Groundwater					**120[4]**	**12[4]**	**NE**	**650[4]**	**1.6[4]**
Roadway Excavation Remediation Levels for Groundwater					**760[4]**	**40[4]**	**NE**	**4,200[4]**	**9.9[4]**

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MW32	MW32-20221116	SoundEarth	11/16/22	20.00	**25**	0.65	0.65	< 0.20	**1.7**
	MW32-20230418	SoundEarth	04/18/23	20.00	1.0	< 0.20	1.0	< 0.20	**1.2**
	MW32-20231025	SoundEarth	10/25/23	23.00	1.0	0.21	0.27	< 0.20	**3.1**
	MW32-20240416	SoundEarth	04/16/24	20.00	0.27	< 0.20	< 0.20	< 0.20	**2.3**
	MW32-20241025	SoundEarth	10/25/24	20.00	0.39	< 0.20	< 0.20	< 0.20	< 0.20
MW34	MW34-20221116	SoundEarth	11/16/22	20.00	**13**	4.6	**39**	< 0.20	**9.2**
	MW34-20230418	SoundEarth	04/18/23	20.00	2.0	0.30	2.9	< 0.20	**7.3**
	MW34-20231026	SoundEarth	10/26/23	21.00	1.2	0.23	1.2	< 0.20	**1.9**
	MW34-20240416	SoundEarth	04/16/24	20.00	0.23	< 0.20	0.91	< 0.20	**1.0**
	MW34-20241024	SoundEarth	10/24/24	20.00	0.33	0.21	0.96	< 0.20	**1.1**
MW36	MW36-20221115	SoundEarth	11/15/22	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW36-20230418	SoundEarth	04/18/23	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW36-20231025	SoundEarth	10/25/23	21.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW36-20240415	SoundEarth	04/15/24	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW36-20241024	SoundEarth	10/24/24	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
TMW01	TMW-1-040510	Farallon	04/05/10	13.75	**15**	0.29	< 0.20	< 0.20	< 0.20
	TMW-1-20100405	SoundEarth	04/05/10	--	**16**	< 1.0	< 1.0	< 1.0	< 0.20
	Monitoring Well Decommissioned								
TMW02	TMW-2-040510	Farallon	04/05/10	13.79	**110**	1.5	< 1.0	< 1.0	< 1.0
	TMW-2-20100405	SoundEarth	04/05/10	--	**150**	1.5	< 1.0	< 1.0	< 0.20
	Monitoring Well Decommissioned								
TMW03	TMW-3-040510	Farallon	04/05/10	13.22	**310**	3.6	< 2.0	< 2.0	< 2.0
	TMW-3-20100405	SoundEarth	04/05/10	--	**350**	3.7	< 1.0	< 1.0	< 0.20
	Monitoring Well Decommissioned								
IW08	IW08-20200212*	SoundEarth	02/12/20	13.00	1.0	0.32	12	< 0.20	**0.39**
	IW08-20200526*	SoundEarth	05/26/20	9.00	1.2	0.32	12	< 0.20	**1.2**
	IW08-20200720*	SoundEarth	07/20/20	9.00	0.77	0.48	14	< 0.20	**0.74**
	IW08-20201019*	SoundEarth	10/19/20	9.00	1.2	0.44	**17**	< 0.20	**1.2**
	IW08-20210127*	SoundEarth	01/27/21	9.00	1.4	0.44	**30**	< 0.20	**2.1**
	IW08-20210419*	SoundEarth	04/19/21	10.00	2.1	0.48	**35**	< 0.40	**2.5**
	IW08-20210726*	SoundEarth	07/26/21	10.00	1.7	0.56	**31**	< 0.20	**1.1**
	IW08-20211011*	SoundEarth	10/11/21	11.00	1.4	0.43	**32**	< 0.20	**2.0**
	IW08-20220425*	SoundEarth	04/25/22	10.00	1.3	0.70	**49**	< 0.40	**1.9**
	IW08-20221115*	SoundEarth	11/15/22	11.00	1.6	0.63	**39**	< 0.20	**1.8**
	IW08-20230417*	SoundEarth	04/17/23	10.00	2.1	0.88	**52**	< 0.40	**2.6**
	IW08-20231023*	SoundEarth	10/23/23	10.00	1.6	0.84	**51**	< 0.40	**1.9**
	IW08-20240412*	SoundEarth	04/12/24	10.00	1.6	0.99	**57**	< 0.40	**2.0**
	IW08-20241023*	SoundEarth	10/23/24	10.00	1.6	0.84	**46**	< 0.40	**1.5**
IW16	IW16-20200212*	SoundEarth	02/12/20	12.50	< 1.0	1.2	**37**	< 1.0	**180**
	IW16-20200526*	SoundEarth	05/26/20	13.50	< 1.0	1.5	**36**	< 1.0	**160**
	IW16-20200720*	SoundEarth	07/20/20	13.50	0.71	1.4	**33**	< 0.50	**120**
	IW16-20201019*	SoundEarth	10/19/20	13.50	0.81	1.2	**24**	< 0.40	**73**
	IW16-20210127*	SoundEarth	01/27/21	13.50	1.2	1.6	**17**	< 0.40	**56**
	IW16-20210419*	SoundEarth	04/19/21	13.00	0.91	1.7	**17**	< 0.40	**55**
	IW16-20210726*	SoundEarth	07/26/21	13.00	0.87	1.2	12	< 0.40	**42**
	IW16-20211011*	SoundEarth	10/11/21	13.00	0.51	1.0	8.6	0.23	**35**
	IW16-20220425*	SoundEarth	04/25/22	12.00	0.92	1.7	7.7	< 0.40	**29**
	IW16-20221115*	SoundEarth	11/15/22	11.00	0.97	1.2	9.4	< 0.20	**15**
	IW16-20230417*	SoundEarth	04/17/23	10.00	1.1	1.5	5.7	< 0.20	**14**
	IW16-20231023*	SoundEarth	10/23/23	12.00	1.2	1.4	6.0	< 0.20	**10**
	IW16-20240412*	SoundEarth	04/12/24	12.00	0.47	0.25	0.95	< 0.20	**3.3**
	IW16-20240618*	SoundEarth	06/18/24	12.00	0.43	0.22	1.8	< 0.20	**7.6**
	IW16-20241023*	SoundEarth	10/23/24	12.00	0.52	0.42	2.8	< 0.20	**2.3**
IW21	IW21-20200212*	SoundEarth	02/12/20	10.00	< 10	< 10	**81**	< 10	**1,500**
	IW21-20200526*	SoundEarth	05/26/20	10.00	< 2.0	< 2.0	< 2.0	< 2.0	**330**
	IW21-20200720*	SoundEarth	07/20/20	10.00	< 2.0	< 2.0	6.7	< 2.0	**400**
	IW21-20201019*	SoundEarth	10/19/20	10.00	< 4.0	< 4.0	< 4.0	< 4.0	**740**
	IW21-20210127*	SoundEarth	01/27/21	10.00	< 0.80	< 0.80	< 0.80	< 0.80	**87**
	IW21-20210419*	SoundEarth	04/19/21	12.00	< 4.0	< 4.0	11	< 4.0	**380**
	IW21-20210726*	SoundEarth	07/26/21	12.00	< 0.20	0.88	1.1	< 0.20	**25**
	IW21-20211011*	SoundEarth	10/11/21	12.00	< 0.40	0.88	4.2	< 0.40	**50**
	IW21-20220425*	SoundEarth	04/25/22	12.00	< 4.00	< 4.00	**120**	< 4.00	**300**
	IW21-20221115*	SoundEarth	11/15/22	10.00	< 0.20	0.53	1.5	0.28	**4.5**
	IW21-20230417*	SoundEarth	04/17/23	10.00	< 0.80	1.3	**78**	1.1	**180**
	IW21-20231023*	SoundEarth	10/23/23	9.50	< 0.20	0.47	7.1	0.86	**32**
	IW21-20240412*	SoundEarth	04/12/24	9.50	< 1.0	< 1.0	2.7	< 1.0	**62**
	IW21-20240618*	SoundEarth	06/18/24	9.50	< 0.80	< 0.80	12	< 0.80	**50**
	IW21-20241023*	SoundEarth	10/23/24	10.00	0.23	< 0.20	1.5	< 0.20	**7.0**
IW30	IW30-20240412*	SoundEarth	04/12/24	8.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW30-20240618*	SoundEarth	06/18/24	8.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
IW31	IW31-20200212*	SoundEarth	02/12/20	13.00	0.36	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20200526*	SoundEarth	05/26/20	10.00	0.23	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20200720*	SoundEarth	07/20/20	10.00	0.28	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20201019*	SoundEarth	10/19/20	10.00	0.35	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20210127*	SoundEarth	01/27/21	10.00	0.34	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20210419*	SoundEarth	04/19/21	13.00	0.33	< 0.20	0.78	< 0.20	< 0.20
	IW31-20210726*	SoundEarth	07/26/21	13.00	0.28	< 0.20	0.21	< 0.20	< 0.20
	IW31-20211011*	SoundEarth	10/11/21	13.00	0.29	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20220425*	SoundEarth	04/25/22	10.00	0.32	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20221114*	SoundEarth	11/14/22	10.00	0.22	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20230417*	SoundEarth	04/17/23	13.00	0.38	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20231023*	SoundEarth	10/23/23	15.00	0.29	< 0.20	< 0.20	< 0.20	< 0.20
	IW31-20240415*	SoundEarth	04/15/24	8.00	< 0.20	< 0.20	3.1	< 0.20	**1.9**
	IW31-20240618*	SoundEarth	06/18/24	8.00	< 0.20	< 0.20	3.1	< 0.20	**2.4**
	IW31-20241024*	SoundEarth	10/24/24	11.50	< 0.20	< 0.20	5.6	< 0.20	**0.53**
MTCA Cleanup Levels for Groundwater					**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**
Commercial Remediation Levels for Groundwater					**120[4]**	**12[4]**	**NE**	**650[4]**	**1.6[4]**
Roadway Excavation Remediation Levels for Groundwater					**760[4]**	**40[4]**	**NE**	**4,200[4]**	**9.9[4]**

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
IW33	IW33-20190312*	SoundEarth	03/12/19	13.00	**6.3**	< 1.00	< 1.00	< 1.00	< 0.20
	IW33-20200212*	SoundEarth	02/12/20	12.50	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20200526*	SoundEarth	05/26/20	10.50	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20200720*	SoundEarth	07/20/20	10.50	1.2	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20201019*	SoundEarth	10/19/20	10.50	1.0	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20210127*	SoundEarth	01/27/21	10.50	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20210419*	SoundEarth	04/19/21	11.00	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20210726*	SoundEarth	07/26/21	11.00	0.98	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20211011*	SoundEarth	10/11/21	14.00	0.90	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20220425*	SoundEarth	04/25/22	13.00	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20221114*	SoundEarth	11/14/22	12.00	0.96	< 0.20	0.27	< 0.20	< 0.20
	IW33-20230417*	SoundEarth	04/17/23	12.00	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	IW33-20231023*	SoundEarth	10/23/23	14.50	0.90	0.21	< 0.20	< 0.20	< 0.20
	IW33-20240415*	SoundEarth	04/15/24	14.50	1.2	< 1.0	**91**	< 1.0	**73**
	IW33-20240618*	SoundEarth	06/18/24	14.50	< 0.80	< 0.80	**78**	0.99	**43**
	IW33-20241024*	SoundEarth	10/24/24	14.50	0.63	0.56	**74**	0.80	**15**
IW55	IW55-20230417*	SoundEarth	04/17/23	5.50	< 0.20	0.27	1.6	< 0.20	**1.2**
	IW55-20231023*	SoundEarth	10/23/23	5.50	< 0.20	0.22	1.9	< 0.20	**1.3**
	IW55-20240412*	SoundEarth	04/12/24	4.00	< 0.20	< 0.20	1.5	< 0.20	**0.86**
	IW55-20241023*	SoundEarth	10/23/24	4.00	< 0.20	< 0.20	0.92	< 0.20	**0.89**
IW57	IW57-20221115*	SoundEarth	11/15/22	6.00	< 0.20	0.40	0.95	< 0.20	**0.43**
	IW57-20230417*	SoundEarth	04/17/23	4.00	< 0.20	0.29	0.48	< 0.20	**0.33**
	IW57-20231023*	SoundEarth	10/23/23	4.00	< 0.20	0.23	0.25	< 0.20	**0.27**
	IW57-20240412*	SoundEarth	04/12/24	4.00	< 0.20	< 0.20	< 0.20	< 0.20	**0.42**
	IW57-20241023*	SoundEarth	10/23/24	4.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
IW59	IW59-20200212*	SoundEarth	02/12/20	4.00	< 0.20	0.55	1.0	< 0.20	**0.24**
	IW59-20200526*	SoundEarth	05/26/20	4.00	< 0.20	0.51	1.4	< 0.20	**3.0**
	IW59-20200720*	SoundEarth	07/20/20	4.00	< 0.20	0.69	2.3	< 0.20	**6.9**
	IW59-20201019*	SoundEarth	10/19/20	4.00	0.22	1.8	5.0	< 0.20	**15**
	IW59-20210127*	SoundEarth	01/27/21	4.00	0.51	2.3	11	< 0.20	**41**
	IW59-20210419*	SoundEarth	04/19/21	4.00	< 1.0	2.2	**42**	< 1.0	**79**
	IW59-20210726*	SoundEarth	07/26/21	4.00	0.48	2.0	**61**	< 0.40	**87**
	IW59-20211011*	SoundEarth	10/11/21	4.00	< 0.80	1.7	**94**	< 0.80	**130**
	IW59-20220425*	SoundEarth	04/25/22	3.00	< 2.0	< 2.0	**140**	< 2.0	**160**
	IW59-20221115*	SoundEarth	11/15/22	3.00	< 0.80	1.1	**140**	< 0.80	**100**
	IW59-20230417*	SoundEarth	04/17/23	--	< 1.0	< 1.0	**43**	< 1.0	**130**
	IW59-20231023*	SoundEarth	10/23/23	4.00	< 1.0	< 1.0	12	< 1.0	**69**
	IW59-20240412*	SoundEarth	04/12/24	4.00	< 0.20	< 0.20	0.40	< 0.20	**14**
	IW59-20240618*	SoundEarth	06/18/24	4.00	< 0.40	< 0.40	2.9	< 0.40	**28**
	IW59-20241023*	SoundEarth	10/23/24	4.00	< 0.20	< 0.20	7.7	< 0.20	**18**
IW61	IW61-20221115*	SoundEarth	11/15/22	6.00	< 0.20	< 0.20	0.42	< 0.20	**10**
	IW61-20230417*	SoundEarth	04/17/23	5.00	< 0.20	< 0.20	0.33	< 0.20	**20**
	IW61-20231023*	SoundEarth	10/23/23	4.50	< 0.20	< 0.20	0.49	< 0.20	**22**
	IW61-20240412*	SoundEarth	04/12/24	4.00	< 0.40	< 0.40	2.9	< 0.40	**36**
	IW61-20240618*	SoundEarth	06/18/24	4.00	< 1.0	< 1.0	**26**	< 1.0	**100**
	IW61-20241023*	SoundEarth	10/23/24	4.00	< 0.20	< 0.20	**33**	< 0.20	**67**
Deep Water-Bearing Zone Wells									
MW07	MW7-111904-01	Farallon	11/19/04	26.00	**7,000**	**47**	< 20	< 20	< 20
	MW7-060206	Farallon	06/02/06	29.00	**530**	**16**	< 4.0	< 4.0	< 4.0
	MW7-042007	Farallon	04/20/07	28.00	2.5	< 2.0	< 2.0	< 2.0	< 2.0
	MW7-112008	Farallon	11/20/08	28.67	**18.0**	0.69	< 2.0	< 2.0	< 2.0
	MW7-050410	Farallon	05/04/10	26.00	**12.0**	0.49	< 0.20	< 0.20	< 0.20
	MW07-20140910	SoundEarth	09/10/14	26.00	4.5	0.26	< 0.20	< 0.20	< 0.20
	Monitoring Well Decommissioned								
MW08	MW8-111904-01	Farallon	11/19/04	35.00	0.36	< 0.20	< 0.20	< 0.20	< 0.20
	MW8-060106	Farallon	06/01/06	38.09	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW8-111908	Farallon	11/19/08	38.15	0.70	< 0.20	< 0.20	< 0.20	< 0.20
	MW8-050510	Farallon	05/04/10	35.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20140909	SoundEarth	09/09/14	30.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20181025	SoundEarth	10/25/18	37.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20200128	SoundEarth	01/28/20	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20200421	SoundEarth	04/21/20	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20200720	SoundEarth	07/20/20	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20201019	SoundEarth	10/19/20	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20210127	SoundEarth	01/27/21	35.00	4.4	0.23	< 0.20	< 0.20	< 0.20
	MW08-20210420	SoundEarth	04/20/21	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20210726	SoundEarth	07/26/21	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20211012	SoundEarth	10/12/21	15.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10
	MW08-20220426	SoundEarth	04/26/22	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20221116	SoundEarth	11/16/22	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20230419	SoundEarth	04/19/23	35.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW08-20231023	SoundEarth	10/23/23	36.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW09	MW9-111904-01	Farallon	11/19/04	35.00	**210**	< 1.0	< 1.0	< 1.0	< 1.0
	MW9-060106	Farallon	06/01/06	37.81	**390**	< 2.0	< 2.0	< 2.0	< 2.0
	MW9-042007	Farallon	04/20/07	36.75	**410**	< 2.0	< 2.0	< 2.0	< 2.0
	MW9-112008	Farallon	11/20/08	37.81	**220**	< 2.0	< 2.0	< 2.0	< 2.0
	MW9-050410	Farallon	05/04/10	35.00	**190**	< 0.20	< 0.20	< 0.20	< 0.20
	MW09-20140910	SoundEarth	09/10/14	35.00	**89**	< 0.20	< 0.20	< 0.20	< 0.20
	MW09-20181024	SoundEarth	10/24/18	35.00	**160**	< 1.0	< 1.0	< 1.0	< 1.0
	MW09-20200129	SoundEarth	01/29/20	35.00	**97**	3.4	**160**	< 1.0	< 1.0
	MW09-20200421	SoundEarth	04/21/20	35.00	**72**	4.6	**120**	< 1.0	< 0.20
	MW09-20200721	SoundEarth	07/21/20	35.00	**130**	**11**	**170**	1.4	< 0.20
	MW09-20201020	SoundEarth	10/20/20	35.00	**250**	**13**	**110**	< 1.0	< 0.20
	MW09-20210128	SoundEarth	01/28/21	35.00	**350**	**8.0**	**43**	< 2.0	< 0.20
	MW09-20210420	SoundEarth	04/20/21	35.00	**310**	**6.9**	**30**	< 2.0	< 0.20
	MW09-20210727	SoundEarth	07/27/21	35.00	**410**	4.3	**23**	< 2.0	< 0.20
	MW09-20211013	SoundEarth	10/13/21	35.00	**380**	3.9	**20**	< 0.40	< 0.20
	MW09-20220427	SoundEarth	04/27/22	35.00	**420**	4.4	15	< 0.20	< 0.20
	MW09-20221117	SoundEarth	11/17/22	35.00	**670**	< 4.0	10	< 4.0	< 0.20
	MW09-20230420	SoundEarth	04/20/23	35.00	**590**	2.9	6.6	< 2.0	< 0.20
	MW09-20231025	SoundEarth	10/25/23	35.00	**760**	**5.3**	15	< 2.0	**0.37**
	MW09-20240416	SoundEarth	04/16/24	35.00	**450**	2.1	10	< 2.0	**0.22**
	MW09-20241028	SoundEarth	10/28/24	35.00	**380**	3.7	**16**	< 2.0	< 0.20
MTCA Cleanup Levels for Groundwater					**5**[2]	**5**[2]	**16**[3]	**160**[3]	**0.2**[2]
Commercial Remediation Levels for Groundwater					**120**[4]	**12**[4]	**NE**	**650**[4]	**1.6**[4]
Roadway Excavation Remediation Levels for Groundwater					**760**[4]	**40**[4]	**NE**	**4,200**[4]	**9.9**[4]

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MW10	MW10-111904-01	Farallon	11/19/04	34.98	2.5	< 0.20	< 0.20	< 0.20	< 0.20
	MW10-060106	Farallon	06/01/06	37.98	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW10-042007	Farallon	04/20/07	37.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW10-112008	Farallon	11/20/08	38.01	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW10-050410	Farallon	05/04/10	35.00	3.30	< 0.20	< 0.20	< 0.20	< 0.20
	MW10-20140910	SoundEarth	09/10/14	35.00	**600**	< 0.20	< 0.20	< 0.20	< 0.20
	MW10-20181024	SoundEarth	10/24/18	35.00	**210**	< 2.0	< 2.0	< 2.0	< 2.0
	MW10-20190409	SoundEarth	04/09/19*	35.00	**21**	1.1	1.8	< 0.20	< 0.20
	MW10-20200129	SoundEarth	01/29/20	35.00	**6.5**	3.3	**250**	< 1.0	**1.6**
	MW10-20200422	SoundEarth	04/22/20	35.00	< 2.0	< 2.0	**270**	< 2.0	**1.5**
	MW10-20200722	SoundEarth	07/22/20	35.00	< 2.0	< 2.0	**270**	< 2.0	**1.3**
	MW10-20201020	SoundEarth	10/20/20	35.00	**6.5**	3.6	**480**	< 2.0	**1.2**
	MW10-20210128	SoundEarth	01/28/21	35.00	**11**	**6.5**	**420**	< 2.0	**0.91**
	MW10-20210420	SoundEarth	04/20/21	35.00	**47**	**15**	**650**	< 4.0	**1.3**
	MW10-20210726	SoundEarth	07/26/21	35.00	**19**	**8.9**	**400**	< 2.0	**0.78**
	MW10-20211012	SoundEarth	10/12/21	35.00	**9.3**	**5.3**	**150**	0.48	**0.56**
	MW10-20220426	SoundEarth	04/26/22	35.00	1.7	1.5	**120**	< 0.80	**0.50**
	MW10-20221117	SoundEarth	11/17/22	35.00	4.5	3.3	**80**	< 0.40	**0.45**
	MW10-20230420	SoundEarth	04/20/23	35.00	**7.3**	**7.8**	**59**	< 0.40	**0.42**
	MW10-20231025	SoundEarth	10/25/23	35.00	5.0	**17**	**140**	< 0.80	**0.53**
	MW10-20240417	SoundEarth	04/17/24	35.00	0.98	< 0.80	**130**	< 0.80	**0.75**
	MW10-20241028	SoundEarth	10/28/24	35.00	**110**	**76**	**190**	< 0.80	**0.86**
MW11	MW11-060206	Farallon	06/02/06	62.30	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW11-112008	Farallon	11/20/08	63.30	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW11-050310	Farallon	05/03/10	62.50	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW11-20141007	SoundEarth	10/07/14	62.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW12	MW12-060206	Farallon	06/02/06	60.51	0.76	< 0.20	< 0.20	< 0.20	< 0.20
	MW12-111908	Farallon	11/19/08	64.10	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW12-050310	Farallon	05/03/10	62.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW12-20140909	SoundEarth	09/09/14	62.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW12-20181024	SoundEarth	10/24/18	62.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW13	MW13-060206	Farallon	06/02/06	60.90	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW13-042007	Farallon	04/20/07	63.18	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW13-111908	Farallon	11/19/08	64.22	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW13-050310	Farallon	05/03/10	60.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW13-20140909	SoundEarth	09/09/14	60.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW13-20181024	SoundEarth	10/24/18	58.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW14	MW14-060206	Farallon	06/02/06	71.31	0.99	< 0.20	< 0.20	< 0.20	< 0.20
	MW14-032507	Farallon	03/25/07	70.08	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW14-042007	Farallon	04/20/07	68.80	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW14-112008	Farallon	11/20/08	70.16	1.1	< 0.20	< 0.20	< 0.20	< 0.20
	MW14-050410	Farallon	05/04/10	68.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW14-20140910	SoundEarth	09/10/14	68.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	Monitoring Well Decommissioned								
MW18	MW18-060106	Farallon	06/01/06	75.92	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	Monitoring Well Decommissioned								
MW20	MW20-112008	Farallon	11/20/08	47.19	0.28	< 0.20	< 0.20	< 0.20	< 0.20
	MW20-050410	Farallon	05/04/10	45.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	Monitoring Well Decommissioned								
MW22	MW22-112008	Farallon	11/20/08	47.19	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-050410	Farallon	05/04/10	44.00	< 1.0	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20140910	SoundEarth	09/10/14	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20181024	SoundEarth	10/24/18	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20200128	SoundEarth	01/28/20	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20200421	SoundEarth	04/21/20	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20200721	SoundEarth	07/21/20	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20201019	SoundEarth	10/19/20	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20210127	SoundEarth	01/27/21	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20210420	SoundEarth	04/20/21	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20210726	SoundEarth	07/26/21	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20211012	SoundEarth	10/12/21	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.10
	MW22-20220426	SoundEarth	04/26/22	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20221116	SoundEarth	11/16/22	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20230419	SoundEarth	04/19/23	44.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW22-20231024	SoundEarth	10/24/23	42.50	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW29	MW29-20190521	SoundEarth	05/21/19	45.00	**11**	0.62	< 0.20	< 0.20	< 0.20
	MW29-20200128	SoundEarth	01/28/20	45.00	4.5	1.1	2.8	< 0.20	< 0.20
	MW29-20200422	SoundEarth	04/22/20	40.00	0.79	< 0.20	< 0.20	< 0.20	< 0.20
	MW29-20200721	SoundEarth	07/21/20	40.00	4.6	1.5	0.86	< 0.20	< 0.20
	MW29-20201019	SoundEarth	10/19/20	40.00	4.5	1.2	0.55	< 0.20	< 0.20
	MW29-20210128	SoundEarth	01/28/21	40.00	**7.1**	1.5	0.30	< 0.20	< 0.20
	MW29-20210420	SoundEarth	04/20/21	45.00	**7.2**	1.3	0.21	< 0.20	< 0.20
	MW29-20210726	SoundEarth	07/26/21	45.00	4.8	0.53	< 0.20	< 0.20	< 0.20
	MW29-20211012	SoundEarth	10/12/21	--	5.3	0.87	< 0.20	< 0.20	< 0.10
	MW29-20220427	SoundEarth	04/27/22	45.00	1.4	0.78	2.7	< 0.20	< 0.20
	MW29-20221116	SoundEarth	11/16/22	45.00	2.4	0.82	< 0.20	< 0.20	< 0.20
	MW29-20230419	SoundEarth	04/19/23	45.00	3.6	1.0	< 0.20	< 0.20	< 0.20
	MW29-20231025	SoundEarth	10/25/23	36.00	**6.8**	2.6	0.73	< 0.20	< 0.20
	MW29-20240416	SoundEarth	04/16/24	45.00	1.2	0.38	2.5	< 0.20	< 0.20
	MW29-20241024	SoundEarth	10/24/24	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW31	MW31-20210127	SoundEarth	01/27/21	37.00	**16,000**	**780**	**940**	< 200	< 200
	MW31-20210419	SoundEarth	04/19/21	37.50	**19,000**	**2,600**	**3,400**	< 100	< 10
	MW31-20210726	SoundEarth	07/26/21	37.50	**480**	**790**	**15,000**	110	**12**
	MW31-20210819	SoundEarth	08/19/21	38.00	**350**	**360**	**16,000**	140	**20**
	MW31-20211011	SoundEarth	10/11/21	37.50	**370**	**410**	**11,000**	150	**65**
	MW31-20220426	SoundEarth	04/26/22	--	**110**	**12**	**13,000**	120	**570**
	MW31-20221116	SoundEarth	11/16/22	38.00	**55**	< 25	**10,000**	85	**1,100**
	MW31-20230418	SoundEarth	04/18/23	38.00	< 50	< 50	**7,800**	54	**1,500**
	MW31-20231026	SoundEarth	10/26/23	38.00	**67**	< 50	**6,400**	< 50	**2,000**
	MW31-20240417	SoundEarth	04/17/24	37.00	< 40	< 40	**7,900**	60	**2,700**
	MW31-20241028	SoundEarth	10/28/24	37.50	< 50	< 50	**8,700**	60	**2,100**
MTCA Cleanup Levels for Groundwater					**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**
Commercial Remediation Levels for Groundwater					**120[4]**	**12[4]**	**NE**	**650[4]**	**1.6[4]**
Roadway Excavation Remediation Levels for Groundwater					**760[4]**	**40[4]**	**NE**	**4,200[4]**	**9.9[4]**

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
MW33	MW33-20221116	SoundEarth	11/16/22	40.00	4.5	< 0.20	< 0.20	< 0.20	< 0.20
	MW33-20230418	SoundEarth	04/18/23	40.00	1.5	< 0.20	< 0.20	< 0.20	< 0.20
	MW33-20231024	SoundEarth	10/24/23	40.00	0.57	< 0.20	< 0.20	< 0.20	< 0.20
	MW33-20240416	SoundEarth	04/16/24	40.00	0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW33-20241024	SoundEarth	10/24/24	40.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MW35	MW35-20221115	SoundEarth	11/15/22	40.00	**3,300**	**110**	**310**	< 0.20	**2.8**
	MW35-20230418	SoundEarth	04/18/23	40.00	**240**	**25**	**340**	< 2.0	**1.2**
	MW35-20231026	SoundEarth	10/26/23	42.00	**3,600**	**220**	**1,300**	3.1	**30**
	MW35-20240416	SoundEarth	04/16/24	40.00	4.7	1.9	**26**	< 0.20	**0.32**
	MW35-20241028	SoundEarth	10/28/24	40.00	**17**	**5.8**	**39**	< 0.20	**2.6**
MW37	MW37-20221115	SoundEarth	11/15/22	40.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW37-20230418	SoundEarth	04/18/23	40.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW37-20231024	SoundEarth	10/24/23	40.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW37-20240415	SoundEarth	04/15/24	40.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	MW37-20241025	SoundEarth	10/25/24	40.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
IW07	IW07-20200212*	SoundEarth	02/12/20	32.00	< 0.20	< 0.20	1.5	< 0.20	< 0.20
	IW07-20200526*	SoundEarth	05/26/20	32.00	< 0.20	< 0.20	1.8	< 0.20	< 0.20
	IW07-20200720*	SoundEarth	07/20/20	32.00	< 0.20	< 0.20	1.9	< 0.20	< 0.20
	IW07-20201019*	SoundEarth	10/19/20	32.00	< 0.20	< 0.20	1.5	< 0.20	< 0.20
	IW07-20210127*	SoundEarth	01/27/21	32.00	< 0.20	< 0.20	1.8	< 0.20	**0.23**
	IW07-20210419*	SoundEarth	04/19/21	32.00	< 0.20	< 0.20	1.5	< 0.20	**0.32**
	IW07-20210726*	SoundEarth	07/26/21	32.00	< 0.20	< 0.20	1.5	< 0.20	**0.32**
	IW07-20211011*	SoundEarth	10/11/21	32.00	< 0.20	< 0.20	1.4	< 0.20	**0.32**
	IW07-20220425*	SoundEarth	04/25/22	32.00	< 0.20	< 0.20	1.4	< 0.20	**0.44**
	IW07-20221115*	SoundEarth	11/15/22	32.00	< 0.20	< 0.20	1.4	< 0.20	**0.24**
	IW07-20230417*	SoundEarth	04/17/23	32.00	< 0.20	< 0.20	1.4	< 0.20	**0.31**
	IW07-20231023*	SoundEarth	10/23/23	32.00	< 0.20	< 0.20	1.2	< 0.20	< 0.20
	IW07-20240412*	SoundEarth	04/12/24	32.00	< 0.20	< 0.20	1.3	< 0.20	< 0.20
	IW07-20241023*	SoundEarth	10/23/24	32.00	< 0.20	< 0.20	1.1	< 0.20	< 0.20
IW15	IWI5-20200212*	SoundEarth	02/12/20	29.00	0.21	< 0.20	3.3	< 0.20	**0.58**
	IWI5-20200526*	SoundEarth	05/26/20	32.00	0.34	0.44	**18**	< 0.20	**11**
	IWI5-20200720*	SoundEarth	07/20/20	32.00	0.36	0.58	**28**	< 0.20	**19**
	IWI5-20201019*	SoundEarth	10/19/20	32.00	0.33	0.45	**27**	< 0.20	**20**
	IW15-20210127*	SoundEarth	01/27/21	32.00	0.65	< 0.40	**40**	< 0.40	**28**
	IW15-20210419*	SoundEarth	04/19/21	32.00	0.57	1.5	**69**	< 0.40	**37**
	IW15-20210726*	SoundEarth	07/26/21	32.00	0.51	1.0	**49**	< 0.40	**24**
	IW15-20211011*	SoundEarth	10/11/21	32.00	0.37	0.64	**35**	< 0.20	**14**
	IW15-20220425*	SoundEarth	04/25/22	32.00	< 0.80	1.6	**57**	< 0.80	**19**
	IW15-20221115*	SoundEarth	11/15/22	32.00	0.55	1.3	**46**	0.21	**8.6**
	IW15-20230417*	SoundEarth	04/17/23	32.00	0.72	1.6	**53**	< 0.40	**9.0**
	IW15-20231023*	SoundEarth	10/23/23	32.00	0.62	1.6	**51**	< 0.40	**5.8**
	IW15-20240412*	SoundEarth	04/12/24	32.00	1.1	1.3	**45**	< 0.80	**4.5**
	IW15-20241029L	SoundEarth	10/29/24	32.00	1.1	1.9	**47**	< 0.40	**5.6**
IW22	IW22-20200212*	SoundEarth	02/12/20	32.00	< 0.20	< 0.20	1.5	< 0.20	**30**
	IW22-20200526*	SoundEarth	05/26/20	32.00	< 0.50	< 0.50	4.8	< 0.50	**91**
	IW22-20200720*	SoundEarth	07/20/20	32.00	< 1.0	< 1.0	8.5	< 1.0	**160**
	IW22-20201019*	SoundEarth	10/19/20	32.00	< 1.0	< 1.0	8.2	< 1.0	**150**
	IW22-20210127*	SoundEarth	01/27/21	32.00	< 1.0	< 1.0	12	< 1.0	**180**
	IW22-20210419*	SoundEarth	04/19/21	32.00	< 2.0	< 2.0	**17**	< 2.0	**210**
	IW22-20210726*	SoundEarth	07/26/21	32.00	< 2.0	< 2.0	**16**	< 2.0	**250**
	IW22-20211011*	SoundEarth	10/11/21	32.00	< 2.0	< 2.0	**20**	< 2.0	**240**
	IW22-20220425*	SoundEarth	04/25/22	32.00	< 4.0	< 4.0	**30**	< 4.0	**280**
	IW22-20221115*	SoundEarth	11/15/22	32.00	< 1.0	< 1.0	**33**	< 1.0	**190**
	IW22-20230417*	SoundEarth	04/17/23	32.00	< 1.0	< 1.0	**37**	< 1.0	**170**
	IW22-20231023*	SoundEarth	10/23/23	32.00	< 1.0	< 1.0	**36**	< 1.0	**72**
	IW22-20240412*	SoundEarth	04/12/24	32.00	< 0.20	< 0.20	4.0	< 0.20	**12**
	IW22-20240618*	SoundEarth	06/18/24	32.00	< 0.20	< 0.20	5.3	< 0.20	**12**
	IW22-20241023*	SoundEarth	10/23/24	32.00	< 0.20	< 0.20	6.2	< 0.20	**4.9**
IW29	IW29-20240412*	SoundEarth	04/12/24	32.00	0.21	< 0.20	**15**	< 0.20	**0.71**
	IW29-20240618*	SoundEarth	06/18/24	20.00	< 0.80	< 0.80	**64**	< 0.80	**5.6**
IW32	IW32-20200212*	SoundEarth	02/12/20	33.00	< 40	**950**	**7,100**	73	**250**
	IW32-20200526*	SoundEarth	05/26/20	32.00	< 50	**370**	**5,700**	< 50	**250**
	IW32-20200720*	SoundEarth	07/20/20	32.00	< 50	**260**	**5,400**	< 50	**250**
	IW32-20201019*	SoundEarth	10/19/20	32.00	**23**	**200**	**4,600**	35	**240**
	IW32-20210127*	SoundEarth	01/27/21	32.00	**45**	**320**	**5,800**	45	**320**
	IW32-20210419*	SoundEarth	04/19/21	32.00	< 40	**170**	**6,100**	53	**430**
	IW32-20210726*	SoundEarth	07/26/21	32.00	< 50	**160**	**10,000**	89	**1,300**
	IW32-20211011*	SoundEarth	10/11/21	32.00	< 40	**130**	**7,000**	55	**1,200**
	IW32-20220425*	SoundEarth	04/25/22	32.00	< 50	**120**	**5,400**	< 50	**960**
	IW32-20221114*	SoundEarth	11/14/22	32.00	< 30	**130**	**6,100**	32	**1,000**
	IW32-20230417*	SoundEarth	04/17/23	32.00	< 40	**130**	**7,100**	< 40	**1,400**
	IW32-20231023*	SoundEarth	10/23/23	32.00	**46**	**150**	**9,600**	< 40	**2,000**
	IW32-20240415*	SoundEarth	04/15/24	32.00	< 2.0	< 2.0	**110**	< 2.0	**73**
	IW32-20240618*	SoundEarth	06/18/24	32.00	**12**	< 10	**2,100**	< 10	**2,100**
	IW32-20241024*	SoundEarth	10/24/24	32.00	< 20	< 20	**2,900**	< 20	**1,300**
IW34	IW34-20190312	SoundEarth	03/12/19	32.00	**10,000**[ve]	**150**	**23**	< 1	**4.9**
	IW34-20190409*	SoundEarth	04/09/19	33.00	**230**	**21**	11	< 1.0	**1.0**
	IW34-20200212*	SoundEarth	02/12/20	33.00	**360**	**3,100**	**4,100**	50	**100**
	IW34-20200526*	SoundEarth	05/26/20	32.00	**310**	**2,400**	**7,700**	83	**160**
	IW34-20200720*	SoundEarth	07/20/20	32.00	**290**	**2,300**	**11,000**	110	**220**
	IW34-20201019*	SoundEarth	10/19/20	32.00	**230**	**1,400**	**13,000**	140	**280**
	IW34-20210127*	SoundEarth	01/27/21	32.00	< 200	**990**	**17,000**	< 200	**360**
	IW34-20210419*	SoundEarth	04/19/21	32.00	**170**	**650**	**20,000**	**240**	**480**
	IW34-20210726*	SoundEarth	07/26/21	32.00	< 200	**230**	**24,000**	**320**	**460**
	IW34-20211011*	SoundEarth	10/11/21	32.00	< 200	< 200	**26,000**	**330**	**560**
	IW34-20220425*	SoundEarth	04/25/22	32.00	< 10	< 10	**34,000**	**500**	**810**
	IW34-20221114*	SoundEarth	11/14/22	32.00	< 300	< 300	**36,000**	**600**	**860**
	IW34-20230417*	SoundEarth	04/17/23	32.00	< 200	< 200	**37,000**	**620**	**860**
	IW34-20231023*	SoundEarth	10/23/23	32.00	< 200	< 200	**5,600**	**510**	**16,000**
	IW34-20231117	SoundEarth	11/17/23	32.00	< 200	< 200	**4,400**	**450**	**15,000**
	IW34-20240415*	SoundEarth	04/15/24	32.00	< 30	< 30	**2,600**	84	**3,800**
	IW34-20240618*	SoundEarth	06/18/24	32.00	< 100	< 100	**9,300**	**190**	**4,700**
	IW34-20241024L	SoundEarth	10/24/24	32.00	< 100	< 100	**16,000**	**340**	**4,400**
MTCA Cleanup Levels for Groundwater					**5**[(2)]	**5**[(2)]	**16**[(3)]	**160**[(3)]	**0.2**[(2)]
Commercial Remediation Levels for Groundwater					**120**[(4)]	**12**[(4)]	**NE**	**650**[(4)]	**1.6**[(4)]
Roadway Excavation Remediation Levels for Groundwater					**760**[(4)]	**40**[(4)]	**NE**	**4,200**[(4)]	**9.9**[(4)]

SoundEarth Strategies

Table 1
Groundwater Analytical Results for CVOCs
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sampled By	Sample Date	Sample Point Depth (feet bgs)	Analytical Results[1] (micrograms per liter)				
					PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
IW36	IW36-20190409*	SoundEarth	04/09/19	33.00	0.37	< 0.20	< 0.20	< 0.20	< 0.20
	IW36-20240415*	SoundEarth	04/15/24	32.00	< 2.0	< 2.0	73	< 2.0	130
	IW36-20240618*	SoundEarth	06/18/24	32.00	< 10	< 10	1,300	< 10	1,100
IW38	IW38-20240415*	SoundEarth	04/15/24	32.00	< 0.40	< 0.40	57	< 0.40	2.4
	IW38-20240618*	SoundEarth	06/18/24	32.00	< 1.0	< 1.0	94	< 1.0	6.3
IW60	--	--	02/12/20	--	--	--	--	--	--
	IW60-20200526*	SoundEarth	05/26/20	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20200720*	SoundEarth	07/20/20	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20201019*	SoundEarth	10/19/20	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20210127*	SoundEarth	01/27/21	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20210419*	SoundEarth	04/19/21	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20210726*	SoundEarth	07/26/21	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20211011*	SoundEarth	10/11/21	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20220425*	SoundEarth	04/25/22	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20221115*	SoundEarth	11/15/22	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20230417*	SoundEarth	04/17/23	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20231023*	SoundEarth	10/23/23	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20240412*	SoundEarth	04/12/24	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	IW60-20241023*	SoundEarth	10/23/24	20.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
DZ-B01	DZ-B01-20-30	SoundEarth	07/20/21	25.00	3,600	520	5,900	< 30	1,800
	DZ-B01-40-50	SoundEarth	07/20/21	45.00	10,000	160	310	< 50	67
DZ-B02	DZ-B02-20-30	SoundEarth	07/22/21	25.00	10,000	980	1,900	< 100	180
	DZ-B02-40-50	SoundEarth	07/22/21	45.00	1,300	180	420	< 10	32
DZ-B03	DZ-B03-20-30	SoundEarth	07/22/21	25.00	22,000	1,500	6,600	< 200	590
	DZ-B03-35-45	SoundEarth	07/22/21	40.00	12,000	420	920	< 100	62
DZ-B04	DZ-B04-20-30	SoundEarth	07/23/21	25.00	130	3.9	270	< 2.0	280
	DZ-B04-40-50	SoundEarth	07/23/21	45.00	80	0.75	1.0	< 0.40	0.50
DZ-B05	DZ-B05-20-30	SoundEarth	02/24/22	25.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B05-40-50	SoundEarth	02/25/22	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B05-60-70	SoundEarth	02/25/22	65.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
DZ-B06	DZ-B06-20-30	SoundEarth	02/28/22	25.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B06-40-50	SoundEarth	02/28/22	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B06-60-70	SoundEarth	03/01/22	65.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
DZ-B07	DZ-B07-20-30	SoundEarth	03/03/22	25.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B07-40-50	SoundEarth	03/03/22	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B07-60-70	SoundEarth	03/03/22	65.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
DZ-B08	DZ-B08-20-30	SoundEarth	03/01/22	25.00	33	0.51	< 0.20	< 0.20	< 0.20
	DZ-B08-40-50	SoundEarth	03/02/22	45.00	2.6	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B08-60-70	SoundEarth	03/02/22	65.00	0.40	< 0.20	< 0.20	< 0.20	< 0.20
DZ-B09	DZ-B09-20-30	SoundEarth	02/22/22	25.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B09-40-50	SoundEarth	02/22/22	45.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
	DZ-B09-60-70	SoundEarth	02/23/22	65.00	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
MTCA Cleanup Levels for Groundwater					**5[2]**	**5[2]**	**16[3]**	**160[3]**	**0.2[2]**
Commercial Remediation Levels for Groundwater					**120[4]**	**12[4]**	**NE**	**650[4]**	**1.6[4]**
Roadway Excavation Remediation Levels for Groundwater					**760[4]**	**40[4]**	**NE**	**4,200[4]**	**9.9[4]**

NOTES:

Red denotes concentration exceeds MTCA cleanup level for groundwater.

* denotes sample was collected using a passive diffusion bag sampler.

Samples analyzed by OnSite Environmental, Inc. of Redmond, Washington.

Green highlighting denotes samples collected as part of the 30 and 90 day post-pilot test groundwater monitoring.

[1]Analyzed by EPA Method 8260B, 8260C, or 8260D.

[2]MTCA Cleanup Regulation, Chapter 173-340-900 of WAC, Table 720-1 Method A Cleanup Levels for Groundwater, revised November 2007, updated January 2023.

[3]MTCA Cleanup Regulation, Chapter 173-340 of WAC, CLARC, Groundwater, Method B, Non-Carcinogen, Standard Formula Value, CLARC Website <https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>.

[4]Washington State Department of Ecology Toxics Cleanup Program Memorandum, Air, Soil Gas, and Groundwater Remediation Levels for Vapor Intrusion in Commercial and Excavation Scenarios, Table 1 Commercial Remediation Levels for Groundwater and Table 3 Roadway Excavation Remediation Levels for Groundwater, July, 18 2022.

-- = not analyzed

< = not detected at a concentration above the laboratory reporting limit

bgs = below ground surface

CLARC = cleanup levels and risk calculations

CVOC = chlorinated volatile organic compound

DCE = dichloroethene

DZ = deep zone temporary monitoring well

EPA = US Environmental Protection Agency

Farallon = Farallon Consulting, L.L.C.

GeoEngineers = GeoEngineers, Inc.

MTCA = Washington State Model Toxics Control Act

PCE = tetrachloroethene

SoundEarth = SoundEarth Strategies, Inc.

TCE = trichloroethene

WAC = Washington Administrative Code

SoundEarth Strategies

Table 2
Natural Attenuation Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Analytical Results (milligrams per liter)									
			Nitrate[1]	Total Manganese[2]	Total Iron[2]	Ferrous Iron[3]	Ferric Iron[4]	Sulfate[5]	Methane[6]	Ethane[6]	Ethene[6]	Chloride[7]
Shallow Water-Bearing Zone Wells												
MW01	MW1-060206	06/02/06	16	--	1.3	0.00	1.30	16	<0.01	<0.01	<0.01	--
	MW1-20140910	09/10/14	4.1	--	<0.06	0.041	0.00	26	<0.0005	<0.0005	<0.0005	--
	MW01-20181024	10/24/18	--	--	--	--	--	--	--	--	--	--
	MW01-20200129	01/29/20	1.6	0.85	27	0.506	26	25	0.003	<0.00022	<0.00029	11
	MW01-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW01-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW01-20201020	10/20/20	--	--	--	--	--	--	--	--	--	--
	MW01-20210128	01/28/21	--	--	--	--	--	--	--	--	--	--
	MW01-20210420	04/20/21	2.1	<0.010	0.18	0.142	0.04	21	<0.00055	<0.00022	0.00029	7.9
	MW01-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW01-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW01-20220427	04/27/22	--	--	--	--	--	--	--	--	--	--
MW02	MW02-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW02-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW02-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW02-20220427	04/27/22	--	--	--	--	--	--	--	--	--	--
MW03	MW03-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW03-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW03-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW03-20220427	04/27/22	--	--	--	--	--	--	--	--	--	--
MW05	MW05-20200128	01/28/20	<0.05	5.0	54	69.9	-16	<5.0	6.6	<0.022	<0.029	8.5
	MW05-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW05-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW05-20201020	10/20/20	--	--	--	--	--	--	--	--	--	--
	MW05-20210128	01/28/21	--	--	--	--	--	--	--	--	--	--
	MW05-20210421	04/21/21	<0.05	3.4	68	57.9	10.1	<5.0	3.4	<0.00022	<0.00029	19
	MW05-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW05-20211013	10/13/21	--	--	--	--	--	--	--	--	--	--
	MW05-20220427	04/27/22	<0.05	2.8	41	42.8	-1.8	<5.0	9.0	<0.00022	<0.00029	15
	MW05-20230420	04/20/23	<0.05	2.8	32	42.5	-10.5	<5.0	9.6	<0.00022	<0.00029	22
	MW05-20231026	10/26/23	<0.025	2.8	36	44.7	-8.7	0.93	5.6	<0.00056	<0.00058	23.6
	MW05-20240416	04/16/24	0.11	2.7	30	33.5	-3.5	<5.0	4.5	<0.00056	<0.00058	26
	MW05-20241028	10/28/24	0.21	2.9	34	37.4	-3.4	<5.0	6.6	<0.00056	<0.00058	32
MW06	MW06-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW06-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW06-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW06-20220426	04/26/22	<0.05	1.1	1.6	0.401	1.199	17	0.99	<0.00022	0.024	68
	MW06-20230418	04/18/23	<0.05	1.0	2.20	1.48	0.720	19	4.8	0.00068	0.065	76
	MW06-20231024	10/24/23	<0.025	0.8	0.58	0.644	-0.064	14.6	5.4	0.0017	0.042	84.7
	MW06-20240415	04/15/24	0.062	1.0	1.70	2.53	-0.830	<5.0	6.0	<0.00056	0.094	69
	MW06-20241025	10/25/24	<0.050	1.4	4.10	5.84	-1.740	<5.0	3.7	<0.00056	0.0092	51
MW15	MW15-20181022	10/22/18	2.5	0.04	0.21	<0.040	210	65	0.0021	<0.00050	<0.00050	29
	MW15-20200128	01/28/20	3.8	0.36	2.1	0.158	1.9	32	0.17	<0.00044	<0.00058	87
	MW15-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW15-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW15-20201019	10/19/20	--	--	--	--	--	--	--	--	--	--
	MW15-20210127	01/27/21	--	--	--	--	--	--	--	--	--	--
	MW15-20210420	04/20/21	1.1	0.45	26	0.545	25	16	2.6	<0.00022	<0.00029	81
	MW15-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW15-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW15-20220426	04/26/22	17	0.21	1.7	0.598	1.1	19	9.5	<0.00022	<0.00029	91
	MW15-20230419	04/19/23	27	0.17	0.49	0.224	0.3	17	8.3	<0.00022	<0.00029	110
	MW15-20231024	10/24/23	0.937	0.52	5.1	2.43	2.7	9.58	5.1	<0.00056	<0.00058	108
	MW15-20240415	04/15/24	<0.050	1.5	160	143	17	<5.0	5.8	<0.00056	<0.00058	120
	MW15-20241028	10/28/24	21	2.2	47	20.3	26.7	12	6.8	<0.00056	<0.00058	53
MW19	MW19-20231025	10/25/23	0.095	0.15	<0.056	<0.150	0.0	38.2	<0.00055	<0.00056	<0.00058	153
	MW19-20240415	04/15/24	0.18	0.36	0.24	<0.150	0.09	31	<0.00055	<0.00056	<0.00058	52
	MW19-20241024	10/24/24	1.5	0.6	0.4	0.201	0.199	35	0.1	<0.00056	<0.00058	99
MW21	MW21-20181022	10/22/18	<0.05	1.6	0.46	0.093	0.37	67	0.043	<0.0030	<0.0030	11
	MW21-20200129	01/29/20	--	--	--	--	--	--	--	--	--	--
	MW21-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW21-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW21-20201020	10/20/20	--	--	--	--	--	--	--	--	--	--
	MW21-20210128	01/28/21	--	--	--	--	--	--	--	--	--	--
	MW21-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW21-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW21-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW21-20220426	04/26/22	<0.05	1.3	11	14.5	-3.5	<5.0	8.5	<0.00022	<0.00029	12
	MW21-20230420	04/20/23	<0.05	0.96	2.9	11.0	-8.1	35	8.1	<0.00022	<0.00029	97
	MW21-20231025	10/25/23	<0.125	0.95	8.5	11.0	-2.5	1.54	7.4	<0.00056	<0.00058	23.8
	MW21-20240416	04/16/24	0.14	2.1	90	109.0	-19.0	<5.0	8.3	<0.00056	<0.00058	160
	MW21-20241024	10/24/24	0.25	1.1	42	49.1	-7.1	<5.0	5.7	<0.00056	<0.00058	80
MW24	MW24-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW24-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW24-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW24-20220427	04/27/22	--	--	--	--	--	--	--	--	--	--
MW25	MW25-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW25-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW25-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW25-20220426	04/26/22	--	--	--	--	--	--	--	--	--	--
MW26	MW26-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW26-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW26-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW26-20220427	04/27/22	--	--	--	--	--	--	--	--	--	--
MW27	MW27-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW27-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW27-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW27-20220426	04/26/22	--	--	--	--	--	--	--	--	--	--

SoundEarth Strategies

Table 2
Natural Attenuation Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Analytical Results (milligrams per liter)									
			Nitrate[1]	Total Manganese[2]	Total Iron[2]	Ferrous Iron[3]	Ferric Iron[4]	Sulfate[5]	Methane[6]	Ethane[6]	Ethene[6]	Chloride[7]
MW28	MW28-20200128	01/28/20	<0.05	0.50	0.32	0.456	-0.136	15	1.4	0.0045	0.037	110
	MW28-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW28-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW28-20201020	10/20/20	--	--	--	--	--	--	--	--	--	--
	MW28-20210128	01/28/21	--	--	--	--	--	--	--	--	--	--
	MW28-20210421	04/21/21	<0.05	0.59	0.9	1.2	-0.28	13	0.47	<0.00022	0.023	140
	MW28-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW28-20211013	10/13/21	--	--	--	--	--	--	--	--	--	--
	MW28-20220427	04/27/22	<0.05	0.68	1.1	1.5	-0.360	11	1.4	0.0027	0.043	170
	MW28-20230420	04/20/23	<0.05	0.38	0.56	0.482	0.078	16	1.1	0.0028	0.034	170
	MW28-20231026	10/26/23	<0.125	0.24	0.43	0.263	0.167	22.0	0.43	0.0012	0.011	88.9
	MW28-20240416	04/16/24	<0.050	0.71	1.4	1.38	0.02	11	1.60	0.0036	0.039	110
	MW28-20241028	10/28/24	<0.050	0.75	1.7	0.279	1.421	6.5	3.10	0.02	0.12	110
MW30	MW30-20210420	04/19/21	--	--	--	--	--	--	--	--	--	--
	MW30-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW30-20211011	10/11/21	--	--	--	--	--	--	--	--	--	--
	MW30-20220426	04/26/22	--	--	--	--	--	--	--	--	--	--
MW32	MW32-20230418	04/18/23	<0.05	0.15	0.21	0.18	0.03	19	2.0	<0.00022	0.081	13
	MW32-20231025	10/25/23	0.030	0.22	0.24	0.306	-0.07	26.4	3.9	<0.00056	0.014	13.5
	MW32-20240416	04/16/24	<0.050	0.18	0.26	<0.150	0.11	29	1.1	<0.00056	0.0042	15
	MW32-20241025	10/25/24	<0.050	0.11	0.22	<0.150	0.22	25	0.4	<0.00056	0.00084	10
MW34	MW34-20230418	04/18/23	<0.05	0.21	0.14	0.172	-0.032	16	3.3	<0.00022	<0.00029	12
	MW34-20231026	10/26/23	<0.025	0.14	0.24	0.375	-0.135	45.9	1.6	<0.00056	<0.00058	11.7
	MW34-20240416	04/16/24	<0.050	0.11	0.58	0.182	0.398	57	1.1	<0.00056	0.00066	11
	MW34-20241024	10/24/24	<0.050	0.14	2.1	0.239	1.861	48	0.94	<0.00056	0.0016	8.6
Deep Water-Bearing Zone Wells												
MW07	MW7-060206	06/02/06	<0.15	--	4.3	0.00	4.30	65	0.33	<0.01	<0.01	--
	MW07-20140910	09/10/14	2.7	--	<0.06	0.173	0.00	32	<0.0005	<0.0005	<0.0005	--
	Monitoring Well Decommissioned											
MW08	MW08-20140909	09/09/14	<0.05	--	<0.06	0.059	0.00	43	<0.0005	<0.0005	<0.0005	--
	MW08-20181025	10/25/18	<0.05	0.60	0.190	0.087	0.103	41	<0.0010	<0.00050	<0.00050	6.4
	MW08-20200128	01/28/20	<0.05	1.400	0.350	<0.0500	0.300	40	<0.00055	<0.00022	<0.00029	7.7
	MW08-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW08-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW08-20201020	10/20/20	--	--	--	--	--	--	--	--	--	--
	MW08-20210127	01/27/21	--	--	--	--	--	--	--	--	--	--
	MW08-20210420	04/20/21	<0.05	0.35	0.081	<0.100	0.00	40	<0.00055	<0.00022	<0.00029	8.8
	MW08-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW08-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW08-20220426	04/26/22	--	--	--	--	--	--	--	--	--	--
MW09	MW09-20140910	09/10/14	4.7	--	<0.06	<0.04	0.00	27	<0.0005	<0.0005	<0.0005	--
	MW09-20181024	10/24/18	5.1	0.047	0.130	0.092	0.038	25	<0.0010	<0.00050	<0.00050	--
	MW09-20200129	01/20/20	--	--	--	--	--	--	--	--	--	--
	MW09-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW09-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW09-20201020	10/20/20	--	--	--	--	--	--	--	--	--	--
	MW09-20210128	01/28/21	--	--	--	--	--	--	--	--	--	--
	MW09-20210420	04/20/21	--	--	--	--	--	--	--	--	--	--
	MW09-20210727	07/27/21	--	--	--	--	--	--	--	--	--	--
	MW09-20211013	10/13/21	--	--	--	--	--	--	--	--	--	--
	MW09-20220427	04/27/22	2.1	0.072	<0.050	<0.100	--	28	0.79	<0.00022	<0.00029	7.5
	MW09-20230420	04/20/23	1.6	0.11	0.058	<0.150	0.06	30	1.0	<0.00022	<0.00029	7.0
	MW09-20231025	10/25/23	0.842	0.2	0.065	<0.150	0.07	31.7	3.5	<0.00056	<0.00058	8.44
	MW09-20240416	04/16/24	0.88	0.25	0.084	<0.150	0.08	30	0.98	<0.00056	<0.00058	6.8
	MW09-20241028	10/28/24	0.64	0.23	0.4	<0.150	0.4	30	2.00	<0.00056	<0.00058	5.8
MW10	MW10-20140910	09/10/14	<0.05	--	<0.06	0.048	0.012	37	<0.0005	<0.0005	<0.0005	--
	MW10-20181024	10/24/18	<0.05	0.18	0.220	<0.040	0.18	45	0.0028	<0.00050	<0.00050	6.1
	MW10-20200129	01/29/20	<0.05	0.35	1.7	1.71	-0.01	<5.0	10	<0.022	<0.029	8.8
	MW10-20200421	04/21/20	<0.05	--	--	--	--	--	--	--	--	--
	MW10-20200721	07/21/20	<0.05	--	--	--	--	--	--	--	--	--
	MW10-20201020	10/20/20	<0.05	--	--	--	--	--	--	--	--	--
	MW10-20210128	01/28/21	<0.05	--	--	--	--	--	--	--	--	--
	MW10-20210420	04/20/21	<0.05	0.24	0.680	0.893	-0.21	28	1.6	<0.00022	<0.00029	8.4
	MW10-20210727	07/27/21	<0.05	--	--	--	--	--	--	--	--	--
	MW10-20211012	10/12/21	<0.05	--	--	--	--	--	--	--	--	--
	MW10-20220426	04/26/22	<0.05	0.26	1.2	9.42	-8.22	33	4.9	<0.00022	<0.00029	7.4
	MW10-20230420	04/20/23	<0.05	0.29	1.2	1.36	-0.16	32	5.8	<0.00022	<0.00029	9.0
	MW10-20231025	10/25/23	<0.025	0.26	2.1	2.33	-0.23	31.0	5.5	<0.00056	<0.00058	8.49
	MW10-20240417	04/17/24	<0.050	0.29	1.0	1.05	-0.05	<5.0	4.1	<0.00056	<0.00058	9.0
	MW10-20241028	10/28/24	1.7	0.39	3.2	0.367	2.833	23.0	9.4	<0.00056	<0.00058	6.1
MW11	MW11-060206	06/02/06	2.8	--	2.8	0.00	2.80	35	<0.01	<0.01	<0.01	--
	MW11-20141007	10/07/14	<0.05	--	<0.06	0.889	--	50	0.042	<0.003	<0.003	--
	MW11-20230419	04/19/23	0.19	0.27	1.8	0.259	1.54	38	<0.00055	<0.00022	<0.00029	6.0
	MW11-20231024	10/24/23	<0.025	0.34	0.32	<0.150	0.17	44.5	0.0059	<0.00056	<0.00058	12.5
	MW11-20240415	04/15/24	0.19	0.30	0.83	<0.150	0.17	36	<0.00055	<0.00056	<0.00058	7.2
	MW11-20241024	10/24/24	0.72	0.19	2.0	0.538	1.462	72	<0.00055	<0.00056	<0.00058	6.1
MW12	MW12-060206	06/02/06	<0.15	--	4.2	0.00	4.2	39	<0.01	<0.01	<0.01	--
	MW12-20181024	10/24/18	--	--	--	--	--	--	--	--	--	--
MW13	MW13-060206	06/02/06	<0.15	--	2.2	0.00	2.2	35	<0.01	<0.01	<0.01	--
	MW13-20181024	10/24/18	--	--	--	--	--	--	--	--	--	--
	MW13-20230419	04/19/23	0.20	<0.010	<0.050	<0.150	--	34	<0.00055	<0.00022	<0.00029	7.5
	MW13-20231024	10/24/23	<0.025	0.31	0.36	0.221	0.139	32.8	0.0014	<0.00056	<0.00058	8.32
	MW13-20240415	04/15/24	0.069	0.042	0.074	<0.150	<0.074	35	<0.00055	<0.00056	<0.00058	7.6
	MW13-20241024	10/24/24	<0.050	0.44	1.2	1.38	-0.18	30	0.025	<0.00056	<0.00058	6.9
MW14	MW14-060206	06/02/06	<0.15	--	1.9	0.0	1.9	34	<0.01	<0.01	<0.01	--
	Monitoring Well Decommissioned											
MW22	MW22-20140910	09/10/14	4.9	--	<0.06	<0.04	0.00	24	<0.0005	<0.0005	<0.0005	--
	MW22-20181024	10/24/18	--	--	--	--	--	--	--	--	--	--
	MW22-20200128	01/28/20	3.8	<0.011	0.094	0.101	-0.01	22	<0.00055	<0.00022	<0.00029	6.1
	MW22-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW22-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW22-20201019	10/19/20	--	--	--	--	--	--	--	--	--	--
	MW22-20210127	01/27/21	--	--	--	--	--	--	--	--	--	--
	MW22-20210420	04/20/21	2.4	<0.01	<0.05	<0.1	0.00	13	<0.00055	<0.00022	<0.00029	17
	MW22-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW22-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW22-20220426	04/26/22	--	--	--	--	--	--	--	--	--	--

SoundEarth Strategies

Table 2
Natural Attenuation Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Analytical Results (milligrams per liter)									
			Nitrate[1]	Total Manganese[2]	Total Iron[2]	Ferrous Iron[3]	Ferric Iron[4]	Sulfate[5]	Methane[6]	Ethane[6]	Ethene[6]	Chloride[7]
MW29	MW29-20200128	01/28/20	<0.05	0.87	2.3	0.178	2.12	37	0.0054	<0.00022	<0.00029	9.9
	MW29-20200421	04/21/20	--	--	--	--	--	--	--	--	--	--
	MW29-20200721	07/21/20	--	--	--	--	--	--	--	--	--	--
	MW29-20201019	10/19/20	--	--	--	--	--	--	--	--	--	--
	MW29-20210128	01/28/21	--	--	--	--	--	--	--	--	--	--
	MW29-20210420	04/20/21	<0.05	0.42	0.41	<0.100	0.310	33	0.00086	0.00024	0.00034	8.5
	MW29-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW29-20211012	10/12/21	--	--	--	--	--	--	--	--	--	--
	MW29-20220427	04/27/22	--	--	--	--	--	--	--	--	--	--
MW31	MW31-20210420	04/19/21	--	--	--	--	--	--	--	--	--	--
	MW31-20210726	07/26/21	--	--	--	--	--	--	--	--	--	--
	MW31-20210819	08/19/21	--	--	--	--	--	--	--	--	--	--
	MW31-20211011	10/11/21	--	--	--	--	--	--	--	--	--	--
	MW31-20220426	04/26/22	<0.05	0.150	0.099	0.129	-0.03	6.9	0.12	<0.00022	0.0067	32
	MW31-20230418	04/18/23	<0.05	0.055	0.14	<0.15	--	<5.0	0.32	<0.00022	0.0810	22
	MW31-20231026	10/26/23	<0.25	0.13	0.75	1.2	-0.45	4.60	0.34	<0.00056	0.12	20.4
	MW31-20240417	04/17/24	0.072	0.14	0.18	0.166	0.01	6.9	0.37	<0.00056	0.13	24
	MW31-20241028	10/28/24	<0.050	0.15	0.16	<0.150	0.16	<5.0	0.73	<0.00056	0.33	20
MW35	MW35-20230418	04/18/23	<0.05	0.049	0.32	0.305	0.02	19	0.0051	0.0046	0.0057	11
	MW35-20231026	10/26/23	0.134	0.042	0.36	<0.150	0.21	22.0	0.016	0.0032	0.0054	12.3
	MW35-20240416	04/16/24	<0.050	0.028	0.056	<0.150	0.06	30	0.0077	<0.00056	<0.00058	10
	MW35-202410/28	10/28/24	<0.050	0.038	0.06	<0.150	0.06	31	0.0510	<0.00056	0.00064	7.7

NOTES:

[1]Analyzed by EPA Method 353.2.

[2]Analyzed by EPA Method 6010C or 6010D.

[3]Analyzed by EPA SM 3500-Fe B or Field Kit Instrument.

[4]Ferric Iron = Total Iron minus Ferrous Iron. If concentrations of Ferrous Iron are non-detect, Ferric Iron is assumed to be equal to Total Iron.

[5]Analyzed by ASTM D516-07 or D516-11.

[6]Analyzed by EPA Method RSK 175.

[7]Analyzed by EPA SM 4500-Cl E.

-- = not analyzed/not measured

< = not detected at a concentration above the laboratory reporting limit

EPA = US Environmental Protection Agency

SM = Standard Method

SoundEarth Strategies

Table 3
Geochemical and Water Quality Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Dissolved Oxygen	ORP[1] (mV)	Specific Conductivity[1] (mS/cm)	Turbidity[1] (NTU)	Temperature[1] (°C)	pH[1]	Alkalinity[2] (mg/L $CaCO_3$)	Total Organic Carbon[3] (mg/L)
Shallow Water-Bearing Zone Wells										
MW01	MW1-060206	06/02/06	4.16	198.6	--	--	14.37	6.71	--	--
	MW01-20140910	09/10/14	1.24	120	0.371	367.0	19.74	6.61	150	1.5
	MW01-20181024	10/24/18	2.60	106	0.437	--	15.04	6.59	--	--
	MW01-20200129	01/29/20	5.01	-295.7	0.263	166	7.05	6.43	--	1.1
	MW01-20200421	04/21/20	3.14	-24.8	0.263	20.6	12.20	6.52	--	--
	MW01-20200721	07/21/20	3.20	226.8	0.246	57	17.85	5.66	--	--
	MW01-20201020	10/20/20	5.11	76.3	0.242	13.12	15.74	6.54	--	--
	MW01-20210128	01/28/21	3.20	29	0.203	18.52	12.30	5.29	--	--
	MW01-20210420	04/20/21	6.18	17.7	0.200	16.40	14.54	6.65	--	<1.0
	MW01-20210727	07/27/21	2.74	134.7	0.229	11.17	16.70	7.4	--	--
	MW01-20211012	10/12/21	3.77	-50.3	0.291	14.50	16.50	6.97	--	--
	MW01-20220427	04/27/22	5.21	47.1	0.227	8.40	13.67	6.65	--	--
	MW01-20221117	11/17/22	4.89	103.3	0.392	5.2	15.00	6.68	--	--
	MW01-20230419	04/19/23	6.32	-31.6	0.280	<2000	12.24	6.65	--	--
	MW01-20231025	10/25/23	3.30	-23.1	0.304	30.3	14.80	6.58	--	--
MW02	MW02-20181025	10/25/18	2.60	106.9	0.517	21.0	15.73	6.99	--	--
	MW02-20200421	04/21/20	2.72	4.6	0.617	6.30	12.33	6.97	--	--
	MW02-20200721	07/21/20	3.51	-31.5	0.977	5.46	16.65	6.14	--	--
	MW02-20201020	10/20/20	1.92	67.1	0.699	4.30	16.56	6.75	--	--
	MW02-20210128	01/28/21	3.33	15.8	0.699	2.41	11.73	5.58	--	--
	MW02-20210420	04/20/21	2.99	10.4	0.637	2.73	13.25	7.22	--	--
	MW02-20210727	07/27/21	0.78	66.8	0.622	3.06	17.10	8.02	--	--
	MW02-20211012	10/12/21	3.64	-32.3	0.962	5.30	16.10	7.16	--	--
	MW02-20220427	04/27/22	3.81	193.2	0.670	2.85	12.00	7.67	--	--
	MW02-20221117	11/17/22	2.64	99.7	0.745	0.7	15.0	7.00	--	--
	MW02-20230419	04/19/23	4.72	-48.6	0.586	2.32	11.06	7.01	--	--
	MW02-20231025	10/25/23	4.31	-34.6	0.473	2.83	14.81	6.84	--	--
MW03	MW03-20181025	10/25/18	1.80	143.7	0.552	54.6	16.71	7.28	--	--
	MW03-20200129	01/29/20	22.1	-33.0	1.143	6.57	12.52	6.83	--	--
	MW03-20200421	04/21/20	0.60	-190.1	1.115	7.45	12.43	6.77	--	--
	MW03-20200720	07/20/20	0.92	116.5	1.137	6.63	15.93	5.78	--	--
	MW03-20201020	10/20/20	0.93	11.1	1.136	4.77	16.50	6.78	--	--
	MW03-20210128	01/28/21	1.48	9.7	1.230	1.90	12.95	5.89	--	--
	MW03-20210420	04/20/21	1.07	138.2	1.153	3.54	12.87	7.10	--	--
	MW03-20210727	07/27/21	0.09	-200.9	1.028	3.39	17.10	7.71	--	--
	MW03-20211012	10/12/21	0.33	-76.5	1.890	--	15.99	6.91	--	--
	MW03-20220427	04/27/22	0.18	-123.9	1.180	2.26	12.40	7.36	--	--
	MW03-20221117	11/17/22	0.15	-130.3	1.492	0.7	15.4	6.77	--	--
	MW03-20230419	04/19/23	0.31	-116.2	1.200	1.50	11.12	6.67	--	--
	MW03-20231025	10/25/23	0.86	-110.9	0.948	5.05	14.88	6.66	--	--
	MW03-20231113	11/13/23	0.42	-164.4	0.874	6.02	12.99	6.6	--	--
	MW03-20240416	04/16/24	0.25	-217.8	0.715	12.1	12.20	6.64	--	--
	MW03-20241028	10/28/24	0.61	-5.7	0.823	3.96	16.1	6.32	--	--
MW05	MW05-20190207	02/07/19	5.69	172.2	0.253	7.7	8.97	6.82	--	--
	MW05-20200128	01/28/20	0.95	-351.6	0.583	501	7.84	5.49	--	260
	MW05-20200421	04/21/20	0.98	-13.0	0.580	74	12.17	5.25	--	--
	MW05-20200720	07/20/20	1.42	158.2	0.424	47	17.70	4.32	--	--
	MW05-20201020	10/20/20	0.30	57.1	0.320	589	16.06	5.93	--	--
	MW05-20210128	01/28/21	1.31	32.8	0.304	37	12.31	3.48	--	--
	MW05-20210421	04/21/21	1.19	161.1	0.474	51	11.91	6.25	--	29
	MW05-20210727	07/27/21	0.18	-122.5	0.492	25.5	16.80	6.70	--	--
	MW05-20211013	10/13/21	0.16	-146.7	0.420	3233	15.90	6.19	--	--
	MW05-20220427	04/27/22	0.52	-59.7	0.459	54.3	12.20	6.54	--	29
	MW05-20221117	11/17/22	0.24	97.8	0.367	77.3	14.6	4.74	--	--
	MW05-20230420	04/20/23	0.65	-82.1	0.559	92.5	11.1	6.05	--	29
	MW05-20231026	10/26/23	0.50	-81.0	0.461	18.4	13.4	6.41	--	34
	MW05-20240416	04/16/24	0.37	-57.0	0.591	21.2	10.5	6.21	--	37
	MW05-20241028	10/28/24	0.55	-69.8	0.646	32.1	14.2	5.85	--	26
MW06	MW06-20190207	02/07/19	1.43	118.8	0.458	8.88	13.23	7.93	--	--
	MW06-20200128	01/28/20	14.7	-15.6	1.126	12.34	13.56	6.36	--	--
	MW06-20200421	04/21/20	1.12	6.1	0.748	6.67	14.10	6.59	--	--
	MW06-20200721	07/21/20	0.11	-215.2	0.799	4.47	17.86	6.26	--	--
	MW06-20201020	10/20/20	0.32	-44.1	0.620	4.68	16.18	7.28	--	--
	MW06-20210128	01/28/21	0.46	-111	0.717	4.16	12.32	7.25	--	--
	MW06-20210420	04/20/21	0.83	136.4	0.766	3.80	13.79	7.56	--	--
	MW06-20210727	07/27/21	9.53	-134	0.582	4.10	18.09	8.40	--	--
	MW06-20211012	10/12/21	0.59	-71.8	0.506	0.77	15.09	7.57	--	--
	MW06-20220426	04/26/22	0.22	-87.6	0.730	7.74	12.80	7.15	--	3.8
	MW06-20221115	11/15/22	0.20	-10.7	1.075	1.1	14.3	8.44	--	--
	MW06-20230418	04/18/23	0.44	-131.2	0.754	26.9	11.64	7.16	--	4.6
	MW06-20231024	10/24/23	0.36	-167.5	0.894	14.4	14.97	7.75	--	5
	MW06-20240415	04/15/24	*7.44*	*-99.5*	*1.062*	*608*	*11.5*	*6.68*	--	81
	MW06-20241025	10/25/24	*9.53*	*-133.3*	*0.960*	*5.10*	*13.5*	*7.36*	--	8.3
MW15	MW15-20181022	10/22/18	1.71	107.7	0.599	5.39	16.59	6.79	--	2.2
	MW15-20200128	01/28/20	0.60	-338.5	0.749	28.7	8.09	6.13	--	22
	MW15-20200421	04/21/20	0.68	-249.1	0.628	8.54	12.65	5.83	--	--
	MW15-20200721	07/21/20	2.28	216.4	0.763	14.71	16.96	4.06	--	--
	MW15-20201019	10/19/20	19.19	123.6	0.575	9.11	17.39	5.74	--	--
	MW15-20210127	01/27/21	0.56	60.8	0.696	5.72	12.66	6.75	--	--
	MW15-20210420	04/20/21	1.36	66.2	0.672	3.09	13.11	5.98	--	11
	MW15-20210726	07/26/21	0.22	-166.6	0.903	15.90	17.80	7.07	--	--
	MW15-20211012	10/12/21	0.13	-196.6	0.735	12.10	17.00	6.56	--	--
	MW15-20220426	04/26/22	0.41	-10.7	0.818	9.10	11.92	6.53	--	3.8
	MW15-20221116	11/16/22	0.23	-95.3	0.997	14.8	15.8	6.12	--	--
	MW15-20230419	04/19/23	0.99	86.3	0.867	15.7	13.8	6.27	--	3.7
	MW15-20231024	10/24/23	17.36*	-12	0.970	41.9	16.2	6.53	--	6.2
	MW15-20240415	04/15/24	0.39	-66.1	0.889	<2000	12.5	5.10	--	1300
	MW15-20241028	10/28/24	0.21	5.8	0.777	134.0	16.7	5.32	--	200

SoundEarth Strategies

Table 3
Geochemical and Water Quality Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Dissolved Oxygen	ORP[1] (mV)	Specific Conductivity[1] (mS/cm)	Turbidity[1] (NTU)	Temperature[1] (°C)	pH[1]	Alkalinity[2] (mg/L $CaCO_3$)	Total Organic Carbon[3] (mg/L)
MW16	MW16-20181022	10/22/18	2.53	86	0.485	3.14	16.31	6.7	--	--
MW19	MW19-20181024	10/24/18	3.60	126.2	0.770	7.32	16.00	6.99	--	--
	MW19-20231025	10/25/23	5.87	166	1.070	3.10	14.52	6.73	--	2.3
	MW19-20240415	04/15/24	3.08	-20	0.486	11.50	12.30	7.01	--	3.6
	MW19-20241024	10/24/24	4.51	75.7	0.760	2.04	15.70	7.14	--	1.7
MW21	MW21-20181022	10/22/18	1.10	79.2	0.528	8.55	16.28	7.81	--	5.4
	MW21-20200129	01/29/20	40.9	21.5	0.886	3205	14.65	5.63	--	--
	MW21-20200421	04/21/20	1.08	45.0	0.962	21.34	14.48	5.96	--	--
	MW21-20200722	07/22/20	2.68	138.2	1.167	29.39	16.01	5.37	--	--
	MW21-20201020	10/20/20	0.33	2.9	1.185	23.60	16.30	6.00	--	--
	MW21-20210128	01/28/21	0.39	-72.2	1.095	33.20	13.77	6.78	--	--
	MW21-20210420	04/20/21	1.33	124.8	0.994	12.20	15.47	6.86	--	--
	MW21-20210727	07/27/21	4.23	-113.0	1.440	141.00	17.20	7.36	--	--
	MW21-20211012	10/12/21	0.69	-55.9	1.435	6.12	15.68	6.71	--	--
	MW21-20220426	04/26/22	0.19	-93.8	1.130	16.50	13.80	6.82	--	23
	MW21-20221117	11/17/22	0.16	-99.8	1.425	4.9	14.7	6.67	--	--
	MW21-20230420	04/20/23	0.29	-109.2	1.300	9.53	11.99	6.76	--	4.4
	MW21-20231025	10/25/23	0.48	-158.0	1.062	9.05	14.22	6.97	--	7.6
	MW21-20240416	04/16/24	0.13	-96.3	1.440	67.50	13.20	5.45	--	760
	MW21-20241024	10/24/24	0.15	-114.5	1.016	118.00	15.5	6.03	--	230
MW24	MW24-20181024	10/24/18	5.45	154.1	0.441	2.88	15.58	7.00	--	--
	MW24-20200129	01/29/20	0.29	-429.0	1.989	52.5	7.40	6.92	--	--
	MW24-20200421	04/21/20	0.20	-148.4	1.660	75	11.89	6.75	--	--
	MW24-20200721	07/21/20	3.41	59.1	1.753	8.52	15.98	6.87	--	--
	MW24-20201019	10/19/20	0.31	-86.7	1.744	7.22	15.71	6.47	--	--
	MW24-20210128	01/28/21	1.73	34.7	1.056	11.00	11.09	6.05	--	--
	MW24-20210420	04/20/21	0.49	-125.6	1.126	16.00	13.05	6.71	--	--
	MW24-20210726	07/26/21	0.00	-173.0	1.570	120.00	18.99	7.29	--	--
	MW24-20211012	10/12/21	0.11	-260.4	2.227	14.20	15.30	6.88	--	--
	MW24-20220427	04/27/22	0.41	-125.1	1.232	10.50	10.90	7.08	--	--
	MW24-20221116	11/16/22	1.52	-122.4	1.965	7.8	13.3	6.55	--	--
	MW24-20230419	04/19/23	0.76	-155.1	1.445	24.9	11.3	6.82	--	--
	MW24-20231026	10/26/23	0.38	-193.3	1.268	62.3	14.4	7.31	--	--
	MW24-20240416	04/16/24	0.49	-58.3	1.777	53.6	11.5	6.52	--	--
	MW24-20241028	10/28/24	0.29	-94.4	1.301	90.9	15.2	6.68	--	--
MW25	MW25-20181025	10/25/18	7.15	101.8	0.051	369	15.78	7.09	--	--
	MW25-20200128	01/28/20	15.30	17.4	0.134	24	11.99	7.43		
	MW25-20200421	04/21/20	Grab Sample Collected (No Geochemical Data Recorded)							
	MW25-20200721	07/21/20	0.38	-199.5	0.276	27.7	16.47	6.43	--	--
	MW25-20201020	10/20/20	0.15	-68.4	0.340	13.22	16.18	6.71	--	--
	MW25-20210128	01/28/21	0.86	-96.2	0.452	12.00	11.99	7.57	--	--
	MW25-20210420	04/20/21	0.51	146.0	0.427	6.25	12.10	7.85	--	--
	MW25-20210727	07/27/21	2.86	-188.0	0.416	82.60	19.59	7.99	--	--
	MW25-20211012	10/12/21	2.38	-21.6	0.072	8.68	15.29	6.89	--	--
	MW25-20220426	04/26/22	0.25	75.0	0.088	23.20	12.20	6.73	--	--
	MW25-20221115	11/15/22	0.21	0.3	0.158	1,267	14.7	8.49	--	--
	MW25-20230418	04/18/23	2.96	107.6	0.112	<2000	9.76	6.26	--	--
	MW25-20231024	10/24/23	0.23	-105.0	0.141	556	15.40	6.98	--	--
MW26	MW26-20181022	10/22/18	3.22	108.4	0.262	3.89	15.61	7.26	--	--
	MW26-20200128	01/28/20	7.22	-202.0	1.244	2.51	7.45	6.74	--	--
	MW26-20200421	04/21/20	6.92	164.2	0.843	5.52	11.42	6.70	--	--
	MW26-20200721	07/21/20	1.31	194.6	0.540	8.29	16.19	6.60	--	--
	MW26-20201019	10/19/20	20.80	180.6	0.299	5.03	16.16	6.27	--	--
	MW26-20210128	01/28/21	3.98	125.3	0.297	8.00	11.14	8.62	--	--
	MW26-20210420	04/20/21	5.96	74.0	0.227	1.83	11.86	6.58	--	--
	MW26-20210726	07/26/21	4.00	104.0	0.323	0.10	19.23	7.35	--	--
	MW26-20211012	10/12/21	4.68	-30.4	0.792	3.80	15.70	6.94	--	--
	MW26-20220427	04/27/22	7.10	122.2	0.472	0.40	10.75	6.71	--	--
	MW26-20221117	11/17/22	6.16	246.3	0.448	7.9	14.2	5.49	--	--
	MW26-20230419	04/19/23	6.81	121.0	0.755	0.53	11.0	6.91	--	--
	MW26-20231024	10/24/23	18.62*	106.0	0.788	2.26	14.2	7.09	--	--
MW27	MW27-20190207	02/07/19	2.17	138.5	0.543	93.2	11.87	7.02	--	--
	MW27-20209128	01/28/20	--	102.2	0.918	9.76	12.01	6.23	--	--
	MW27-20200421	04/21/20	3.14	155.0	0.685	7.42	12.87	6.36	--	--
	MW27-20200721	07/21/20	0.28	101.6	0.784	7.02	17.66	5.71	--	--
	MW27-20201020	10/20/20	0.49	78.1	0.639	11.20	16.80	6.16	--	--
	MW27-20210128	01/28/21	2.06	57.2	0.894	11	11.17	7.74	--	--
	MW27-20210420	04/20/21	3.81	202.4	0.776	6.91	12.9	7.02	--	--
	MW27-20210727	07/27/21	0.37	-99	0.841	5.2	21.68	7.38	--	--
	MW27-20211012	10/12/21	0.82	-10.8	0.802	0.18	15.54	6.62	--	--
	MW27-20220426	04/26/22	0.66	201.1	0.814	7.94	12.80	6.79	--	--
	MW27-20221115	11/15/22	0.32	182.8	1.656	2.5	15.7	9.04	--	--
	MW27-20230418	04/18/23	1.58	132.2	1.039	5.56	11.0	6.57	--	--
	MW27-20231025	10/25/23	0.80	-82.1	1.062	6.86	15.8	6.86	--	--
	MW27-20240415	04/15/24	*3.47*	*124.0*	*1.168*	*5.70*	*11.0*	*6.64*	--	--
	MW27-20241025	10/25/24	*0.45*	*15.4*	*1.195*	*4.92*	*15.2*	*6.64*	--	--
MW28	MW28-20200128	01/28/20	12.8	-17.20	0.834	4.38	13.29	7.17	--	4.4
	MW28-20200422	04/22/20	2.32	70.80	0.913	4.49	12.38	7.14	--	--
	MW28-20200721	07/21/20	0.09	-196.0	1.064	3.47	15.50	6.56	--	--
	MW28-20201020	10/20/20	0.84	-5.7	0.879	4.99	16.01	7.90	--	--
	MW28-20210128	01/28/21	0.32	-20.8	0.835	4.25	13.22	7.33	--	--
	MW28-20210420	04/21/21	3.81	154.1	0.883	2.54	12.11	7.40	--	6.0
	MW28-20210727	07/13/21	0.37	-167.6	0.854	2.97	16.60	8.21	--	--
	MW28-20211013	10/13/21	0.82	-147.9	0.756	1.93	15.30	7.47	--	--
	MW28-20220427	04/27/22	0.26	-89.3	0.991	0.40	11.88	7.28	--	4.8
	MW28-20221117	11/17/22	0.38	-12.7	1.077	0.8	14.8	6.96	--	--
	MW28-20230420	04/20/23	0.37	-86.6	1.047	3.09	10.30	6.90	--	3.3
	MW28-20231026	10/26/23	0.99	-24.8	0.747	2.96	13.95	7.56	--	6.0
	MW28-20240416	04/16/24	0.24	-118.3	0.844	11.60	11.40	6.77	--	6.0
	MW28-20241028	10/28/24	0.08	-104.6	0.983	17.3	15.4	7.07	--	4.8

SoundEarth Strategies

Table 3
Geochemical and Water Quality Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Dissolved Oxygen	ORP[1] (mV)	Specific Conductivity[1] (mS/cm)	Turbidity[1] (NTU)	Temperature[1] (°C)	pH[1]	Alkalinity[2] (mg/L $CaCO_3$)	Total Organic Carbon[3] (mg/L)
MW30	MW30-20210127	01/27/21	3.58	172.4	0.362	3.64	13.83	8.07	--	--
	MW30-20210420	04/19/21	0.98	182.8	0.977	3.58	14.31	6.62	--	--
	MW30-20210726	07/26/21	0.13	2.9	0.653	2.15	16.70	7.70	--	--
	MW30-20211011	10/11/21	0.36	75.5	0.638	3.50	16.60	6.81	--	--
	MW30-20220426	04/26/22	1.55	157.0	1.467	0.50	12.51	6.33	--	--
	MW30-20221116	11/16/22	0.18	55.7	1.412	0.9	15.8	6.60	--	--
	MW30-20230418	04/18/23	2.15	123.7	0.954	2.31	11.90	6.29	--	--
	MW30-20231024	10/24/23	0.75	-96.4	0.989	1.43	14.21	6.96	--	--
	MW30-20240415	04/15/24	0.26	24.8	1.147	4.57	13.0	6.53	--	--
	MW30-20241024	10/24/24	0.59	36.3	1.096	1.99	15.9	6.76	--	--
MW32	MW32-20221116	11/16/22	0.35	-148.9	0.944	1.4	15.4	7.55	--	--
	MW32-20230418	04/18/23	0.15	-234.8	0.531	1.05	12.8	7.93	--	2.2
	MW32-20231025	10/25/23	4.18	-166.0	0.544	2.90	14.9	7.57	--	2.2
	MW32-20240416	04/16/24	0.25	-4.6	0.543	4.54	12.8	7.88	--	2.6
	MW32-20241025	10/25/24	0.14	-122.2	0.452	2.59	16.2	7.68	--	1.6
MW34	MW34-20221116	11/16/22	0.19	-166.9	0.630	2.8	15.0	7.71	--	--
	MW34-20230418	04/18/23	0.19	-359.8	0.445	3.42	13.0	8.10	--	6.2
	MW34-20231026	10/26/23	0.27	-98.6	0.440	8.25	15.1	7.45	--	1.8
	MW34-20240416	04/16/24	2.94	-142.9	0.444	4.73	11.8	8.05	--	2.3
	MW34-20241024	10/24/24	0.60	-99.7	0.370	2.40	15.6	7.35	--	2.0
MW36	MW36-20221115	11/15/22	0.19	-6.8	1.371	1.6	14.5	8.88	--	--
	MW36-20230418	04/18/23	0.15	-172.8	0.747	1.40	11.3	7.74	--	--
	MW36-20231025	10/25/23	4.92*	-160	0.858	2.50	13.5	7.41	--	--
	MW36-20240415	04/15/24	0.57	-9.0	0.76	2.89	12.1	7.62	--	--
	MW36-20241024	10/24/24	0.61	-93.5	0.659	3.72	14.6	7.33	--	--
Deep Water-Bearing Zone Wells										
MW07	MW7-060206	06/02/06	0.11	20.6	--	--	15.30	7.62	--	--
	MW07-20140910	09/10/14	0.34	20.7	0.305	21.9	16.70	7.42	140	<1.0
	Monitoring Well Decommissioned									
MW08	MW08-20140909	09/09/14	0.22	21	0.302	40.5	15.98	8.00	130	<1.0
	MW08-20181025	10/25/18	1.78	114.9	0.369	5.16	16.17	7.69	--	1.10
	MW08-20200128	01/28/20	0.68	-310.7	0.325	10.4	8.78	7.89	--	<1.0
	MW08-20200421	04/21/20	0.57	12.9	0.32	5.16	13.18	8.39	--	--
	MW08-20200721	07/21/20	1.66	191.1	0.288	5.84	15.22	6.34	--	--
	MW08-20201019	10/19/20	0.18	87.0	0.281	12	14.85	7.74	--	--
	MW08-20210127	01/27/21	2.76	99.4	0.298	4	13.59	7.36	--	--
	MW08-20210420	04/20/21	1.87	55.6	0.278	1.73	13.74	7.62	--	<1.0
	MW08-20210726	07/26/21	0.12	-153.8	0.280	2.89	15.40	8.98	--	--
	MW08-20211012	10/12/21	0.86	-173.6	0.398	5.60	13.70	7.87	--	--
	MW08-20220426	04/26/22	0.37	-15.3	0.313	4.20	12.86	8.03	--	--
	MW08-20221116	11/16/22	0.21	-134.1	0.569	1.4	14.6	7.85	--	--
	MW08-20230419	04/19/23	0.32	58.3	0.320	9.26	13.0	7.99	--	--
	MW08-20231023	10/23/23	2.22	0.3	0.324	9.46	15.2	8.41	--	--
MW09	MW09-20140910	09/10/14	2.90	-87	0.241	0.98	17.90	7.46	96	<1.0
	MW09-20181024	10/24/18	4.52	161.1	0.276	11.90	16.72	7.23	--	<1.0
	MW09-20200129	01/29/20	12.2	-54.5	0.276	4.28	14.52	7.26	--	--
	MW09-20200421	04/21/20	0.28	-70.7	0.258	5.21	14.02	7.22	--	--
	MW09-20200721	07/21/20	2.03	203.5	0.263	7.95	19.31	6.44	--	--
	MW09-20201020	10/20/20	0.55	-37.4	0.535	5.31	16.24	9.24	--	--
	MW09-20210128	01/28/21	1.02	-15.4	0.274	1.91	14.06	5.59	--	--
	MW09-20210420	04/20/21	0.56	184.5	0.268	2.77	15.00	7.55	--	--
	MW09-20210727	07/27/21	0.08	3.2	0.260	2.73	18.20	7.72	--	--
	MW09-20211013	10/13/21	0.50	-89.1	0.232	2.61	15.40	7.21	--	--
	MW09-20220427	04/27/22	0.25	35.4	0.243	2.92	14.90	7.3	--	<1.0
	MW09-20221117	11/17/22	0.19	56.4	0.259	4.9	14.6	5.57	--	--
	MW09-20230420	04/20/23	0.28	-14.8	0.295	1.75	12.6	6.88	--	<1.0
	MW09-20231025	10/25/23	0.30	-81.9	0.298	3.49	14.6	6.75	--	<1.0
	MW09-20240416	04/16/24	10.69	-5.8	0.281	4.12	13.9	6.64	--	<1.0
	MW09-20241028	10/28/24	0.15	12.3	0.296	13.90	15.0	6.75	--	<1.0
MW10	MW10-20140910	09/10/14	0.29	-49	0.331	36.3	16.65	7.89	120	<1.0
	MW10-20181024	10/24/18	1.05	102.9	0.356	7.37	16.63	7.96	--	1.00
	MW10-20200129	01/29/20	27.5	-69.6	0.322	4.99	14.68	7.04	--	8.6
	MW10-20200422	04/22/20	1.42	12.5	0.317	4.33	14.04	7.05	--	--
	MW10-20200722	07/22/20	2.21	73.8	0.337	6.37	16.40	6.00	--	--
	MW10-20201020	10/20/20	0.19	-47.2	0.298	4.54	15.73	7.48	--	--
	MW10-20210128	01/28/21	0.32	-67.5	0.34	3.38	13.17	7.43	--	--
	MW10-20210420	04/20/21	0.38	154.6	0.320	2.61	15.76	8.15	--	<1.0
	MW10-20210727	07/27/21	0.00	-145	0.370	57.20	17.08	8.00	--	--
	MW10-20211012	10/12/21	0.38	-56.8	0.337	--	14.98	7.20	--	--
	MW10-20220426	04/26/22	0.21	-101.8	0.244	6.37	14.10	7.43	--	1.7
	MW10-20221117	11/17/22	0.18	-116.5	0.472	2.4	14.0	7.16	--	--
	MW10-20230420	04/20/23	0.28	-76.7	0.314	2.42	12.37	7.09	--	1.6
	MW10-20231025	10/25/23	0.30	-173	0.339	11.00	14.51	7.26	--	<1.0
	MW10-20240417	04/17/24	0.44	-176.4	0.342	8.12	12.5	7.08	--	11
	MW10-20241028	10/28/24	0.08	-123.3	0.366	5.61	15.4	6.98	--	<1.0
MW11	MW11-060206	06/02/06	0.32	149.2	--	--	13.65	7.15	--	--
	MW11-20141007	10/07/14	0.22	-124.5	0.252	40.0	15.00	9.15	110	2.6
	MW11-20230419	04/19/23	3.17	-65.7	0.358	7.08	12.47	7.32	--	7.0
	MW11-20231024	10/24/23	16.05*	177	0.333	9.13	14.22	7.55	--	<1.0
	MW11-20240415	04/15/24	0.86	175.9	0.278	12.40	12.10	7.02	--	5.3
	MW11-20241024	10/24/24	1.84	117.1	0.485	51.20	14.4	6.97	--	20
MW12	MW12-060206	06/02/06	0.11	-91.2	--	--	15.34	7.14	--	--
	MW12-20181024	10/24/18	1.36	109.3	0.281	4.2	15.81	7.61	--	--
MW13	MW13-060206	06/02/06	0.11	53.1	--	--	14.91	7.4	--	--
	MW13-20181024	10/24/18	3.66	175.8	0.246	3.56	15.83	7.37	--	--
	MW13-20230419	04/19/23	5.95	90.7	0.264	0.35	12.80	6.87	--	<1.0
	MW13-20231024	10/24/23	17.96*	70	0.298	2.05	15.10	7.60	--	<1.0
	MW13-20240415	04/15/24	2.11	157.5	0.243	2.11	13.80	6.56	--	<1.0
	MW13-20241024	10/24/24	0.18	-125.7	0.279	53.8	15.10	7.63	--	<1.0
MW14	MW14-060206	06/02/06	0.10	-103.5	--	--	15.12	7.5	--	--
	Monitoring Well Decommissioned									

SoundEarth Strategies

Table 3
Geochemical and Water Quality Parameters
Plastic Sales and Service Site
6870 Woodlawn Avenue Northeast
Seattle, Washington

Well ID	Sample ID	Sample Date	Dissolved Oxygen	ORP[1] (mV)	Specific Conductivity[1] (mS/cm)	Turbidity[1] (NTU)	Temperature[1] (°C)	pH[1]	Alkalinity[2] (mg/L $CaCO_3$)	Total Organic Carbon[3] (mg/L)
MW22	MW22-20140910	09/10/14	5.95	179.3	0.28	3.52	16.84	6.78	100	<1.0
	MW22-20181024	10/24/18	5.24	177.6	0.249	11.00	14.99	6.74	--	--
	MW22-20200128	01/28/20	6.02	-77.8	0.263	6.63	8.38	6.92	--	<1.0
	MW22-20200421	04/21/20	8.54	181.0	0.176	5.21	12.16	6.38	--	--
	MW22-20200721	07/21/20	4.60	226.2	0.186	6.26	14.85	5.95	--	--
	MW22-20201019	10/19/20	4.80	138.0	0.224	3.43	14.42	6.92	--	--
	MW22-20210127	01/27/21	5.44	119.1	0.243	3.79	12.66	7.25	--	--
	MW22-20210420	04/20/21	7.64	77.9	0.194	1.75	12.75	6.55	--	<1.0
	MW22-20210726	07/26/21	5.13	116.0	0.250	0.00	19.66	7.32	--	--
	MW22-20211012	10/12/21	5.04	-84.1	0.309	2.30	14.50	7.24	--	--
	MW22-20220426	04/26/22	7.33	61.9	0.245	2.00	12.32	6.99	--	--
	MW22-20221116	11/16/22	3.34	33.2	0.509	1.0	13.0	6.92	--	--
	MW22-20230419	04/19/23	5.52	73.4	0.275	0.58	11.8	7.10	--	--
	MW22-20231024	10/24/23	21.99*	54.0	0.299	0.55	14.1	7.37	--	--
MW29	MW29-20200128	01/28/20	9.90	-7.6	0.277	47.58	14.19	7.38	--	<1.0
	MW29-20200422	04/22/20	1.30	68.2	0.249	7.26	12.89	7.52	--	--
	MW29-20200721	07/21/20	1.45	183.5	0.235	9.76	17.80	6.40	--	--
	MW29-20201019	10/19/20	14.32	149.0	0.232	5.76	14.79	6.68	--	--
	MW29-20210128	01/28/21	1.31	-16.6	0.247	1.88	13.42	7.05	--	--
	MW29-20210420	04/20/21	0.59	193.2	0.247	7.25	12.90	8.28	--	<1.0
	MW29-20210726	07/26/21	0.00	-167.0	0.283	2.10	16.45	8.37	--	--
	MW29-20211012	10/12/21	0.10	-221.7	0.337	3.40	15.00	7.75	--	--
	MW29-20220427	04/27/22	0.29	-113.0	0.273	0.40	12.37	7.92	--	--
	MW29-20221116	11/16/22	0.22	-147.1	0.499	2.9	14.1	7.55	--	--
	MW29-20230419	04/19/23	0.38	-86.8	0.265	8.82	11.77	7.59	--	--
	MW29-20231025	10/25/23	3.94	-112.0	0.306	21.50	13.63	7.13	--	--
	MW29-20240416	04/16/24	0.24	-41.9	0.251	29.0	13.0	7.08	--	--
	MW29-20241024	10/24/24	0.14	-150.2	0.265	23.1	14.7	7.69	--	--
MW31	MW31-20210127	01/27/21	4.56	21.8	0.341	8.21	14.00	7.61	--	--
	MW31-20210420	04/19/21	1.24	-70.2	0.311	5.83	15.71	7.56	--	--
	MW31-20210726	07/26/21	0.10	-182.8	0.310	2.25	16.60	8.19	--	--
	MW31-20210819	08/19/21	0.45	-119.7	0.328	4.28	15.90	6.88	--	--
	MW31-20211011	10/11/21	0.45	-95.4	0.348	5.30	14.78	7.56	--	--
	MW31-20220426	04/26/22	0.26	-250.1	0.371	1.20	13.51	8.49	--	2.1
	MW31-20221116	11/16/22	0.11	-247.3	0.661	0.9	14.6	7.75	--	--
	MW31-20230418	04/18/23	0.19	-291.2	0.358	2.26	12.72	7.78	--	3.2
	MW31-20231026	10/26/23	0.21	-324.4	0.357	5.88	13.78	8.74	--	8.7
	MW31-20240417	04/17/24	0.44	-279.7	0.360	3.21	12.90	7.88	--	3.2
	MW31-20241028	10/28/24	0.45	-268.5	0.381	2.06	14.70	7.69	--	2.2
MW33	MW33-20221116	11/16/22	0.13	-301.3	0.576	2.4	14.7	8.21	--	--
	MW33-20230418	04/18/23	0.18	-353.2	0.286	2.29	12.0	8.39	--	--
	MW33-20231024	10/24/23	0.50	-264.4	0.320	3.38	13.4	8.61	--	--
	MW33-20240416	04/16/24	6.08	-172.9	0.297	2.63	12.3	8.36	--	--
	MW33-20241024	10/24/24	0.14	-196.5	0.299	4.86	15.3	8.39	--	--
MW35	MW35-20221115	11/15/22	0.16	-293.4	0.837	6.8	14.4	9.87	--	--
	MW35-20230418	04/18/23	0.13	-284.5	0.312	4.55	13.2	8.60	--	3.8
	MW35-20231026	10/26/23	0.03	-113.6	0.306	1.52	14.6	7.60	--	<1.0
	MW35-20240416	04/16/24	0.18	-98.6	0.303	4.55	12.5	8.31	--	<1.0
	MW35-20241028	10/28/24	0.61	-148.9	0.307	1.34	14.2	7.98	--	<1.0
MW37	MW37-20221115	11/15/22	0.18	-77.3	0.509	1.1	14.3	9.23	--	--
	MW37-20230418	04/18/23	0.22	-194.2	0.273	1.27	12.5	8.40	--	--
	MW37-20231024	10/24/23	0.38	-194.0	0.299	0.99	13.7	8.62	--	--
	MW37-20240415	04/15/24	0.22	-49.4	0.276	3.23	12.6	8.27	--	--
	MW37-20241025	10/25/24	0.19	-193.0	0.277	1.25	15.2	8.36	--	--
IW33	IW33-20190312	03/12/19	--	76.3	0.612	2.75	12.99	8.19	--	--
IW34	IW34-20190312	03/12/19	--	34.9	0.298	5.76	14.62	8.57	--	--
	IW34-20231117	11/17/23	0.39	-194.0	0.585	7.34	12.42	5.85	--	--

NOTES:

Data prior to 2006 obtained by Farallon Consulting LLC of Issaquah, Washington.

[1]Analyzed by field instrument.

[2]Analyzed by EPA SM 2320B.

[3]Analyzed by EPA SM 5310B.

*Dissolved oxygen value likely inaccurate due to water quality meter DO probe malfunctioning.

-- = not analyzed

< = not detected at a concentration above the laboratory reporting limit

°C = degrees Celsius

$CaCO_3$ = calcium carbonate

DO = dissolved oxygen

EPA = US Environmental Protection Agency

mg/L = milligrams per liter

mS/cm = millisiemens per centimeter

mV = millivolts

NTU = nephelometric turbidity units

ORP = oxidation-reduction potential

SM = Standard Method

ATTACHMENT A

Temporal Analyses

Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW22**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

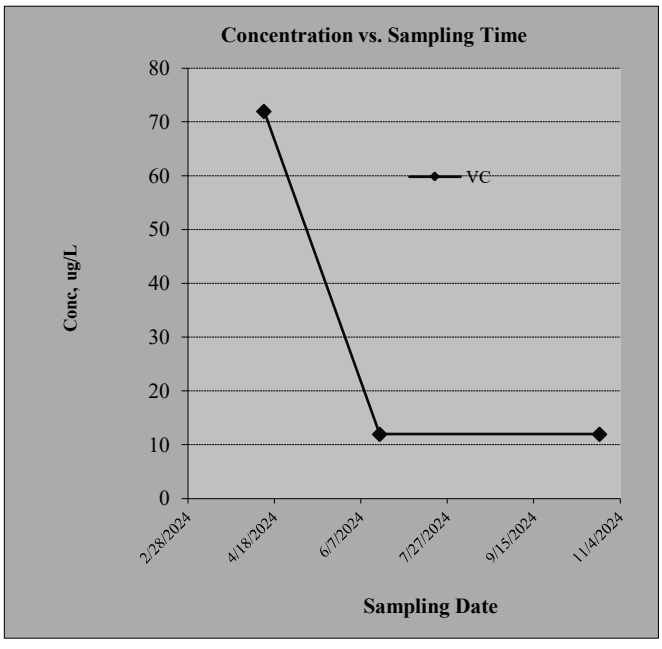
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	72					
#2	04/12/24	12					
#3	06/18/24	12					
#4	10/23/24	4.9					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	83.30%	NA	NA	NA	NA	NA
Plume Stability?	Undetermined	NA	NA	NA	NA	NA
Coefficient of Variation?	CV > 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	-5	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	25.23	NA	NA	NA	NA	NA
Standard Deviation?	31.36	NA	NA	NA	NA	NA
Coefficient of Variation?	1.24	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Undetermined**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW32**
Level of Confidence (Decision Criteria)? **85%**

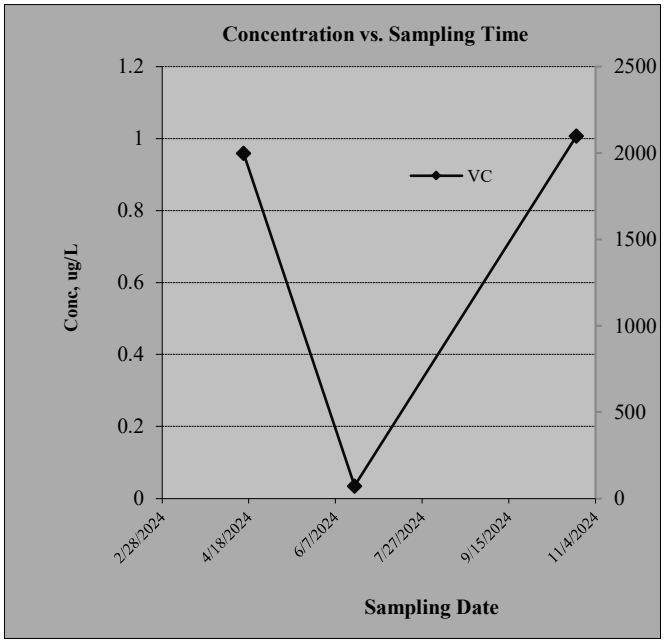
1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	2000					
#2	04/15/24	73					
#3	06/18/24	2100					
#4	10/24/24	1300					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	37.50%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	0	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	1368.25	NA	NA	NA	NA	NA
Standard Deviation?	933.97	NA	NA	NA	NA	NA
Coefficient of Variation?	0.68	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

VC



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW34**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

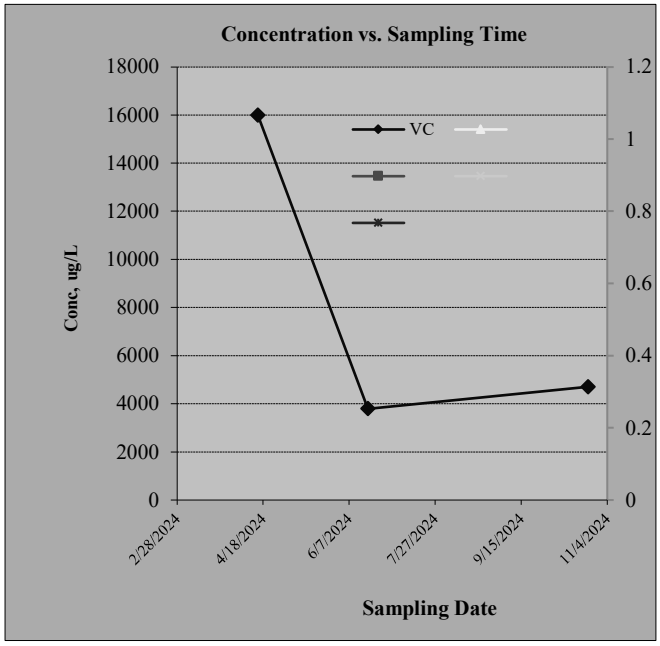
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	16000					
#2	04/15/24	3800					
#3	06/18/24	4700					
#4	10/24/24	4400					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	62.50%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	-2	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	7225.00	NA	NA	NA	NA	NA
Standard Deviation?	5861.95	NA	NA	NA	NA	NA
Coefficient of Variation?	0.81	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Stable**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales and Service Site*
Site Address:	*6870 Woodlawn Avenue East, Seattle, WA.*
Additional Description:	*CVOC*

Well (Sampling) Location? **IW16**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

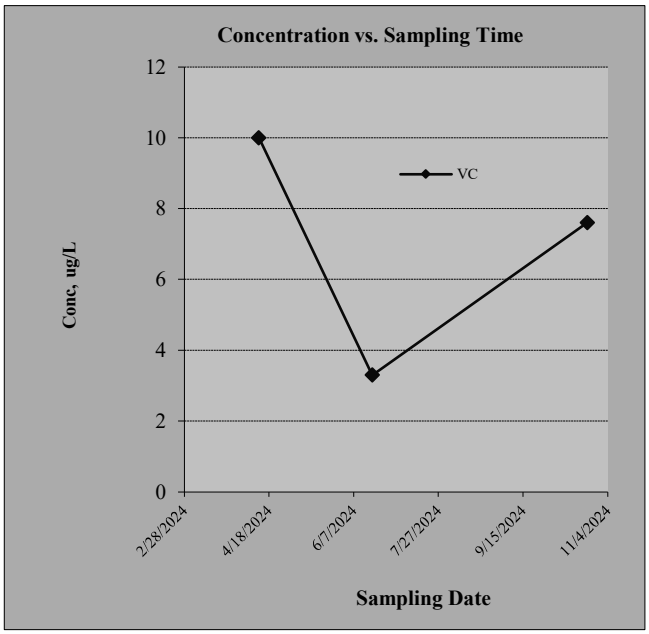
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/2023	10					
#2	4/12/2024	3.3					
#3	6/18/2024	7.6					
#4	10/23/2024	2.3					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	83.30%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	-4	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	5.80	NA	NA	NA	NA	NA
Standard Deviation?	3.62	NA	NA	NA	NA	NA
Coefficient of Variation?	0.62	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **#VALUE!**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW21**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

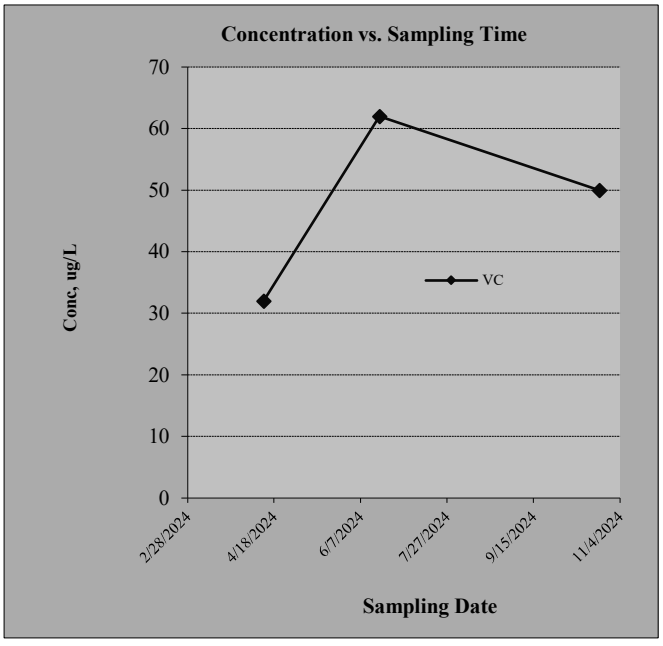
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	32					
#2	04/12/24	62					
#3	06/18/24	50					
#4	10/23/24	7					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	62.50%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	-2	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	37.75	NA	NA	NA	NA	NA
Standard Deviation?	23.92	NA	NA	NA	NA	NA
Coefficient of Variation?	0.63	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Stable**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW31**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

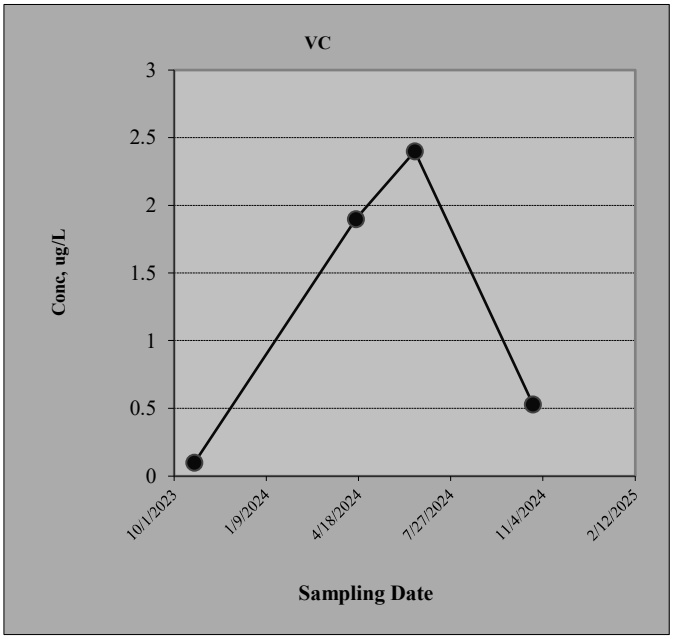
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	0.1					
#2	04/15/24	1.9					
#3	06/18/24	2.4					
#4	10/24/24	0.53					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	62.50%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	2	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	1.23	NA	NA	NA	NA	NA
Standard Deviation?	1.09	NA	NA	NA	NA	NA
Coefficient of Variation?	0.89	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Stable**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW33**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

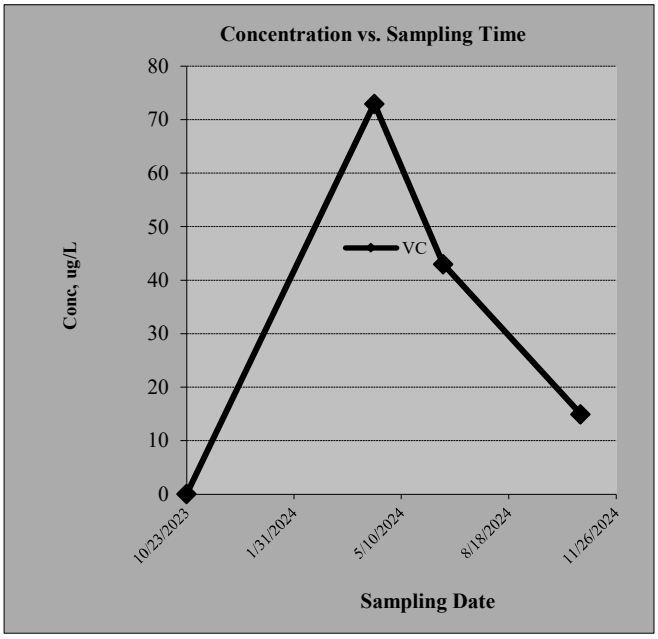
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	0.1					
#2	04/15/24	73					
#3	06/18/24	43					
#4	10/24/24	15					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	37.50%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	0	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	32.78	NA	NA	NA	NA	NA
Standard Deviation?	32.18	NA	NA	NA	NA	NA
Coefficient of Variation?	0.98	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Stable**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW59**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

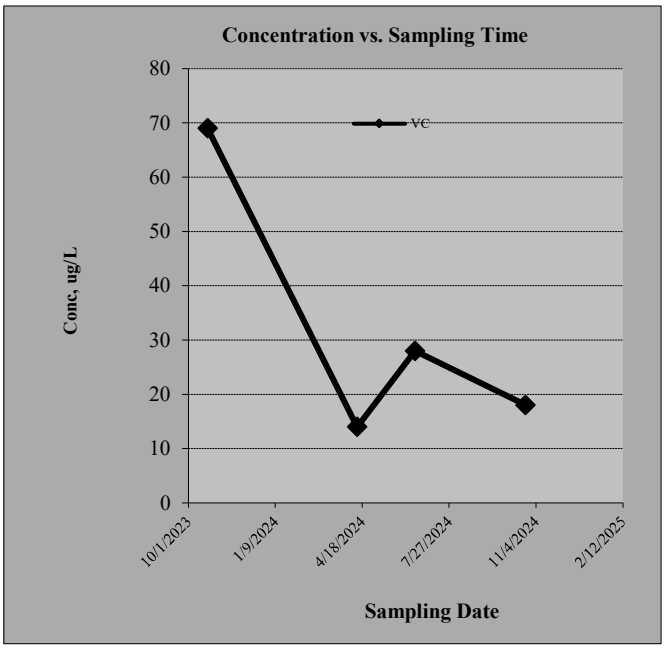
		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	69					
#2	04/12/24	14					
#3	06/18/24	28					
#4	10/23/24	18					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	62.50%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	-2	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	32.25	NA	NA	NA	NA	NA
Standard Deviation?	25.20	NA	NA	NA	NA	NA
Coefficient of Variation?	0.78	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Stable**



Module1: Mann-Kendall Trend Test for Plume Stability (Non-parametric Statistical Test)

Site Name:	*Plastic Sales Site*
Site Address:	*6870 Woodlawn Ave. NE*
Additional Description:	*CVOCs*

Well (Sampling) Location? **IW61**
Level of Confidence (Decision Criteria)? **85%**

1. Monitoring Well Information: Contaminant Concentration at a well: Quarterly sampling recommended.

		Hazardous Substances (unit is ug/L)					
Sampling Event	Date Sampled	VC					
#1	10/23/23	22					
#2	04/12/24	36					
#3	06/18/24	100					
#4	10/23/24	67					
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							
#13							
#14							
#15							
#16							

2. Mann-Kendall Non-parametric Statistical Test Results

Hazardous Substance?	**VC**					
Confidence Level Calculated?	83.30%	NA	NA	NA	NA	NA
Plume Stability?	Stable	NA	NA	NA	NA	NA
Coefficient of Variation?	CV <= 1	n<4	n<4	n<4	n<4	n<4
Mann-Kendall Statistic "S" value?	4	0	0	0	0	0
Number of Sampling Rounds?	4	0	0	0	0	0
Average Concentration?	56.25	NA	NA	NA	NA	NA
Standard Deviation?	34.70	NA	NA	NA	NA	NA
Coefficient of Variation?	0.62	NA	NA	NA	NA	NA
Blank if No Errors found		n<4	n<4	n<4	n<4	n<4

3. Temporal Trend: Plot of Concentration vs. Sampling Time

Hazardous substance? **VC**
Plume Stability? **Stable**