

City of Bothell

April 1, 2020

Jerome Cruz, Ecology Site Manager Department of Ecology, Northwest Regional Office Toxic Cleanup Program 3190 160<sup>th</sup> Avenue SE Bellevue, Washington 98008-5452

## Re: Quarterly Progress Report for period ending March 2020

Site Name:	BOTHELL SERVICE CENTER/ SIMON & SON
Site Address:	18107 Bothell Way NE, Bothell WA 98011
Parcel Numbers:	237420-0065
Facility/Site No.:	33215922
Consent Decree No.:	18-2-02852-3 SEA (Effective date February 2, 2018)

Reporting Period: January – March 2020

### Summary:

City of Bothell (PLP) continues to make progress on work being performed for the Bothell Service Center site (BSCSS), in accordance with the Consent Decree (CD) with the Department of Ecology.

Per the requirements of Section XI of the Consent Decree "Progress Reports", the attached quarterly progress report has been prepared for the three-month period preceding this submittal to satisfy the terms described in the Consent Decree.

During this period the work has been geared towards continued operation of the bio-remediation system and quarterly groundwater sampling.

The attached progress report provides an update on work accomplished for the period ending March 31, 2020. Please contact me if you have any questions.

Sincerely, Nauta Mattinia Nduta Mbuthia Project Coordinator, City of Bothell

> Public Works Department 18415 101<sup>st</sup> Ave NE Bothell, WA 98011 425.806.6800 www.bothellwa.gov



City of Bothell

Reporting Period: Date submitted (electronically): Date mailed (certified w/return receipt): Prepared by: Jan - Mar 2020 April , 2020 April , 2020 Nduta Mbuthia, Project Coordinator City of Bothell, Public Works Department Phone: 425.806.6829 Email: <u>nduta.mbuthia@bothellwa.gov</u>

## <u>CONTENTS</u>

## A. <u>A list of on-site activities that have taken place during this quarter</u>

- Continued operation of the bio-remediation system
- Groundwater sampling was completed in January 2020; analytical data sent to Ecology
- Site meeting with Ecology site manager on February 14, 2020 following the accidental water main break in the project vicinity to Ecology on January 31, 2020

### B. <u>Detailed description of any deviations from required tasks not otherwise documented in project</u> plans or amendment requests:

None. Note, however, that there was an incident involving damage to a live water main in the vicinity of the Wexler excavation work. As a result of this incident, some sampling activities were undertaken in the northern portion of the BSC site, in an area designated to be future Main St right of way; these samples were along a proposed trench alignment for a new replacement water line. This was described in detail in a Technical memo dated Feb 14, 2020 following a site visit by the Ecology site manager - see attached. Received Ecology's concurrence to proceed with new water line alignment through the northern portion of the BSC site.

## C. <u>Description of all deviations from the CAP (Exhibit C) and Schedule (Exhibit D) during the</u> <u>current quarter and any planned deviations in the upcoming quarter</u>:

N/A

## D. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule:

None. The GW compliance monitoring schedule below received Ecology site manager's concurrence:-

Q1 - Winter 2019: March 5, 2019 - March 15, 2019

- Q2 Spring 2019: May 20, 2019 June 3, 2019
- Q3 Summer 2019: July 15, 2019 August 5, 2019
- Q4 Fall 2019: October 7, 2019 October 25, 2019
- Q5 Winter 2020: January 6, 2020 January 20, 2020
- Q6 Spring 2020: Week of April 6, 2020 through week of April 20, 2020
- Q7 Summer 2020: Week of July 6, 2020 through week of July 20, 2020
- Q8 Fall 2020: Week of October 5, 2020 through week of October 19, 2020

E. <u>All raw data (including laboratory analyses) received by Defendants during the past quarter and an identification of the source of the sample:</u>

GW monitoring Winter 2020 quarter sampling results table attached

F. <u>A list of deliverables for the upcoming quarter if different from the schedule:</u> Same as the updated schedule

### Attachments

- Updated Exhibit D from the CD (8-13-19)
- Memorandum February 14, 2020 Site Visit Summary (RE: Water main break)
- Pertinent email correspondence
- Groundwater sampling tables

## Exhibit D Site Schedule of Work and Deliverables

	Deliverables	Due (Calendar Days)
	A. Adm	inistrative
A.1	Consent Decree entered by the King County Superior Court (Effective Date of the CD)	Within 5 days of the execution by the Parties
A.2	Notification of selected contractor name and qualifications	Within 5 days of the effective date of Consent Decree (A.1)
A.3	Progress Reports	Quarterly on the 10 <sup>th</sup> of the month beginning after the effective date of the Consent Decree (A.1)
A.4	Financial Assurances – submit cost estimate for Ecology review and approval	Within 60 days of the effective date of Consent Decree
A.5	Financial Assurances - provide proof of financial assurances	Within 60 days after Ecology approves cost estimate (A.4)
	B. L	Design
B.1	Draft Pre-Remedial Design (PRDI) Project Plans <sup>2</sup>	Within 5 days of the effective date of Consent Decree (A.1)
B.2	Draft PRDI Data Report and Draft Engineering Design Report (EDR) <sup>3</sup>	Within 5 days of Ecology approval of Final PRDI Project Plans (B.1)
B.3	Final PRDI Data Report and EDR Report	Within 5 days of receipt of Ecology's comments on the Draft PRDI Data and EDR Reports (B.2)
B.4	90 % Plans and Specs [per WAC 173- 340-400(4)(b)]	Within 5 days of receipt of Ecology comments on Final EDR Report (B.3)
B.5	100 % Plans and Specs	Within 5 days of receipt of Ecology comments on 90 % plans and specifications (B.4)
	C. Field C	Construction
C.1	Complete Construction Procurement	Within 5 days of completion of the 100% plans and specifications (B.1)
C.2	ERH System installation	Within 2 months of the effective date of Consent Decree
	ERH Operation	Within 6 to 8 months of the effective date of Consent Decree
C.3	Start install and begin operation of bioremediation-groundwater recirculation/SVE systems	Within 2 months of the effective date of Consent Decree
C.4	Install compliance monitoring well network	Within 2 months of the effective date of Consent Decree
C.5	Complete Construction	Within 2 months of the effective date of Consent Decree
C.6	ERH soil performance sampling	Within 6 to 8 months of the effective date of Consent Decree
C.7	Contingent soil excavation in ERH treatment area	Within 6 to 9 months of the ERH system shutdown

C.8	Decommission ERH; install and operate SVE system	Within 4 to 6 weeks of ERH system final shutdown. SVE system operation beginning March 2019.
C.9	Cleanup Action Report and As-Built Drawings and Report; Draft Environmental Covenant(s); and an updated Title Report	Within 60 days of decommission of SVE systems
	D. Post Con	struction Work
D.1	Final Environmental Covenant(s)	Within 30 days of receipt of Ecology comments on the Draft Environmental Covenant(s).
D.2	Record Final Environmental Covenant(s) with King County Auditor	Within 5 days after completion of the Final Environmental Covenant or Ecology's signature as grantee of the Final Environmental Covenant(s), whichever occurs last.
D.3	Performance Groundwater Monitoring Quarterly Performance Monitoring Biannual Performance Monitoring	Quarterly performance monitoring for one year starting Summer 2019; Biannual performance monitoring until PCE, and its breakdown products reach their applicable cleanup levels in the selected performance monitoring wells provided in CAP
D.4	Decommission Bioremediation/Groundwater Recirculation system	Upon attainment of cleanup levels in performance monitoring wells
D.5	Indoor Air Sampling (two rounds)	1st round - post-construction and pre-occupation of buildings 2nd round - upon completion of Groundwater Closure report per Section 7.0 of the BSCSS Final CAP
D.6	Groundwater Confirmation Monitoring Quarterly Compliance Monitoring	Quarterly for two years following completion of performance monitoring. As described in CAP, contingency of an additional year of quarterly sampling if cleanup levels not attained. After one additional year, if COC groundwater cleanup levels have not been reached, include a 5-year compliance sampling event for the duration of the environmental covenant.
D.7	As Built Drawings and Report of vapor intrusion mitigation measures (vapor barrier and passive venting systems), and other engineering and institutional controls (if any).	Within 30 days of the City's receipt from the developer
D.8	Five Year Compliance Monitoring and Periodic Review reports	To follow Groundwater compliance monitoring (D.6). Groundwater monitoring required once every five years for the duration of the institutional controls on groundwater (if present) under the environmental covenant.

1) Schedule is in calendar days. Deliverable due date may be modified with Ecology concurrence without amendment to the Consent Decree.

2) Project Plans include the following: Work Plan, Sampling and Analysis Plan, Quality Assurance Project Plan, and Health and Safety Plan, to be submitted for Ecology review and approval. All plans will include a schedule for implementation as applicable.

 The Engineering Design Report includes: a Construction Quality Assurance Project Plan, a Compliance Monitoring and Contingency Response Plan, Proposed Best Management Practices, Water Quality Monitoring Plan, and Substantive Requirements of Procedurally Exempt Permits. Ecology will not approve the Final EDR until the required permits have been obtained.

From:	<u>John Kane</u>
То:	Cruz, Jerome (ECY)
Cc:	Nduta Mbuthia; Jeff Jensen; John Kane
Subject:	Kane Environmental - Water line alignment at Wexler
Date:	Monday, February 10, 2020 5:20:31 PM
Attachments:	Outlook-3h2stlmw.pnq
	82305 - Wexler - Water Line Installation.pdf

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link Jerome:

Please open the attached Figure 1 with this email.

The city has decided to change the alignment for the public water line. They want to extend the water line from the current location in front of the SHAG development (which is in the new Main Street roadway) directly west to 98th Ave NE, and disconnect the water service that runs east along the former HWY 522 along the road just south of the BSCSS site and turns north through the Wexler soil excavation. The water line that will be disconnected is shown with dashes. The north-south water line through the Wexler soil excavation was previously disconnected prior to starting the Wexler soil excavation activity, so that portion of the water is already gone. Please note that the water line in front of SHAG and heading west to 98th Ave NE is the new Main Street roadway, so the new water line will not be located on Lot D.

In order to connect the current water line to 98th Ave NE, a trench needs to be excavated as shown on Figure 1. We have provided green dots where we propose to collect soil samples to make sure the soil is non-detect for HVOCs, but if HVOCs are detected, the soil will be transported to a Subtitle C landfill. The city would like to get this done as soon as possible, and since its not a large volume of soil, there is no need to apply for a Contained-In letter from Ecology. Soil sampling depths will extend to a depth of approximately 7-10 feet below ground surface to allow for ground elevation changes along the trench.

In order to complete the trenching and water line installation, the city needs to have the Bioremediation trailer and piping moved temporarily. We propose to move the trailer and piping further south on the BSCSS site, but still within the secured fencing. The automatic bioremediation system will need to be shut down for about a month. However, we propose to continue the Carbstrate injection during the month by applying Carbstrate manually into each injection well. We will check with the remediation contractor, but our plan is for a weekly dose to continue the Carbstrate volume currently injected by the automatic injection system. The city would like to disconnect the Bioremediation system sometime this week (week of 2/10/20).

Let's discuss this scope of work at your convenience.

From:	John Kane
То:	Cruz, Jerome (ECY)
Cc:	Nduta Mbuthia; Jeff Jensen; John Kane
Subject:	Response to Comments 2-11-2020 Kane Environmental - Water line alignment at Wexler
Date:	Tuesday, February 11, 2020 4:20:48 PM
Attachments:	image004.png
	<u>Outlook-Iserggow.png</u>
	Wexler HASP .pdf

THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link lerome:

Responses to your questions from this morning.

• What will happen to the groundwater recirculation system?

During the trenching and installation of the water line, the groundwater recirculation system will need to be deactivated for about 1 month as the power supply will be temporarily removed. The injection and extraction lines will need to be disconnected from the remediation trailer and temporarily moved to the south of the proposed trench. The extraction and injection which is run through the remediation trailer will temporarily cease to operate. During this time we propose to continue the Carbstrate injection by applying Carbstrate manually into each injection well. However, groundwater extraction will not occur during this temporary shutdown.

• Will the trenching and water line intersect the water table at any time of the year? What H&S measures will be taken with regard to working in areas of contamination from soil and/or groundwater?

The eastern portion of the trenching (on the eastern end of the BSCSS former building concrete slab) will most likely intersect groundwater. Trenching will most likely extend to approximately 11 feet below ground surface (bgs) and in January of 2020, groundwater on this portion of the concrete slab was measured at approximately 8.22 feet bgs. The western majority of the trenching/water line will be above groundwater. We do not anticipate encountering any contaminated soil during trenching activities. Some of the soils encountered will most likely contain detectable concentrations of PCE and breakdown below their respective CULs. Soils that contain detectable concentrations of PCE and breakdown will be disposed of offsite to a regulated disposal facility. As for H&S, the excavation will be conducted by the contractor Wyser - the H&S plan that was submitted for this project is attached. Once the desired depth has been achieved, clean backfill will be placed in the trench for bedding of the pipe. Once the pipe has been installed, the trench will be backfilled with clean imported backfill. Therefore, exposure to any impacted soil should be minimal.

• Will the soil samples be bottom or sidewall? What did the RI show about contamination in the area of the proposed water line?

The proposed soil sampling locations noted in Figure 1 were actually soil boring locations to be advanced prior to trenching activities. The goal of this is to characterize the soil before the trenching begins to minimize work delay. 2 to 3 soil samples will be collected from each boring. During RI activities, PCE was detected in soils at concentrations below the MTCA Method A CUL in the eastern portion of the BSCSS concrete slab. Not a lot of soil sampling was conducted in the asphalt north of the concrete slab (in the northwestern portion of the BSCSS property) due to the delineation of contamination extent being essentially within the western portion of the BSCSS concrete slab. It should also be noted that the SVE system operated along the eastern and northeastern footprint of the BSCSS concrete slab so it is possible that PCE has been effectively removed in these soils.

- Should petroleum, BTEX, and metals such as arsenic be included in the soil analyses? Considering PCE and breakdown products were the Site specific COCs for this area of the BSCSS Site, we do not think it is necessary to analyze for those additional constituents.
- Will the water line be in contact with contaminated groundwater from the site? How will it be protected?

The eastern portion of the water line may be in contact with the groundwater. The line itself will be ductile iron and the line is wrapped in sheeting so permeation should not be an issue. The trench will also be dewatered during pipe laying and backfilling - the effluent will be collected in Baker tanks and treated before being discharged to the sanitary sewer under a King County permit.

- Will the trench/water line become a preferential pathway for groundwater contamination? This is a possibility. To address this, we propose that at least two check dams (Control Density Fill (CDF) 4ft x 4ft) are installed along the line (one in the western portion and one in the eastern portion) to inhibit contaminant migration.
- Is this going to be a future trend where construction work during the cleanup will need Ecology notice and involvement or approval? Just want to be prepared. Maybe we need to memorialize or come up with a system to handle situations such as these. In this case, the proposed water line work is an emergency measure that has happened as a result of the water pipe break that occurred on 1/31/2020. Originally there was no plan to install a water line through the BSCSS site. However, since the 1/31 incident resulted in damage to approximately 600LF of water line (that we were not originally going to touch), the most reasonable resolution now is to install about 250LF along this new alignment. We felt that since the proposed work will temporarily disrupt the active cleanup efforts at the BSCSS Site by deactivating the groundwater recirculation system and supplementing with manual injections, your concurrence was required. In the future, when there are planned construction activities such as building construction during site development (e.g. once Lot D is sold), Ecology will be involved early on in the process, such as when the developer agreements are being crafted. Additionally, a large portion of the proposed work will be conducted within the BSCSS Site boundary and in areas where low level concentrations of PCE had previously been detected in soil so we wanted to be sure you were aware.

John

John Kane, CEO/President **Kane Environmental, Inc. | Environmental Issues. Business Solutions.** 4015 13<sup>th</sup> Ave W., Seattle, WA 98119 D 206-691-0476 C 206-715-2779 Toll Free 1-844-529-KANE <u>jkane@kane-environmental.com</u> <u>www.kane-environmental.com</u> Seattle, WA | Tacoma, WA | Phoenix, AZ | Nationwide Services



From: Cruz, Jerome (ECY) <JCRU461@ECY.WA.GOV>

Sent: Tuesday, February 11, 2020 9:02 AM

**To:** John Kane <jkane@kane-environmental.com>

**Cc:** Nduta Mbuthia <Nduta.Mbuthia@bothellwa.gov>; Jeff Jensen <Jeff@kane-environmental.com> **Subject:** RE: Kane Environmental - Water line alignment at Wexler

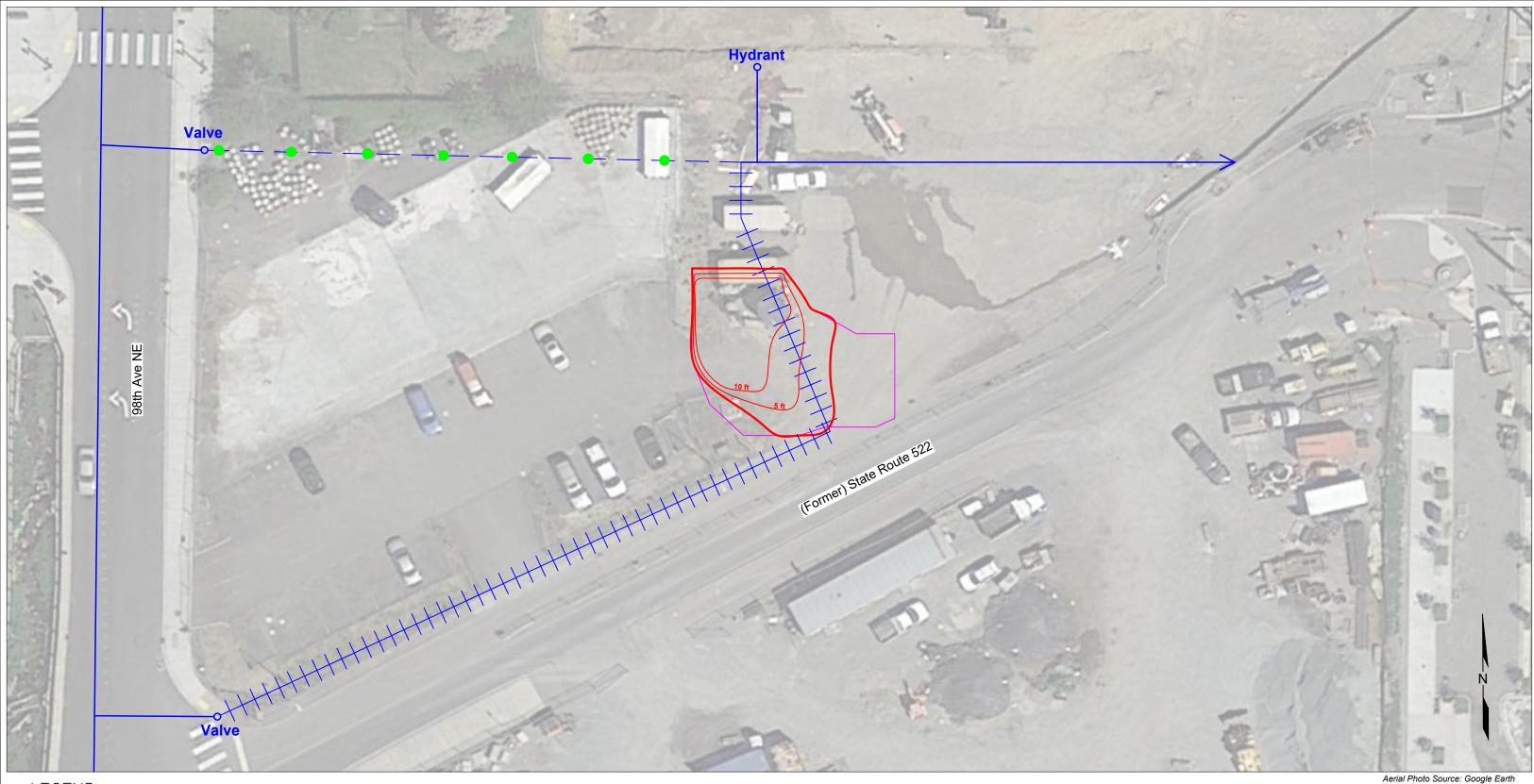
John,

Yes, let's discuss. Some questions in the meantime:

- What will happen to the groundwater recirculation system?
- Will the trenching and water line intersect the water table at any time of the year? What H&S measures will be taken with regard to working in areas of contamination from soil and/or groundwater?
- Will the soil samples be bottom or sidewall? What did the RI show about contamination in the area of the proposed water line?
- Should petroleum, BTEX, and metals such as arsenic be included in the soil analyses?
- Will the water line be in contact with contaminated groundwater from the site? How will it be protected?
- Will the trench/water line become a preferential pathway for groundwater contamination?
- Is this going to be a future trend where construction work during the cleanup will need Ecology notice and involvement or approval? Just want to be prepared. Maybe we need to memorialize or come up with a system to handle situations such as these.

Thanks,

Jerome



## <u>LEGEND</u>

Approximate location of excavation extent as of 1/31/2020

Approximate location of existing water line to remain in service

Approximate location of proposed soil boring

Approximate location of proposed excavation extent

Approximate location of permanently removed/decommissioned water line, not to be replaced

- - - Approximate location of proposed water line installation



Wexler Remedial Excavation Bothell, Washington 98011

Aerial Photo Source: Google Earth Aerial Photo Date: May 22, 2017

Approximate Scale in Feet

Figure 1 Proposed Water Line Installation



### MEMORANDUM

To:	Mr. Jerome Cruz Washington State Department of Ecology
CC:	Ms. Nduta Mbuthia City of Bothell
From:	John Kane Kane Environmental, Inc.
Date:	February 14, 2020
Re:	Site Visit Summary February 14, 2020

Thank you for meeting with Jeff Jensen and me this morning (Friday February 14, 2020) at the Bothell Service Center Simon & Sons (BSCSS) site in Bothell. This memorandum provides a summary of our discussions from this morning. Please note that this soil trenching location is the future location of the new Main Street East-West roadway extension, and the activity is consistent with the City of Bothell policy of installing public utilities within City right-of-ways.

Due to the fire hydrant water line release during the Wexler soil excavation activity on Friday January 31, 2020, approximately 600 linear feet of water line was damaged. As an emergency measure, the City of Bothell proposed the installation of approximately 250 linear feet of water line to extend east from the water main located in 98<sup>th</sup> Avenue NE, near the northwest corner of the BSCSS Site, through the northern portion of the BSCSS Site to connect to the existing main located to the south of the SHAG building. This location also represents the future location of the new Main Street. The Bothell Fire department has requested that the water line installation be completed as soon as possible, expressing concerns related to the reduced fire flow capacity (currently at 85%) due to the loss of the 600 linear feet. In order to install the new water line, a trench will be advanced across the northern portion of the BSCSS Site to depths ranging between 4 to 10 feet below ground surface (bgs). One of the factors inhibiting the swift execution of the trenching and subsequent installation is the current location of the BSCSS bioremediation /groundwater recirculation system. A temporary power unit, which supplies power to the bioremediation /groundwater recirculation system is located in the northwest corner of the BSC property, directly within the path of the proposed water line. Additionally, injection and extraction conveyance lines, as well as electrical conduit supplying the extraction pumps, are located along the eastern portion of the BSC property, also directly within the path of the proposed water line.

Kane Environmental evaluated different alternatives for the automatic bioremediation /groundwater recirculation (Bio/GR) system at BSCSS during the trench excavation along the new Main Street. The trench will be located just south of the Bio/GR trailer, so the trailer does not need to be moved. However, bioremediation product lines and electrical power to the well pumps in the extraction wells need to be disconnected during the trench activity. Kane Environmental evaluated three alternatives to address the Bio/GR trailer:

The first alternative was to provide power to the trailer using a large generator that would keep the well extraction pumps and injection pumps inside the trailer powered on. This would include having to move the trailer to the south of the trench excavation, along with all the hose and the three 500-gallon water tanks currently located next to the trailer. Furthermore, noise from the external gasoline generator is of concern since the SHAG building is now fully functioning with tenants, and a 24/7 generator would cause significant noise. Additionally, an aboveground gasoline fuel tank would be required for the generator, which we considered both a safety concern and some time needed to get it permitted as an active gasoline AST.

The second alternative is to move the power from the northwest corner further to the east along the northern boundary of the BSCSS property. The time needed to get the new power location approved by Puget Sound Energy and then retain the electrical contractor to move and install the new system would take too much time to address the current immediate need to connect the fire water line system.

The third alternative is to disconnect the Bio/GR system and add the bioremediation product to the injection wells manually for the duration of the water line installation. Kane Environmental will also collect groundwater samples from 4 wells (Figure 1 provided with this email) to monitor the HVOC concentration in these wells to confirm that the contaminant plume is not expanding during the shutdown time period. Please note that it is possible that the shutdown may be two to three weeks, and not an entire month. We are using a month for the estimate in case there are any unexpected delays in the trenching and water line installation activity.

Per our discussion, we are moving forward with the third alternative.

### **Wexler Excavation Status**

We also discussed the possibility that the extent of the petroleum-contaminated soil could have some preferential distribution to the east and/or west of the currently characterized soil contamination on the Wexler Settlement Area. If east/west preferential distribution is observed along the former Hwy 522 roadway, Kane Environmental will contact you immediately. It is our understanding that this may alter the

location(s) for some of the compliance monitoring wells for the Wexler Settlement Area, but that will be determined at a later date after the soil excavation has been completed.

### **BSCSS Gio/GR Status**

Kane Environmental informed you that groundwater PCE concentrations in some of the previously elevated PCE groundwater wells have significantly decreased in PCE in the latest Winter 2020 sampling round. We will provide you with an updated PCE isopleth map and groundwater data tables after we receive all the final groundwater data from the laboratory for the Winter 2020 sampling round.

From:	Cruz, Jerome (ECY)
То:	<u>John Kane; Nduta Mbuthia</u>
Subject:	[EXTERNAL] RE: Memo - Summary of FEb 14 Site Visit at Bothell, Main St water line
Date:	Thursday, February 20, 2020 9:13:31 AM
Attachments:	image005.png
	Response to Comments 2-11-2020 Kane Environmental - Water line alignment at Wexler.msg
	Kane Environmental - Water line alignment at Wexler.msg

**Stop! Look! Think before you click!** This message originated from outside the City of Bothell network. Use caution when clicking links or opening attachments.

### Hi John and Nduta,

Ecology concurs with the City's request for water line alignment at the Wexler excavation/Bothell Service Center Simon & Son site. Please ensure the tasks in your February 14, 2020 memorandum and your emails dated February 10, 2020 and February 11, 2020 (attached) are followed. Jerome



Jerome B. Cruz, Ph.D. Toxics Cleanup Program, Northwest Regional Office 3190 - 160th SE Bellevue, WA 98008 Tel: (425) 649-7094 Fax: (425) 649-7098 Jerome.Cruz@ecy.wa.gov http://www.ecy.wa.gov/programs/tcp/cleanup.html

From: Cruz, Jerome (ECY)
Sent: Tuesday, February 18, 2020 8:27 AM
To: 'John Kane' <jkane@kane-environmental.com>
Cc: Nduta Mbuthia <Nduta.Mbuthia@bothellwa.gov>
Subject: RE: Memo - Summary of FEb 14 Site Visit at Bothell, Main St water line

### Hi John,

Thanks for the memo. I am seeking final confirmation internally before I give a more official response.

I wanted to follow up with my request for a more accurate map of the Paint and Decorating confirmation wells juxtaposed with the parcel boundaries and ICAs.

Thanks,

Jerome



Jerome B. Cruz, Ph.D. Toxics Cleanup Program, Northwest Regional Office From: John Kane [mailto:jkane@kane-environmental.com]
Sent: Monday, February 17, 2020 4:24 PM
To: Cruz, Jerome (ECY) <<u>JCRU461@ECY.WA.GOV</u>>
Cc: Nduta Mbuthia <<u>Nduta.Mbuthia@bothellwa.gov</u>>; John Kane <<u>jkane@kane-environmental.com</u>>
Subject: Memo - Summary of FEb 14 Site Visit at Bothell, Main St water line

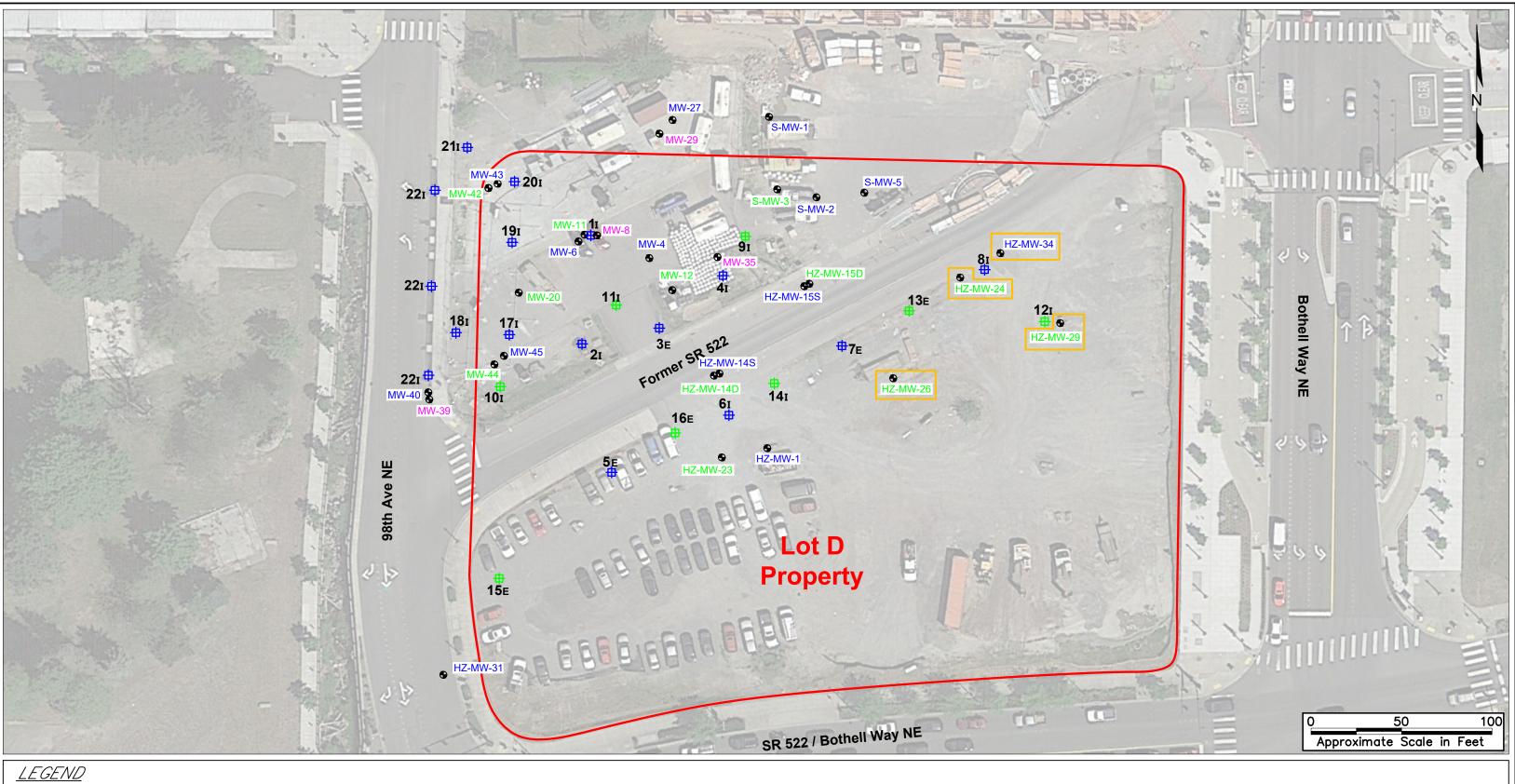
THIS EMAIL ORIGINATED FROM OUTSIDE THE WASHINGTON STATE EMAIL SYSTEM - Take caution not to open attachments or links unless you know the sender AND were expecting the attachment or the link Jerome:

Memorandum attached regarding our site visit on Friday February 14, 2020 for the Main St. water line installation.

John

John Kane, CEO/President **Kane Environmental, Inc. | Environmental Issues. Business Solutions.** 4015 13<sup>th</sup> Ave W., Seattle, WA 98119 D 206-691-0476 C 206-715-2779 Toll Free 1-844-529-KANE jkane@kane-environmental.com www.kane-environmental.com Seattle, WA | Tacoma, WA | Phoenix, AZ | Nationwide Services





• Location of shallow monitoring well (screened 5-25 ft bgs)

Ò • Location of intermediate monitoring well (screened 25-35 ft bgs) Location of deep monitoring well (screened 35-55 ft bgs)

Approximate location of shallow injection/extraction well (screened 5-25 ft bgs)

0

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Approximate location of intermediate/deep injection/extraction well (screened 25-55 ft bgs)

- Е Extraction well
- Injection well Ι



**Bothell Service Center Simon & Son** Compliance Groundwater Monitoring Wells & Bioremediation Injection/Extraction Wells

Well location to monitor while GW recirculation system deactivated

Figure 1 Site Plan

	Well Type and Water Bearing	Screened	Top of Casing (TOC) Elevation	Date	Depth to Water (ft below	GW Elevation	Sampled	PCE	TCE	(cis) 1,2-DCE	Vinyl Chloride	pН	Temp Cor	nductivity	Dissolved Oxygen	Oxidation Reduction Potential	Dissolved	Sulfate	Chloride	Ammonia as N	Methane	Ethane	Ethene	Total Organic Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-1	Shallow	5 to 20	46.952	3/16/01			ERM	113	38.3	28.1	<1.0													'
	Decomissioned			7/13/01 10/26/01			ERM ERM	23.7 8.71	10.3 2.84	4.82 1.29	<1.0 <1.0													'
				12/2/02			ERM	239	380	1,200	<1.0													-
				10/1/02			Farallon	6.8	6.4	17	-	6.5		196.0	1.14	13.8								
				4/27/05			Farallon	2,600	80	53		6.7		201.0	3.02	97.6								
				8/15/05			Farallon	12,000	<50	<50		5.0		004.0	0.0	400								'
				8/14/06 5/14/07			Farallon Farallon	18,000 12,000	<200 <50	<200 63		5.9 6.1		284.0 249.0	0.9 2.27	499 448								'
				11/27/07			Farallon	11,000	<100	<100		6.6		233.0	4.87	135								
				8/26/08			Farallon	23,000	<200	<200		6.3		189.0	1.87	175		22			13.1	<1.2	<1.1	3.25
				1/9/09			Farallon	450	10	6.6		6.3		88.0	10.5	120		8.8			<0.5	<0.5	<0.5	2.95
				6/11/09			Farallon	17,000	<100	<100		6.1		242.0	2.32	80.1		18			8.6	< 0.5	< 0.5	2.2
				9/14/09 5/27/10			Farallon Farallon	31,000 23,000	<200 <100	<200 <100	<100	6.3 6.4		328.0 200.0	0.74 2.26	158 58.4		21			28	<2.5	<2.5	3.7
				9/9/10			Farallon	23,000	<200	<200	<200	6.8		249.0	0.38	0.3		20			14	<1.0	<1.0	2.6
				6/10/11			Farallon	1,900	42	52	<10	6		141.0	5.6	39.3		13			1.1	< 0.5	< 0.5	4.3
				3/21/13			DOF	8,000	56	81	<0.2	6.7		203.0	5.5	68.4					4.5	<1.2	<1.1	11.8
				4/4/14	ł	.	DOF	270	16	49	<0.02	7.1		117.0	5.5	-14					< 0.7	<1.2	<1.1	8.28
				10/10/14	10.07	36.92	DOF HWA	28,000 14,000	160 92	140 87	<2.0 U <50	6.3 6.06		348.0 341.0	0.3 3.89	18.6 80.4		19			36.8 0.76	<1.2 U <0.50	<1.1 U <0.50	3.15 2.9
				9/21/16	9.14	37.81	Kane	6,700	170	610	<00 160	6.29		325.0	3.09	00.4		19			0.70	<0.50	<0.50	2.9
				10/25/16		39.23	Kane	160	6.6	16	<2.0	6.33		202.0										
MW-2	Shallow	5 to 20	48.897	3/16/01			ERM	13,800	834	106 ES	<1.0													
	Decomissioned			7/13/01			ERM	419	16.4	<1.0	<1.0													'
				10/26/01 2/12/02			ERM ERM	532 81.5	<20.0 <b>8.08</b>	<20.0 <1.0	<20.0 <1.0													'
				10/1/02			Farallon	18	0.65	<0.2	<1.0	6.4		319.0	0.89	-30								
				4/27/05			Farallon	2,600	44	<10		5.8		319.0	0.42	149.2								+
				8/15/05			Farallon	29,000	<200	<200														
				8/14/06			Farallon	32,000	300	240		5.8		317.0	0.97	478.5								
				5/14/07 11/27/07			Farallon	6,100	<b>40</b> <200	<b>38</b>		6 6.5		264.0 300.0	0.7 1.18	479.8								'
				8/26/08			Farallon Farallon	38,000 500	<200 200	<200 <b>2,300</b>		6.3 6.4		286.0	2.26	117.8 -69.2		5.3			1330	<1.2	<1.1	25.9
				1/8/09			Farallon	270	550	290		6.5		296.0	0.56	24.7		7.3			500	<50	<50	6.36
				6/11/09			Farallon	1,100	1,400	1,700		6.3		294.0	0.73	60.9		8.5			4400	<500	<500	6.4
				9/14/09			Farallon	1,700	2,200	7,800		6.3		323.0	0.68	147.5		12			3800	<500	<500	13
				5/27/10			Farallon	240	<60	12,000	<b>70</b> <200	6.1		512.0	0.31	-15.9 -49.3		-5			9700	<500	-500	39
				9/9/10 6/10/11			Farallon Farallon	<200 150	<200 1,100	6,400 11,000		6.5 6.2		420.0 809.0	0.21 0.34	-49.3		<5 <10			9700 5200	<380	<500 680	39 71
				3/20/13			DOF	540	690	14,000		7.4		561.0	0.31	-111		10			15900	<1.2	1240	27
				4/7/14			DOF	390	630	5,300	850	7.2		320.0	0.3	-352					14500	<1.2	388	8.26
				10/10/14	40.4-	00	DOF	320	93		1,900	6.2		382.0	0.2	-117					9760	<1.2 U	349	7.49
				11/11/15		38.74	HWA	2,400	4,100	15,000 × 1		5.78		463.0	0.00	-85.9		39			5900	<380	580	11
				9/23/16 11/1/16		39.01 40.59	Kane Kane	8 8.3	6.6 6.1	8.1 10	<u>6.6</u> 11	6.59 6.31		241.0 244.0										+
MW-3	Shallow	5 to 20	47.957	3/16/01	5.01	.0.00	ERM	<1.0	<1.0	<1.0	<1.0	0.01												<u> </u>
				10/26/01			ERM	<1.0	<1.0	<1.0	<1.0													
				2/12/02	ļ		ERM	<1.0	<1.0	<1.0	<1.0													┦─────
				10/1/02 4/27/05	ł		Farallon	<b>0.37</b>	< 0.2	<0.2		5.9		284.0	1.12	30.8								'
				4/27/05 8/14/06	ł		Farallon Farallon	<0.2 <0.2	<0.2 <0.2	<0.2 <0.2		5.5 5.8		275.0 307.0	0.96 1.95	132 456								+
				5/14/07	ł		Farallon	<1.0	<0.2	<0.2		5.7		264.0	1.95	408								+
				11/27/07	İ		Farallon	<1.0	<0.2	<0.2		6.2		330.0	0.76	78								2.47
				8/25/08			Farallon	<0.2	<0.2	<0.2		5.9		172.0	2.88	374		18			<1	<1.2	<1.1	2.58
				4/7/14	ł		DOF	< 0.2	< 0.2	< 0.2	< 0.02	6.4		192.0	0.7	-71					2960	<1.2	<1.1	4.17
				10/10/14		20.70	DOF Kane	0.39	<0.2 U <0.20	<0.2 U <0.20	<0.02 U <0.20	5.7 6.10		339.0 243.0	0.3	-0.9					1570	<1.2 U	<1.1 U	9.82
			9	9/23/16	8 26																			
				9/23/16 11/1/16		39.70 41.09	Kane	< 0.20	<0.20	<0.20	<0.20			305.0										

					Depth to											Oxidation								Total
	Well Type and		Top of Casing		Water (ft			DOF	TOF	(cis)	Vinyl		-		Dissolved	Reduction	<b>D</b> : 1 1	0 15 1		Ammonia				Organic
Well	Water Bearing Zone	Screened Depth, (ft bgs)	(TOC) Elevation (feet)*	Date Sampled	below TOC)	Elevation	Sampled	PCE	TCE	1,2-DCE	Chloride	pH (units)		Conductivity	Oxygen	Potential	Dissolved			as N	Methane	Ethane	Ethene	Carbon
weii	Zone	Deptil, (it bgs)	(leet)		,	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	、 ,	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
				9/11/18	8.69	39.27	Kane	<1.00	< 0.50	<1.00	< 0.20	6.20	18.9	118.0	6.23	116.9	<100	19	2.94	<0.100	< 0.00863	< 0.0162	<0.0151	2.37
				12/5/18 2/12/19	7.93 7.79	40.03 40.167	Kane Kane	<1.00 <1.0	<0.50 <0.50	<1.00 <1.0	<0.20 <0.20	5.90 6.03	15.3 12	62.5 57.5	38.7 8.2	6.94 141.5	<100 <100	3.18 4.16	2.79 3	<0.100 <0.10	<0.00863 <0.00863	<0.0162 <0.0162	<0.0151 <0.0151	2.7 2.36
				6/4/19	7.96	39.997	Kane	0.72	<0.30	<0.20	<0.20	6.35	15.5	62.1	9.97	3.6	<56	<5.0	3.4	<0.05	< 0.00003	<0.0005	<0.0005	2.30
MW-4	Shallow	10 to 25	45.717	7/13/01		++	ERM	9,390	58.8 ES		<1.0			-										
				10/26/01			ERM	8,960	74.7 ES		<1.0													
				2/12/02	-	!	ERM	11,000	93.4 ES		<1.0				0.00	404							<u> </u>	<u> </u>
				10/1/02 4/28/05	-		Farallon Farallon	21,000 6,700	230 160	400 110		6.6 6.6		282.0 305.0	0.98	101 97.4							<u> </u>	
				8/15/06			Farallon	8,500	210	250		5.7		311.0	0.83	504							<u> </u>	
				5/14/07		†	Farallon	8,600	370	160		6.1		319.0	0.64	449								
				11/27/07		†	Farallon	5,400	220	120		6.8		299.0	1.09	114								
				8/26/08	-	ļ	Farallon	11,000	790	270		6.2		248.0	2.91	159		26			5.5	<1.2	<1.1	1.59
				1/9/09	-		Farallon	5,200	250	180		6.7		289.0	0.57	25.6		24			51	<5	<5	2.47
				6/11/09 9/14/09	-		Farallon Farallon	1,600 10,000	2,000 890	240 510		6.3 6.1		285.0 290.0	0.63 0.59	61.7 167		15 17			310 5400	<25 <500	<25 <500	2.1
				5/27/10	1		Farallon	5,800	310	1,200	<50	6.7		255.0	0.39	-32.1		17			5400	-500	-000	1.0
				9/10/10		†	Farallon	4,700	310	620	<20	7		239.0	0.33	-10.2		19			4200	<500	<500	1.4
				6/10/11	'	†	Farallon	3,300	160	970	<20	6.8		287.0	0.34	-30.3		19			4100	<500	<500	1.7
				3/21/13	-		DOF	1,400	140	530	0.85	6.8		337.0	1.1	45.6					16400	<1.2	<1.1	5.68
				4/4/14	ł		DOF	1,500	160	1,900	<b>5.6</b>	6.8		290.0	0.5	-53					15200	<1.2	<1.1	1.63
				10/10/14		36.46	DOF HWA	2,000 960	140 120	240 1,100	<1.0 U <10	6 6.12		306.0 342.0	0.1	4.8 -54.4		15			14400 3300	<1.2 U <250	<1.1 U <16	1.75 1.4
				9/22/16	8.51	37.21	Kane	380	71	1,300	<10	6.28		433.0	0.00	-0-1		10			0000	-200		1.7
				10/31/16		38.81	Kane	3,800	900	7,400	<50	6.52	16.2	364.0										
				9/17/18	8.89	36.83	Kane	4,060	360	1,740	11.9	6.59	16.7	312.0	0.09	16.8	977	16.3	15.4	<0.100	3.79	<0.0162	<0.0151	3.94
				11/30/18		38.05	Kane	4,370	373	1,720	<10	6.35	16.2	347.4	0.12	50	604	18.8	16	<0.100	0.721	< 0.162	<0.151	3.1
				2/22/19 5/23/19	7.23 7.59	38.49 38.13	Kane Kane	4,080 5,500	343 370	1790 1,100	9.72 <30	6.49 6.57	13.9 19.5	311.5 353.5	0.22	19.9 27.4	<100 2100	16.2 17	16.5 16	<0.10 <0.050	4.12 9.5	<0.0162 <0.50	<0.0151 <0.50	1.94 2.9
				7/16/19	8.13	37.59	Kane	3,700	590	1,400	9.1	6.26	20	354.3	0.12	-69	6,300	15	15	< 0.050	5.2	<0.0005	< 0.0005	2.3
				10/18/19		37.68	Kane	1,900	390	940	7.5	6.14	20.3	321.2	0.04	15.4	5,400	12	15	< 0.050	11	< 0.0005	< 0.0005	3.7
				1/27/20	7.15	38.57	Kane	1,600	250	760	6.7	6.49	18.2	316.4	0.04	23.6	3,300	11	14	<0.050	8.0	<0.00022	<0.00029	2.1
MW-5	Shallow	10 to 25	44.297	7/13/01	-		ERM	2,650	14.5	31.1	<1.0											-	<b>_</b>	
				10/26/01	- -		ERM ERM	1,670	<100	<100	<100												<u> </u>	
				2/12/02 10/1/02	1		Farallon	1,310 3,900	18.2 72	38.5 170	<1.0	6.2		185.0	0.84	70.6								
				4/28/05		+	Farallon	2,200	56	76		5.6		262.0	1.25	150								
				8/15/05		†	Farallon	640	12	20														
				8/14/06		ļ	Farallon	10,000	240	270		5.7		259.0	0.91									<u> </u>
				5/14/07			Farallon	650	16	23		5.7		290.0	1.63	448							<b> </b>	<b></b>
				11/27/07 8/26/08			Farallon Farallon	1,300 21,000	25 660	31 630		6 6		262.0 203.0	7.09 3.29	128 273		32			5.7	<1.2	<1.1	1.95
				5/27/10			Farallon	6,600	400	240	<50	6		198.0	0.55	109		52			5.1	<u> </u>	<u> </u>	1.90
				3/21/13		+	DOF	3,100	220	180	<0.2	6.4		304.0	0.4	69.8					5940	<1.2	<1.1	3.94
				4/4/14			DOF	1,300	79	65	0.03	6.7		257.0	0.1	-35					2570	<1.2	<1.1	1.59
				10/10/14			DOF	7,600	220	140	<10 U	5.8		163.0	0.1	13.7					3260	<1.2 U	<1.1 U	1.78
				11/11/15		35.30	HWA	2,200	93	76	<20	5.87		170.0	1.87	29.6		20			3200	<250	<21	<1.0
				9/21/16 10/24/16		36.19 37.92	Kane Kane	910 590	39 26	35 29	<10 <4.0	5.96 6.22	16.1	170.0 291.0									<u> </u>	
				9/14/18		36.03	Kane	2,220	33.9	24	<0.20	5.88	16.4	193.0	0.37	166	<100	17.7	14.6	<0.100	0.303	<0.0162	<0.0151	3.1
				12/3/18	6.29	38.01	Kane	58.5	13.6	1.13	<0.20	6.05	15.1	325.0	0.08	19.5	1,810	15.7	7.48	<0.100	< 0.00863	< 0.0162		3.79
			'	6/10/19		37.37	Kane	140	81	280	4.1	6.53	16.4	548.0	0.22	-6.2	20,000	6.6	12.0	1.8	1.6	<0.250	<0.250	
MW-6	Shallow	10 to 25	47.142	7/13/01	]		ERM	30,000	618	231 ES	<1.0													<u> </u>
				10/26/01			ERM	13,500	<400	<400	<400												<b> </b>	—
			'	2/12/02 10/1/02	+		ERM Farallon	21,800 27,000	1,110 ES 1,100	406 ES 470	<1.0	6.6		201.0	0.92	95.2							<u> </u>	+
				4/27/05	1	+	Farallon	15,000	1,100	460		6.2		235.0	3.14	119							<u> </u>	+
			1	8/15/05	1	ł	Farallon	30,000	1,500	930														
				0/15/05																				
				8/14/06 5/14/07		Ì	Farallon	24,000 17,000	1,100	1,500 1,300		5.8 6		335.0 296.0	1.06 2.18	483 471								

					Depth to											Oxidation								Total
	Well Type and		Top of Casing		Water (ft	GW				(cis)	Vinyl				Dissolved	Reduction				Ammonia				Organic
\A/=!!	Water Bearing	Screened	(TOC) Elevation		below	Elevation	Sampled	PCE	TCE		Chloride	pH (unite)		Conductivity	Oxygen	Potential	Dissolved			as N	Methane	Ethane	Ethene	Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
				11/27/07 8/26/08			Farallon	22,000	940	1,300		6.6 6.1		285.0 256.0	2.75 2.34	149 273		22			0.0	<1.2	-1 1	2.10
				1/9/09			Farallon Farallon	25,000 12,000	1,200 610	1,200 440		6.5		190.0	4.94	115		23 15			8.2 2.9	<1.2 <0.5	<1.1 <0.5	3.12 2.54
				6/11/09			Farallon	20,000	780	710		6		270.0	1.96	98		20			8	< 0.5	< 0.5	2.1
				9/14/09			Farallon	23,000	1,200	870		6.3		315.0	0.74	158		23			8.8	<0.5	<0.5	3.1
				2/25/10	-		Farallon	17,000	730	450	<100	6.4		176.0	2.49	170								
				5/27/10 9/10/10			Farallon Farallon	13,000 860	480 430	320 8,300	<60 <50	6.6 6.6		250.0 492.0	0.3 0.34	38.1 -67.2		<5			64	<6.0	<6.0	19
				6/10/11			Farallon	460	72	2,100	<20	6.5		561.0	0.34	-07.2		<5			490	<50	<50	33
				3/20/13			DOF	500	140	9,600	56 ES	7.3		444.0	0	-144					5790	<1.2	2	12.3
				4/4/14			DOF	950	220	240	19	6.8		243.0	0.4	-142					1620	<1.2	<1.1	1.93
				10/10/14			DOF	73	28	6,600	2,700	6.6		623.0	0.3	-139					6220	<1.2 U	1200	12.9
				11/11/15 9/23/16	10.23 9.31	36.98 37.83	HWA Kane	26 240	<20 69	3,800 10,000	2,900 2,400	6.37 6.81		749.0 559.0	0.00	-110.1		<10			3400	<250	850	11
				10/27/16	7.87	39.27	Kane	<50	<50	9,500	1,900	6.60	17.5	410.0										
				7/17/18	8.92	38.22	Kane	27.4	14.3	4,480	851	6.91	20.3	365.0	0.00									
				9/18/18	9.51	37.63	Kane	738	238	2,620	472	6.39	34.8	383.0	0.07	-42.6	6,340	20.1	14.2	0.162	0.666	<0.062	0.0596	9.01
				12/21/18	8.79	38.35	Kane	2,670	1,000	2,560	25.5	5.96	49.4	378.0	0.23	-65.4	5,260	8.68	11.2	0.413	0.0808	< 0.162	< 0.151	14.3
				2/22/19 5/22/19	7.79 8.46	39.35 38.68	Kane Kane	1,820	568	1040 750	<b>14</b> <20	6.16 6.14	42.6 43.7	295.1 407.0	0.15	-52 -70.8	5,800 8,800	13 <5.0	7.69 14	<0.10 0.16	0.706	<0.0162 0.0012	<0.0151 <0.0005	13.2 20
				7/25/19	9.06	38.08	Kane	3,800 3,600	1,800 1,100	490	<20 <b>7.4</b>	6.14	43.7	407.0	0.04	-108.1	9,200	<5.0	14	0.18	1 0.73	< 0.0012	0.019	20
				10/21/19	8.76	38.38	Kane	74	38	1,200	3.2	6.08	31.3	562.0	0.04	-74.6	13,000	<5.0	16	0.12	2.3	< 0.0005	0.00094	19
				1/22/20	7.77	39.37	Kane	10	5	170	74	6.62	20.9	364.9		-77.8	12,000	<5.0	10	0.11	4.3	< 0.00022	<0.00029	8.4
MW-7	Shallow	10 to 25	45.527	7/13/01			ERM	10,100	35	30	<1.0									-				'
				10/26/01 2/12/02			ERM ERM	4,880	15	13.8	<1.0 <1.0													
				10/1/02	-		Farallon	3,800 9,600	<b>10.5</b> <100	<b>9.28</b> <100	<1.0	6.7		214.0	0.71	-22.6								
				4/28/05			Farallon	1,100	<10	<10		6.2		315.0	0.84	126								
				8/15/05			Farallon	4,900	27	<20														
				8/14/06			Farallon	4,000	<40	<40		6.1		303.0	0.82	386								
				5/14/07			Farailon Farallon	320 1,200	<b>2.7</b> <10	<2.0 <10		6.2 6.9		352.0 336.0	0.54 0.38	437 76.6								
				8/26/08			Farallon	4,300	<10 43	<b>43</b>		6.5		240.0	2.74	116		25			42.6	<1.2	<1.1	2.1
				1/8/09			Farallon	760	7.8	4.8		6.7		330.0	0.7	84.3		27			110	<5.0	<5.0	3.6
				6/11/09			Farallon	2,100	34	33		6.5		340.0	0.62	62.3		25			140	<10.0	<10.0	2.3
				9/14/09			Farallon	6,300	120	79	10	6.3		318.0	0.72	170		24			23	<2.5	<2.5	1.9
				5/27/10 9/9/10			Farallon Farallon	830 5,400	18 110	14 55	<10 <50	6.6 6.8		289.0 295.0	0.63	-22.6 -21.4		24			190	<25.0	<25.0	1.7
				6/10/11			Farallon	5,400 810	24	16	<4.0	6.7		346.0	0.51	-43.5		16			240	<10.0	<10.0	2.4
				3/21/13			DOF	3,300	140	240	0.28	7		385.0	0.21	-3.6					741	<1.2	<1.1	6.29
				4/4/14			DOF	2,100	130	750	2.3	7.1		329.0	0.6	-47					989	<1.2	<1.1	2.57
				10/11/14	40.40	05.45	DOF	6,200	380	3,400	10	6.3		391.0	0.1	-27		10			6580	<1.2 U	<1.1 U	2.44
				11/11/15 9/21/16		35.45 36.61	HWA Kane	950 3,800	42 160	240 1,300	<10 <20	6.32 6.32		282.0 350.0	0.00	12.5		16			290	<25	<2.0	2.5
				10/25/16		37.32	Kane	450	32	280	<4.0	6.88	15.7	323.0										
				10/26/16		38.23	Kane				-	6.62	14.9	316.0				22		<0.050				2.8
				9/18/18		36.41	Kane	1,370	78.1	673	5.85	6.69	15.8	369.0	0.12	17.3	2,620	37	5.48	<0.100	1.29	<0.0162	<0.0151	3.84
				11/30/18		36.63	Kane	2,670	305	1,440	<10	6.41	15.1	411.3	0.11	30.8	1,620	35	8.5	<0.100	0.197	<0.162	<0.151	4.18
MW-8	Deep	45 to 50	47.387	5/24/19 10/1/02	7.96	37.57	Kane Farallon	1,000 51	84 0.98	240 0.88	<10	6.68 7	13.6	409.5 487.0	0.16	-9.2 -355	3,900	37	6.1	<0.050	0.049	<0.003	<0.003	2.3
10144-0	Беер	+0 10 00	1.001	4/28/05		· ·	Farallon	6.4	<0.2	<0.2		6.3		186.0	0.73	104			1					<u> </u>
				8/15/06	]	· ·	Farallon	0.44	<0.2	<0.2		6.2		167.0	2.43	447								
				5/14/07			Farallon	4.3	<0.2	<0.2		6.1		145.0	2.89	419								
				11/27/07			Farallon	2.2	< 0.2	< 0.2		6.7		164.0	0.54	80.7								<b> </b>
				5/22/08 8/25/08			Farallon Farailon	79 93	7.2 4.8	12 4.4		6.2 6.3		139.0 118.0	5.8 2.1	153 391		12			<0.7	<1.2	<1.1	<1.5
				3/20/13		· ·	DOF	33	4.0	4.4	<0.02	6.7		218.0	0.06	10.1		12			649	<1.2	<1.1	6.04
				4/4/14	1	· ·	DOF	130	37	41	< 0.02	6.8		181.0	1	-44					<0.7	<1.2	<1.1	1.98
				10/11/14			DOF	150	37	140	0.2	6.2		190.0	0.9	49.1					43.3	<1.2U	<1.1U	1.99
	1	1		111/11/15	10.82	36.63	HWA	180	50	160	<1.0	6.06	1	225.0	0.85	-26.8	1	13	1		19	<1.0	0.59	2.2

					Depth to											Oxidation								Total
	Well Type and		Top of Casing		Water (ft	GW				(cis)	Vinyl				Dissolved	Reduction				Ammonia				Organic
	Water Bearing	Screened	(TOC) Elevation		below	Elevation	Sampled	PCE	TCE		Chloride	рН		Conductivity	Oxygen	Potential	Dissolved			as N	Methane	Ethane	Ethene	Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
				9/22/16	9.71	37.68	Kane	50	6.2	25	<0.20	6.33	45	229.0				10		10.050				
				10/26/16 7/17/18	8.48 9.7	38.91 37.69	Kane Kane	5.8 8.75	1.3 1.59	3.1 4.21	<0.20 <0.20	6.43 6.81	15 15.8	246.0 173.0	0.32			12		<0.050				1.4
				9/17/18	10.33	37.06	Kane	14.8	2.14	8.25	<0.20	6.56	20.1	187.0	0.16	70.9	<100	6.05	7.92	<0.100	0.0246	<0.0162	<0.0151	3.36
				12/20/18	10.05	37.34	Kane	14.5	4.37	9.38	<0.20	6.13	24.1	197.6	0.28	30	<100	4.13	6.53	<0.100	< 0.00863	<0.0162	<0.0151	1.66
				2/22/19	8.75	38.64	Kane	4.98	2.9	7.33	<0.20	6.28	28.8	183.2	0.24	65	<100	4.95	7.14	< 0.10	0.0173	< 0.0162	< 0.0151	1.82
				5/22/19 7/22/19	8.99 9.65	37.74	Kane Kane	3.1 1.9	1 0.48	1.3 0.53	<0.20	6.3 6.04	32.9 34.4	212.0 221.5	0.16	-8.4 54.2	300 450	5.8 7.5	7.8 8.4	<0.050 <0.050	0.036	<0.005 <0.0005	<0.005 <0.0005	2 2.1
				10/21/19	9.54	37.85	Kane	1.0	0.35	0.33	<0.020	6.06	25.8	222.7	0.14	101.3	460	9.6	9.4	< 0.050	0.49	<0.0005	<0.0005	2.6
				1/28/20	8.83	38.56	Kane	4.5	1.7	1	<0.020	6.2	18.8	216.5	0.28	65.2	210	12	8	<0.050	0.16	0.00028	<0.00029	2.7
MW-9	Deep	45 to 50	49.857	10/1/02			Farallon	250	<2.0	<2.0		7.3		373.0	0.91	-197								
	Decomissioned			4/27/05 8/15/05	-		Farallon Farallon	53,000 140,000	<100 <200	<100 <200		6.9		246.0	1.02	78.7								
				11/27/07	-		Farallon	13,000	<100	<100		7.5		117.0	7.5	148								
				5/22/08			Farallon	8,800	<50	<50		7.4		191.0	1.1	68.9								
				8/26/08			Farallon	6,000	3,400	<50		7.2		166.0	1.2	102		<5			982	<1.2	<1.1	1.65
				1/9/09			Farailon	160,000	<1,000	<1,000		7.5		213.0	1.4	78.9		<5			530	<50	<50	1.79
				6/11/09 9/14/09			Farallon Farallon	43,000 21,000	<300 <200	<300 <200		6.6 6.7		98.0 139.0	7.7 3.01	83.3 167		<5 <5	}		84 2.2	<5 <0.5	<0.5 <0.5	<1.0 1.4
				2/25/10			Farallon	16,000	<100	<100	<100	7.5		63.0	5.97	148		.0			<i>L</i> .L	-0.0	-0.0	17
				9/10/10			Farallon	6,500	36	<30	<30	7.7		147.0	2.91	-63.7		<5			4.3	<0.5	<0.5	<1.0
				6/10/11	-		Farallon	21,000	<200	<200	<200	7.6		218.0	0.39	63.2		<5			1400	<100	<100	1.3
				3/20/13 4/7/14			DOF DOF	DNAPL 15,000	DNAPL	DNAPL 22	<b>DNAPL</b> <0.02	7		194.0	0.4	-98					2200	<1.2	<1.1	1.89
				10/11/14	÷		DOF	3,300	96	54	<0.02 <2.0 U	6.5		168.0	0.4	-98					757	<1.2 U	<1.1 U	1.63
				11/11/15	11.9	38.00	HWA	890	560	680	<10	5.90		139.0	0.00	45.6		<5.0			190	<15	6.1	<1.0
				9/22/16	11.2	38.66	Kane	53,000	<500	<500	<500	7.41		222.0										
NUN/ 40	Ohallass	E to 05		10/26/16	9.71	40.15	Kane	42,000	<300	<300	<300	7.54	14.8	254.0				3,300		0.44				<1.0
MW-10	Shallow Decomissioned	5 to 25		4/27/05			Farallon	3	<0.2	<0.2														
MW-10R	Shallow	15 to 25	49.392	9/19/16	9.98	39.41	Kane	1.6	<0.20	<0.20	<0.20	6.61		188.0										
	Decomissioned			11/1/16	8.34	41.05	Kane	1.3	<0.20	<0.20	<0.20	6.78	15.4	212.0										
MW-11	Intermediate	25 to 33	47.207	11/28/07			Farallon	28	0.26	< 0.2		6.6		176.0	1.26	165								
				5/22/08 8/25/08			Farallon Farallon	23 27	0.24	<0.2 <0.2		6.2 6.3		174.0 142.0	0.84	132 238		18			29.8	<1.2	<1.1	1.71
				3/20/13	-		DOF	5.6	0.33	<b>0.2</b>	<0.02	6.6		296.0	0.1	-50.6		10			5770	<1.2	<1.1	6.53
				4/4/14	+		DOF	5.6	<0.2	<0.2	< 0.02	6.8		298.0	0.2	-107					3500	<1.2	<1.1	2.61
				10/11/14			DOF	4.8	0.18 J	0.13 J	<0.02 U	6.1		371.0	0.4	16.8					2150	<1.2 U	<1.1 U	2.72
				11/11/15		36.91	HWA	4.1	0.4	<0.20	<0.20	6.28		594.0	0.67	-82.8		18			840	<50	<7.0	4.5
				9/23/16 10/26/16		37.79 39.23	Kane Kane	9.9 2.0	<0.20 <0.20	<b>0.42</b> <0.20	<0.20 <0.20	6.29 6.38	16.5	408.0 376.0				24		<0.050				4.2
				7/17/18		38.19	Kane	11.2	2.12	3.73	<0.20	6.58		295.0	0.16					0.000				
				9/17/18		37.39	Kane	35.8	29.6	27.6	<0.20	6.24		357.0	0.06	-4.5	1,140	42.5	22.9	<0.100	0.158	<0.0162	<0.0151	9.07
				12/20/18		38.65	Kane	41	11.5	4.92	<0.20	5.72		287.0	0.16	14.3	611	37.4	13.5	< 0.100	0.109	< 0.162	<0.151	8.99
				2/21/19 5/22/19		39.31 38.73	Kane Kane	16.9 75	14.6 69	9.58 14	<0.20 <0.40			316.3 468.0	0.16	-70 -18	1,240 810	10.3 13	14.4 13	<0.10 <0.050	0.87 0.49	<0.0162 <0.0005		23.7 27
				7/25/19		38.09	Kane	39	41	7.7	<b>0.34</b>	6.2		407.0	0.04	-43.8	660	10	11	0.068	1.1	<0.0005	<0.0005	
				10/21/19		38.29	Kane	3.5	3.8	220	1.5	6.33		522.0	0.08	-59.4	1,500	<5.0	15	<0.050	1	< 0.0005	< 0.0005	
				1/22/20	8.09	39.12	Kane	2.5	2.7	230	70	6.66	20.4	388.6	1.1	-35.1	4,500	<5.0	12	1.3	2	<0.00022	<0.00029	11
MW-12	Intermediate	25 to 33	45.467	11/28/07 5/22/08			Farallon	2,300 2,800	30 53	39 61		6.9 6.5		326.0 277.0	1.48 1.51	165 132								2.02
				8/26/08			Farallon Farallon	2,800	<b>53</b> <10	<10		6.3		277.0	2.12	4.6		19			<0.7	<1.2	<1.1	5.02
				1/8/09	1		Farallon	3,200	88	44		6.5		309.0	0.77	70		22	1		16	<1.0	<1.0	3.11
	1			6/11/09	]		Farailon	2,500	53	29		6.2		293.0	0.62	75.4		22			30	<3.0	<3.0	1.7
						1	Farallon	700	5.1	<4		6.2		263.0	0.77	168		20			4.8	< 0.5	<0.5	2.4
				9/14/09	-						<u> </u>				0.00	07								
				5/27/10			Farallon	2,800	240	80	<20	6.5		265.0	0.32	8.7 9.5		15			100		~50	1 1
				5/27/10 9/9/10		· · ·	Farallon Farailon	2,800 1,500	240 22	<b>80</b> <20	<20	6.5 6.8		265.0 226.0	0.32	9.5		15 19			490 1000	<50	<50 <100	1.1 2.5
				5/27/10			Farallon	2,800	240	80		6.5		265.0				15 19			490 1000 12900		<50 <100 <1.1	1.1 2.5 7.97

					Depth to											Oxidation								Total
	Well Type and		Top of Casing		Water (ft	GW				(cis)	Vinyl				Dissolved	Reduction				Ammonia				Organic
	Water Bearing	Screened	(TOC) Elevation		below	Elevation	Sampled	PCE	TCE	1,2-DCE	Chloride	рН	Temp	Conductivity	Oxygen	Potential	Dissolved			as N	Methane		Ethene	Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
				10/10/14	0.61	35.93	DOF HWA	4,100 2,900	390	150	<2.0 U	6.2 6.26		360.0 397.0	0.2	-25.6 11		16			12800 3000	<1.2 U	<1.1 U	2.82
				9/22/16	9.61 8.89	36.58	Kane	1,100	180 140	1,100 730	<0.20 <10	6.37		410.0	0.00	11		16			3000	<150	<18	2.2
				10/26/16	7.26	38.21	Kane	1,300	230	1,600	<20	6.56	15.6	369.0				13		<0.050				2.1
				7/20/18	8.44	37.03	Kane	4,110	351	2,110	14.3	6.45	14.8	162.0	0.66	74.0	004	10.0	10.5	10,100	4.40	-0.0100	-0.0454	F 70
				9/10/18 11/30/18	9.14 8.59	36.33 36.88	Kane Kane	3,460 2,340	231 194	1,460 669	<b>11.1</b> <4.0	6.46 6.16	15.3 15.1	343.0 533.8	0.14	71.8 84.5	834 2,330	19.9 14	12.5 46.2	<0.100 <0.100	4.12 0.727	<0.0162 <0.162	<0.0151 <0.151	5.72 3.9
				5/24/19	7.92	37.55	Kane	5,400	400	780	<30	6.25	14.1	383.9	0.30	-89.5	530	24	9.5	< 0.050	3.7	<0.250	<0.250	2.5
				7/22/19	8.4	37.07	Kane	910	240	630	6.2	6.12	18.6	672.0	0.05	-341	3,400	18	42	< 0.050	3.2	< 0.0005	< 0.0005	2.8
				10/18/19 1/27/20	9.07 7.8	36.40 37.67	Kane Kane	360 260	68 120	240 450	0.84 1.9	5.85 6.28	16.2 15.5	361.6 459.0	0.12 0.31	40 38.2	6,000 6,100	14 12	36 32	<0.050 <0.050	3.3 2.4	<0.0005	<0.0005 <0.00029	2.1 2.3
MW-13	Deep	40 to 55	48.777	11/28/07	7.0	01.01	Farallon	<1.0	< 0.2	<0.2	1.5	7.10	10.0	152.0	1.35	151	0,100	12	02	10.000	2.7	10.00022	-0.00020	
	Damaged																							
MW-14	Intermediate Decomissioned	22 to 32	49.157	11/28/07 11/11/15	10.23	38.96	Farallon HWA	<0.2 <0.20	<0.2 <0.20	<0.2 <0.20	<0.20	7.0 5.56		146.0 395.0	4.0 0.00	160 -99		<10			11000	<500	<55	13
	Decomissioned			9/21/16	9.53	39.63	Kane	<0.20 0.91	<0.20	<0.20	<0.20	6.08		243.0	0.00	-99		<10			11000	~300	~55	15
				11/1/16	8.29	40.87	Kane	<0.20	<0.20	<0.20	<0.20	5.96	15.6	307.0										
MW-15	Intermediate	22 to 32		11/28/07			Farallon	<0.2	<0.2	<0.2		6.8		157.0	4.0	170								<u> </u>
MW-16	Decomissioned Deep	40 to 55		11/28/07			Farallon	10	<0.2	<0.2		7.9		124.0	6.9	130								<u> </u>
	Decomissioned	10 10 00		11/20/01	-	-	raranon		10.2	10.2		1.0		124.0	0.0	100								
MW-17	Deep Damaged	40 to 50	48.947	11/28/07		-	Farallon	6.5	<0.2	<0.2		7.7		188.0	0.49	141								
MW-18	Intermediate	22 to 30	48.747	11/28/07			Farallon	270	<2.0	<2.0		7.2		266.0	0.83	158								
	Decomissioned			5/22/08			Farallon	<0.25	< 0.25	<0.25		0.4		400.0							40700			- 10 -
				4/4/14	•	-	DOF DOF	2.4 0.49	<b>1.2</b>	14 3.6	3.3 1.3	6.1 5.9		493.0 449.0	0.3	-111 -6.6					16700 13300	<1.2 <1.2 U	<1.1 <1.1 U	48.5 29.8
				9/23/16	9.65	39.10	Kane	7.8	<0.20	1.3	0.26	6.02		238.0	0.4	-0.0					10000	\$1.2.0	\$1.10	20.0
				10/27/16	8.11	40.64	Kane	<0.20	<0.20	2.0	0.47	5.90	15.8	256.0										
MW-19	Shallow Decomissioned	9 to 19	47.517	11/16/15 9/21/16	9.31 9.20	38.26 38.32	HWA Kane	8,200 1,800	70 84	76 490	<50 <b>34</b>	6.34 6.34		638.0 313.0	3.75	49.2		31			74	<15	2.2	7.9
	Decomissioned			10/25/16	9.20 8.02	39.50	Kane	5,700	140	860	<u> </u>	6.70	17.8	296.0										<u> </u>
MW-20	Intermediate	25 to 30	46.857	11/16/15	9.20	37.70	HWA	900	60	37	17	6.17		557.0	0.00	-73		22			1800	<125	9.4	2.7
				9/21/16	9.02	37.84	Kane	190	45	120	9.0	6.66	10.4	340.0				40		0.01				4.2
				10/26/16 12/20/18	7.73 7.5	39.13 39.36	Kane Kane	140 32	44 879	120 552	17 2.23	6.44 5.72	16.4	348.0 263.9	0.05	-4.4	3,140	43 2.56	8.88	0.21	0.0446	<0.0162	<0.0151	4.3 95.4
				3/14/19	7.55	39.31	Kane	< 0.841	136	163	<2.0	6	-	219.3	0.2	68.3	1,460	0.348	7.8	1.07	0.0463	< 0.0162	< 0.0151	45.3
				6/6/19	8.03	38.83	Kane	0.43	51	31	<0.40	6.45	55.6	218.1	0.08	4.4	950	<5.0	7.4	0.75	0.51	< 0.05	< 0.05	16
				7/25/19 10/22/19		38.22 38.39	Kane Kane	0.82	36 19	27 68	0.052 0.15	6.36 6.32		210.2 375.7	0.13 0.07	-82 -47.2	800 1,200	<5.0 <5.0	6.4 13	0.89	0.67	<0.0005 <0.0005		
				1/28/20	7.66	39.20	Kane	<1.0	<1.0	190	46	6.87		483.0	0.13	-452	910	<5.0	14	0.65	13	<0.00022	<0.00029	
MW-21	Shallow	10 to 15	45.717	11/16/15		35.58	HWA	21,000	440	350	<100	7.38		1579.0	8.60	-18		96			310	<25	2.6	3.3
				9/22/16		36.67	Kane	27,000	540	360	<200	6.56	177	355.0										<u> </u>
				10/31/16 9/10/18	6.97 9.31	38.75 36.41	Kane Kane	8,400 410	210 12	<b>190</b> 9	<50 <0.20	6.32 6.22		319.0 280.0	2.40	93.5	<100	20	11.9	<0.100	0.0299	<0.0162	<0.0151	3.78
				12/3/18		38.49	Kane	122	1.67	<1.00	< 0.20	5.85		272.7	2.97	75.7	<100	12.9	4.61	< 0.100	< 0.00863		<0.0151	4.03
1444 00		541 50	44.057	5/24/19	7.69	38.03	Kane	82	1.40	0.5	<0.40	6.08	14.3	248.0	3.51	2.7	<56	12	3.7	<0.050	0.0026	< 0.0005	< 0.0005	<1.0
MW-22	Deep	54 to 59	44.957	11/16/15 9/22/16		36.84 36.55	HWA Kane	<u>69</u> 11	<b>2.8</b> <0.20	2.0 1.5	<i>&lt;0.40</i> <i>&lt;</i> 0.20	7.30 7.42		296.0 236.0	0.00	-52.2		<5.0			1400	<250	<9.0	1.5
				10/26/16		37.80	Kane	2.1	<0.20	2.2	<0.20	7.63	14.7	262.0				<5.0		0.24				1.2
				7/16/18	8.27	36.69	Kane	<1.00	<0.50	1.6	<0.20	7.87	15.4	214.0	0.00									
				9/19/18 12/3/18	8.85 8.63	36.11 36.33	Kane Kane	<1.00 <1.00	<0.50 <0.50	1.22 1.11	<0.20 <0.20	7.54 7.22		251.0 267.8	0.45	33.9 -16	<100 <100	0.932 0.533	6.65 6.66	0.392 0.291	0.654 0.0695	<0.0162 <0.0324		2.37 2.26
				6/20/19		37.05	Kane	<b>0.43</b>	< 0.50	0.87	<0.20	7.22		207.0	0.07	-106.6	250	<5.0	3.9	0.291	0.0095	< 0.0005		
MW-23	Shallow	6 to 16	48.027	9/20/16		39.11	Kane	0.46	<0.20	<0.20	<0.20	5.91		123.0										
				11/1/16	7.29	40.74	Kane	2.2	<0.20	< 0.20	< 0.20	6.19		128.0	0.07			0.00	0.70	10 100	4.04	10.0100	10 01 51	0.74
				9/19/18 12/5/18	9.04 8.70	38.99 39.33	Kane Kane	<1.00 <b>1.05</b>	<0.50 <0.50	<1.00 <1.00	<0.20 <0.20	6.16 5.65		94.0 112.4	0.87	54.7 49.8	<100 124	8.86 10.3	2.79 2.16	<0.100 <0.100	1.04 0.0854	<0.0162 <0.0162		2.74 2.4
				2/12/19	8.18	39.85	Kane	2.11	<0.50	<1.00	<0.20	5.34		75.1	5.16	128.7	<100	6.02	1.46	<0.100	< 0.00863			
	1	1	1	6/4/19	8.57	39.46	Kane	0.94	<0.20	<0.20	<0.20	6.13	44.0	113.4	0.87	19.1	720	6.7	3.3	< 0.050	0.14	< 0.0075		

					Depth to											Oxidation								Total
	Well Type and		Top of Casing		Water (ft	GW				(cis)	Vinyl				Dissolved	Reduction				Ammonia				Organic
	Water Bearing	Screened	(TOC) Elevation		below	Elevation	Sampled	PCE	TCE	,	Chloride	pН	Temp	Conductivity	Oxygen	Potential	Dissolved	Sulfate	Chloride	as N	Methane	Ethane	Ethene	Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-24	Deep	44 to 54	48.962	11/1/16	8.89	40.07	Kane	9.0	<0.20	<0.20	<0.20	8.44	14.7	225.0										
MW-25	Shallow	7.5 to 17.5	46.207	9/20/16	9.22	36.99	Kane	4,200	<20.0	<20.0	<20.0	6.56		324.0										
1444 00	Decomissioned	051.05	10.0.17	10/25/16	7.75	38.46	Kane	99	7.4	10	<1.0	6.58	17.3	184.0										──
MW-26	Intermediate Decomissioned	25 to 35	46.047	9/20/16 10/31/16	9.04 7.65	37.01 38.40	Kane Kane	<u>13</u> 310	0.29	<b>5.3</b> <2.0	<0.20 <2.0	6.48 6.59	16	379.0 364.0										
MW-27	Shallow	6 to 16	48.177	9/15/16	10.43	37.75	Kane	120	<1.0	<1.0	<1.0	6.31	10	87.0										
				10/31/16	8.22	39.96	Kane	120	<0.40	<0.40	<0.40	5.95	16.4	63.0										
				7/19/18	10.40	37.78	Kane	138	<0.50	<1.00	<0.20	5.89	15.2	126.0	17.18									
				9/14/18	10.98	37.20	Kane	106	<0.50	<1.00	<0.20	5.64	16.4	128.0	8.48	49.4	<100	38	1.07	<0.100	< 0.00863	<0.0162	<0.0151	2.15
				12/12/18		38.09	Kane	169	0.712	<1.00	<0.20	5.17	14.5	133.3	7.04	48.3	<100	34.9	2.67	<0.100	< 0.00863	<0.0162	<0.0151	0.793
				5/24/19 7/16/19	9.65 10.39	38.53 37.79	Kane Kane	<u>110</u> 91	<1.0 <0.40	<1.0 <0.40	<1.0 <0.040	5.73 4.53	13.1 16.3	131.9 120.9	8.54 6.39	41.5 155.7	<56 <56	24 23	4.7 3.6	<0.050 <0.050	<0.001 <0.001	<0.0005 <0.0005	<0.0005 <0.0005	<1.0 <1.0
				10/18/19	-	38.13	Kane	130	<1.0	<1.0	<0.040	5.20	10.3	97.3	7.17	243.9	<50 <56	23	4.5	< 0.050	<0.001	<0.0005	<0.0005	8.7
				1/29/20	8.22	39.96	Kane	90	1.2	1.50	<0.040	5.01	12.2	134.2	6.26	166.3	180	17	5.2	< 0.050	< 0.00055	< 0.00022	< 0.00029	-
MW-28	Intermediate	25 to 35	48.187	9/15/16	10.39	37.80	Kane	<0.20	<0.20	<0.20	<0.20	6.22		157.0										
				11/1/16	8.8	39.39	Kane	<0.20	<0.20	<0.20	<0.20	5.97	15.2	105.0										<u> </u>
				7/19/18	10.48	37.71	Kane	<1.00	< 0.50	<1.00	< 0.20	6.32	14.2	122.0	3.12	00.4		0.40	7.40	10 100	-0.00000	10.0400	10 04 54	0.11
				9/14/18 12/12/18	10.6 10.01	37.59 38.18	Kane Kane	<1.00 <1.00	<0.50 <0.50	<1.00 <1.00	<0.20 <0.20	6.12 5.70	14.6 13.9	127.0 130.1	2.01 1.78	62.4 48.7	<100 <100	8.42 11.8	7.43 8.06	<0.100 <0.100	<0.00863 <0.00863	<0.0162 <0.0162	<0.0151 <0.0151	2.44 0.69
				2/19/19	9.07	39.12	Kane	<1.0	<0.50	<1.00	<0.20	5.70	13.9	108.6	2.56	202.9	<100	8.78	5.65	<0.100	< 0.00863	<0.0162	<0.0151	0.618
				5/24/19	9.85	38.34	Kane	<0.20	<0.20	<0.20	<0.20	5.54	13.6	116.0	1.8	-74.6	<56	9.5	6.2	< 0.050	0.0096	< 0.0005	< 0.0005	<1.0
MW-29	Deep	45 to 55	48.242	9/15/16	10.5	37.74	Kane	<0.20	<0.20	<0.20	<0.20	7.33		254.0										
				10/27/16	9.01	39.23	Kane	0.44	<0.20	<0.20	<0.20	7.06	14.5	252.0										
				7/17/18 9/14/18	10.32 10.73	37.92 37.51	Kane	<1.00	<0.50	<1.00	<0.20 <0.20	7.57	14.4	236.0	0.00 0.08	10.2	101	8.37	7.17	0.255	0.0242	<0.0162	<0.0151	4.20
				9/14/18		37.99	Kane Kane	<1.00 <b>1.06</b>	<0.50 <0.50	<1.00 <1.00	<0.20	7.31 7.05	14.5 13.8	262.0 276.8	0.08	<u>19.3</u> -16.7	191 <100	6.72	5.32	0.255	0.0242	<0.0162	<0.0151	4.32 3.02
				6/4/19	10.08	38.16	Kane	0.26	<0.20	<0.20	<0.20	7.40	16.3	265.3	0.10	15	450	<5.0	26	0.240	0.32	<0.015	< 0.015	2.2
				7/16/19	10.61	37.63	Kane	<0.20	<0.20	<0.20	<0.020	6.88	16.2	274.4	0.11	-106.2	460	<5.0	5.2	0.3	0.35	<0.0005	< 0.00050	
				10/18/19	-	37.76	Kane	<0.20	<0.20	<0.20	<0.020	6.99	14.5	207.7	0.11	7.4	610	<5.0	6.4	0.29	0.39	<0.0005	<0.0005	2.2
N/// 00	Ohaillassa	0.1- 10	40.440	1/29/20	9.61	38.63	Kane	< 0.20	< 0.20	<0.20	< 0.020	7.29	13.7	249.5	0.04	-82	570	<5.0	6.3	0.24	0.36	<0.00022	<0.00029	1.9
MW-30	Shallow Decomissioned	9 to 19	48.142	9/20/16 10/26/16	8.81 7.33	39.33 40.81	Kane Kane	92,000 130,000	<500 <1,000	<500 1,300	<500 <1.000	6.65 6.40	15.7	241.0 619.0				120		0.15				26
MW-31	Deep	40 to 50	47.817	9/20/16	9.81	38.01	Kane	130,000	0.25	<0.20	<0.20	6.80	13.7	244.0				120		0.15				20
	Decomissioned			10/28/16		39.57	Kane	7.8	0.22	<0.20	<0.20	6.79		250.0										
MW-32	Deep	45 to 55	45.952	9/19/16	8.94	37.01	Kane	950	7.7	<4.0	<4.0	7.57		285.0										
	Decomissioned			10/27/16	7.51	38.44	Kane	1,200	<10	<10	<10	7.65	14.8	276.0										
MW-33	Deep	40 to 50	49.547	9/16/16	10.61	38.94	Kane	< 0.20	< 0.20	<0.20	< 0.20	6.38	45.0	258.0										<u> </u>
				10/27/16 12/5/18	9.19 10.4	40.36 39.15	Kane Kane	<b>0.34</b> <1.00	<0.20 <0.50	<0.20 <1.00	<0.20 <0.20	6.37 6.13	15.0 18 1	221.0 174.3	0.07	43.5	<100	10.6	6.74	<0.100	< 0.00863	<0.0162	<0.0151	3.01
				2/19/19		40.38	Kane	<1.0	< 0.50	<1.0	<0.20	6.35	15.1	164.3	0.07	204.8	<100	11.5	6.45	<0.100	< 0.00863			
				6/4/19	-	38.99	Kane	<0.20	<0.20	<0.20	<0.20	6.42		196.6	0.19	31.6	<56	13	6.6	< 0.050	0.0012	< 0.0005		
MW-34	Deep	40 to 50	46.597	9/16/16		37.41	Kane	20	1.5	12	0.29	6.33		271.0										
				10/27/16	-	38.85	Kane	6.6	0.54	2.4	< 0.20	6.21		254.0	0.00									<u> </u>
				7/16/18 9/18/18		37.78 37.15	Kane Kane	<1.00 <1.00	<0.50 <0.50	<1.00 <1.00	<0.20 <0.20	6.53 6.37		240.0 255.0	0.00 0.18	66.2	724	11.5	30.5	<0.100	0.0497	<0.0162	<0.0151	2.92
				12/11/18		38.10	Kane	<1.00	<0.50	<1.00	<0.20	5.92		284.6	0.09	44.3	561	13.5	39	<0.100	0.0497	<0.0162		
				2/21/19	-	39.01	Kane	1.29	< 0.50	1.52	<0.20	5.95		255.8	0.22	91.9	367	14.6	32.7	<0.10	0.0274		< 0.0151	
				6/3/19	8.28	38.32	Kane	1.3	<0.20	3.2	<0.20	6.16	32.4	263.9	0.19	18.6	440	15	29	<0.050	0.14	<0.0075	<0.0075	1.8
MW-35	Deep	48 to 58	44.247	9/16/16		36.06	Kane	2.1	< 0.20	< 0.20	< 0.20	6.92		230.0	]									<u> </u>
				10/27/16 7/16/18		37.60 36.51	Kane	<b>1.4</b> <1.00	<0.20 <0.50	<0.20 <1.00	<0.20 <0.20	6.92 7.35		235.0 217.0	0.13									+
				9/10/18		36.51	Kane Kane	<1.00	<0.50	<1.00	<0.20	7.35	15.0	217.0	0.13	21.8	1,130	2.94	8.11	0.244	0.323	<0.0162	<0.0151	3.3
				12/11/18		39.07	Kane	<1.00	<0.50	<1.00	<0.20	6.66	14.1	269.9	0.23	5.6	942	7.13	13.1	0.244	0.323	<0.0162		2.09
				6/3/19	-	36.84	Kane	0.66	<0.20	<0.20	<0.20	6.45	14.8	221.6	1.66	19.3	1,900	5.4	12	0.15	0.15	< 0.0075		-
				7/25/19		36.33	Kane	<0.20	<0.20	<0.20	<0.020	6.31		590.0	0.08	-224	2,700	5.2	12	0.23	0.21	<0.0005		
				10/18/19	-	36.28	Kane	4.0	< 0.20	0.44	<0.020	5.76		166.7	0.15	83.2	<56	14	14	< 0.050	0.0016	< 0.0005		
MW-36	Intermodiato	25 to 35	47.327	1/28/20 9/19/16	7.13 8.68	37.12 38.65	Kane	0.49 2.5	< 0.20	<0.20	<b>0.040</b> <0.20	6.86 6.56	13.8	215.9 257.0	0.05	-29.1	2,700	<5.0	6.6	0.15	0.39	<0.00022	<0.00029	1.9
10100-30	Intermediate	2010 00	41.321	11/1/16		40.02	Kane Kane	7.3	<0.20	<0.20 <0.20	<0.20	6.60	15.1	264.0										+
																								1

Well MW-38 MW-39	Zone Deep Deep	Depth, (ft bgs) 40 to 50	(feet)*		below	GW Elevation	Sampled	PCE	TCE	(cis) 1,2-DCE	Vinyl Chloride	pН	Temp	Conductivity	Dissolved Oxygen	Reduction Potential	Dissolved	Sulfate	Chloride	Ammonia as N	Methane	Ethane	Ethene	Organic Carbon
		40 to 50		Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
		40 to 50		11/1/16	7.53	40.03	Kane	0.74	<0.20	<0.20	<0.20	6.54	14.9	247.0										
MW-39	Deep		47.187	9/19/16 10/28/16	10.44 7.66	36.75 39.53	Kane Kane	1.3 0.26	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	6.89 6.78		271.0 266.0										
		40 to 50	44.524	10/25/16	6.20	38.32	Kane	95	<0.20	<0.20	<0.20	7.11	16.5	279.0										
				7/25/18	7.15	37.37	Kane	<1.00	<0.50	1.03	<0.20	7.11	17.2	190.0	0.00									
				12/17/18	6.33	38.19	Kane	2.32	2.62	6.81	< 0.20	6.39	24.1	225.4	0.15	-3.5	4,580	2.13	3.45	0.563	0.364	< 0.0162	< 0.0151	3.36
				3/13/19 5/29/19	6.32 6.49	38.20 38.03	Kane Kane	<1.00 <b>0.33</b>	<1.00 <b>0.34</b>	<b>1.99</b> <0.20	<0.20 <0.20	6.08 6.61	26.6 28.4	63.3 219.2	1.33 0.14	82.2 1.8	4,380 4,500	<0.300 <5.0	3.76 4.3	0.445	0.552	<0.0162 <0.10	<0.0151 <0.10	4.15 3.3
				7/23/19	7.02	37.50	Kane	0.52	0.63	1.3	<0.20	6.33	28.2	215.5	0.14	-96.6	4,300	<5.0	4.3	0.40	1	<0.0005	<0.0005	2.9
				10/24/19		37.58	Kane	0.52	0.52	1.6	<0.020	6.1	26.2	250.0	0.24	19.8	4,600	<5.0	4.5	0.48	0.91	<0.0005	<0.0005	3.1
		15 1 05	11.501	1/28/20	5.53	38.99	Kane	<0.20	<0.20	1.8	<0.020	6.5	20.2	272.1	0.21	57.1	5,000	<5.0	4.8	0.53	0.67	<0.00022	<0.00029	3.2
MW-40	Shallow	15 to 25	44.521	10/25/16 11/2/16	8.21 6.3	36.31 38.22	Kane Kane	25,000 11,000	<100 <100	<100 <100	<100 <100	6.69 6.73	16.5 14.9	321.0 229.0										
				7/25/18	0.3	37.52	Kane	5,460	<b>55.6</b>	9.5	<0.20	7.24	20.4	320.0	0.13									
				12/17/18	6.28	38.24	Kane	212	46	56.7	<0.20	6.43	34.3	69.2	2.39	52.6	<100	1.55	0.586	<0.100	< 0.00863	<0.0162	<0.0151	1.11
				3/13/19	6.29	38.23	Kane	213	146	746	<0.20	6.08	29.5	63.3	1.33	82.2	<100	0.819	2.08	<0.10	0.00959	< 0.0162	<0.0151	2.03
				5/29/19 7/23/19	6.49 7	38.03 37.52	Kane Kane	560 530	600 380	4,300 4,700	<20	6.41 6.29	30.7 30.5	268.1 319.8	0.23	3.8 -112.4	7,600 19,000	<5.0 <5.0	11	0.35	0.47	0.011	<0.025 <0.0005	11 12
				10/25/19		37.52	Kane	65	84	1,500	<u>11</u> 1.6	5.82	23.7	163.6	0.05	35.6	4,600	<5.0	12 4.9	0.39	0.49	<0.0002	0.0016	12
				1/28/20	5.51	39.01	Kane	150	130	2,300	1600	6.89	21.2	368.4	0.01	-60.6	9,800	<5.0	19	0.33	10	< 0.00022	0.12	10
MW-41	Shallow	5 to 15		1/3/17	8.31		Kane	3.4	<0.20	<0.20	<0.20	6.13		129.0										
				10/23/18	-	-	Kane	2.02	< 0.50	<0.50	<0.20	0.04	45.4	04.0	5.00	40.0	-50	0.0	4.5	10.050	10.001	<0.000F	-0.0005	
MW-42	Int./Deep	30 to 45		6/7/19 1/3/19	8.12 10.21		Kane Kane	<b>1.30</b> <1.00	<0.20 <0.50	<0.20 <1.0	<0.20 <0.20	6.31	15.1	84.9	5.26	43.2	<56	6.6	4.5	<0.050	<0.001	<0.0005	<0.0005	<1.0
	1111./ D 00p			3/18/19	8.79		Kane	<1.00	< 0.50	<1.0	<0.20	6.63	32.8	155.4	0.06	76.4	821	1.99	3.57	0.266	0.177	<0.0162	<0.0151	1.9
				6/5/19	9.11		Kane	<0.20	<0.20	<0.20	<0.20	6.92	22.9	216.9	0.13	5	5,500	<5.0	6.3	0.2	4.1	<0.25	<0.25	2.3
				7/30/19	9.65		Kane	< 0.20	< 0.20	0.72	0.053	6.49	26.4	713.0	0.05	-321.9	5,300	8	8.1	0.27	2.5	< 0.0005	< 0.0005	1.7
				10/22/19 1/29/20	9.29 8.49		Kane Kane	<0.20 <0.20	<b>1.90</b>	1.9 20	0.056	6.04 6.52	18.3 14.1	254.0 454.1	0.10	-10.2 -24.8	7,600 19,000	7.3	13 14	0.28	3.2 7.1	<0.0005 <0.00022	<0.0005 <0.00029	3.9 6.3
MW-43	Shallow	10 to 25		1/2/19	10.4		Kane	225	31.6	7.16	<0.20	0.02	17.1		0.02	24.0	10,000	10.00	17	0.10	7.1	10.000ZZ	·0.00020	0.0
				3/18/19	8.42		Kane	1.66	<0.50	1.20	<0.20	6.61	33.3	183.6	0.10	-4.6	286	14.4	3.34	<0.10	0.0336	<0.0162	<0.0151	8.25
				6/5/19	8.68		Kane	9.10	7.60	35.0	< 0.20	6.86	24.1	168.3	0.09	21.5	450	15	3.7	0.08	0.53	< 0.038	< 0.038	5.8
				7/30/19	9.17 9.67		Kane Kane	<0.20 <b>0.80</b>	<b>0.23</b> <0.20	2.0 24.0	<0.020 <b>0.29</b>	6.32 6.17	26.0 19.2	711.0 552.0	0.09	-281 -40.2	280 18,000	<u>11</u> 9.3	5.7 10	0.11	0.44 0.32	<0.0005 <0.0005	<0.0005 <0.0005	4.7 110
				1/29/20	7.76		Kane	0.88	<0.20	8.7	1.9	6.58	12.2	836.0	0.00	141.7	1,800	130	8.2	0.43	0.32	< 0.00022	0.0029	10
MW-44	Intermediate	25 to 35		6/6/19	7.49		Kane	<0.20	1.70	28.0	<0.20	6.35	51.4	229.6	0.18	-1.9	1,700	<5.0	7.6	0.49	0.24	<0.025	<0.025	19
				7/25/19	8.11		Kane	< 0.20	1.50	2.7	0.047	6.15	47.4	254.1	0.34	-77	2,200	<5.0	6.6	0.71	0.13	< 0.0005	0.0039	20
				10/22/19 1/29/20	9.85		Kane	<0.20 <0.40	0.77	14.0 38.0	0.29	5.94 6.44	37.2 27.5	450.1 349.5	0.07	15.4 46.8	3,900 3,400	<5.0 <5.0	12 10	0.73	1.4 9.9	<0.0005 <0.00022	0.0011	22
MW-45	Shallow	7 to 17		6/6/19			Kane Kane	<0.40	<b>1.20</b> < 0.20	6.0	<0.20	6.81		798.0	0.13	18.4	770	<5.0	38	0.02	0.11	<0.00022		16 120
				7/25/19			Kane	<0.20	<0.20	0.75	0.043	6.49		825.0	0.25	-67.4	2,000	<5.0	21	0.63	1.2	< 0.0005	<0.0005	88
				10/22/19			Kane	<0.20	<0.20	0.88	<0.020	6.28		569.0	0.14	51.6	1,600	12	15	0.75	1.5	<0.0005	< 0.0005	
HZ-MW-1	Shallow	5 to 15	41.637	1/29/20 9/5/08	6.6		Kane HWA	<1.0 <b>0.58</b>	<1.0 <0.2	<b>160</b> <0.2	<b>46</b> <0.20	6.70	21.8	609.0	0.01	-54.2	5,400	<5.0	14	0.79	5.2	<0.00022	0.0072	21
	Shallow	51015	41.007	5/30/14	+	-	HWA	21	0.2	<0.2	<0.20	6.62		478.0	3.23									1
				9/12/14	1		HWA	33	0.33	<0.20	<0.20	6.51		279.0	2.35									
				12/15/14	]		HWA	15	<0.20	<0.20	<0.20	6.3		223.0	2.02									
				3/19/15	7.90	22.75	HWA	11	<0.20	<0.20	<0.20	6.54 6.42		295.0	8.29									
				9/21/16 10/31/16		33.75 35.41	Kane Kane	7.2 6.9	<0.20	<0.20 <0.20	<0.20 <0.20	6.42	14.5	120.0 113.0										
				7/20/18		34.17	Kane	<1.00	< 0.50	<1.00	<0.20	6.73	16.9	125.0	10.69									1
				9/13/18	8.2	33.44	Kane	10.8	<0.50	<1.00	<0.20	6.59	18.7	139.0	7.20	100.6	<100	6.43	2.73	<0.100	< 0.00863		<0.0151	1.54
				12/19/18		34.70	Kane	7.8	< 0.50	<1.00	< 0.20	6.21	13.5	159.8	5.00	45	<100	8.54	3.43	<0.100	< 0.00863			1.17
				5/30/19 7/30/19		34.83 34.44	Kane Kane	<u>11</u> 14	<0.20 <0.20	<0.20	<0.20 <0.020	6.55 6.17	14.0 17.3	190.5 189.6	7.81 4.08	15.2 -70.1	<56 <56	7.4 6.6	5.9 4.4	<0.050 <0.050	0.0014	<0.0005 <0.0005	<0.0005 <0.0005	1.1
				10/21/19		34.19	Kane	14	<0.20	0.61	<0.020	5.65	15.9	172.5	4.00	200	<56	6.5	5.1	<0.050	<0.001	<0.0005	<0.0005	1.1
				1/24/20	6.39	35.25	Kane	5.9	<0.20	<0.20	<0.020	5.85	12.6	173.1	24.0	86.3	<56	16	4.0	< 0.050	1.5	< 0.00022	< 0.00029	
HZ-MW-4	Shallow	8 to 18	40.177	9/5/08			HWA	<0.2	<0.2	<0.2	<0.20													
				6/9/14 9/12/14	4		HWA HWA	<0.20 <b>2.6</b>	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	6.35 6.42		407.0 361.0	2.73 2.12									<b> </b>

	Mall Type and		Top of Cooing		Depth to	CIM				(cic)	Vind				Disselved	Oxidation				Ammonia				Total
	Well Type and Water Bearing	Screened	Top of Casing (TOC) Elevation	Date	Water (ft below	GW Elevation	Sampled	PCE	TCE	(cis) 1,2-DCE	Vinyl Chloride	pН	Temp	Conductivity	Dissolved Oxygen	Reduction Potential	Dissolved	Sulfate	Chloride	Ammonia as N	Methane	Ethane	Ethene	Organic Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	By	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
				12/16/14			HWA	0.54	<0.20	<0.20	<0.20	6.56		316.0	2.17									
				3/30/15	6 1 9	24.06	HWA	< 0.20	<0.20	<0.20	<0.20	5.47		323.0 459.0	2.67 39.20	6.5		<50 23	-		< 0.50	<0.50	<0.50	
				11/11/15 9/23/16	6.18 7.16	34.06 33.02	HWA Kane	0.27 0.31	<0.20 <0.20	<b>0.51</b> <0.20	<b>0.44</b> <0.20	6.22 6.23		459.0 331.0	39.20	6.5		23			1.3	<0.50	<0.50	2.3
				10/28/16	5.22	34.96	Kane	<0.20	<0.20	<0.20	<0.20	6.36	16.9	308.0										
				7/24/18	6.95	33.23	Kane	<1.00	< 0.50	<1.00	< 0.20	6.75	15.8	356.0	3.35	50.0	404	40.7	10	10,100	-0.00000	-0.0100	10.0454	0.05
				9/13/18 12/21/18	7.59 6.27	32.59 33.91	Kane Kane	<1.00 <1.00	<0.50 <0.50	<1.00 <1.00	<0.20 <0.20	6.52 6.21	16.9 13.1	354.0 420.9	2.25 0.19	53.6 10	161 <100	40.7 36.5	13 15	<0.100 <0.100	<0.00863 <0.00863	<0.0162 <0.0162	<0.0151 <0.0151	3.95 3.1
				5/30/19	6.37	33.81	Kane	0.41	<0.20	<0.20	<0.20	6.38	16.3	446.1	0.30	45.3	<56	45	21	< 0.050	0.0016	< 0.0005	< 0.0005	2.6
HZ-MW-14S	Shallow	5 to 15	42.377	2/25/13		-	HWA	2,400	47	29		0.40												
				5/29/14 9/11/14		-	HWA HWA	1,000 4,900	23 96	11 78	<10 <20	6.46 6.51		799.0 441.0	0.16 0.54									
				12/15/14			HWA	790	16	13	<4.0	6.34		396.0	0.34									+
				3/20/15		-	HWA	200	6.5	3.8	<1.0	6.4		482.0	13.86									
				11/11/15	7.65	34.79	HWA	75.0	3.1	8.6	<0.40	6.10		437.0	1.3	24.8		30			170	<0.50	<0.50	2.2
				9/26/16 10/28/16	7.52 5.82	34.86 36.56	Kane Kane	1,800 440	57 13	110 12	<20 <2.0	6.34 6.43	18.4	330.0 309.0										
				7/20/18	7	35.38	Kane	2,580	52.5	86.6	0.572	6.87	16.9	300.0	0.70									
				9/21/18	7.36	35.02	Kane	2,710	61.9	203	<2.0	6.52	19.1	346.0	0.13	42.9	<100	27.4	7.81	<0.100	0.361	<0.0162	<0.0151	3.87
				12/13/18 5/21/19	6.23 6.43	36.15 35.95	Kane Kane	240 240	7.33	6.12 3.2	<0.20 <2.0	6.11 6.47	15.5 14.7	327.3 339.2	0.17	20.4 -26.3	<100 490	22.4 21	7.29 7.2	<0.100 <0.050	<0.00863 0.053	<0.0162 <0.005	<0.0151 <0.005	1.89 1.7
				7/25/19	6.31	36.07	Kane	160	6.8	<u> </u>	<0.10	6.15	20.8	303.6	0.11	-57.4	160	18	7.8	0.53	0.033	< 0.0005	< 0.0005	1.7
				10/16/19	6.99	35.39	Kane	78	5.9	3.6	< 0.04	6.41	18.7	295.1	0.05	103.9	<56	17	8	< 0.050	0.29	< 0.0005	< 0.0005	1.9
			40.007	1/22/20	5.65	36.73	Kane	23	4.2	15	0.069	6.31	11.6	265.0	2.22	115	<56	19	9.5	<0.050	0.014	<0.00022	<0.00029	2.8
HZ-MW-14D	Intermediate	30 to 40	42.397	2/25/13 5/29/14		-	HWA HWA	<u>360</u> 100	7.6 3.7	21 16	<1.0	6.47		622.0	0.23									
				9/11/14		-	HWA	100	3.2	10	<1.0	6.45		352.0	0.23									<u> </u>
				12/15/14			HWA	100	2.8	15	<1.0	6.41		332.0	0.87									
				3/20/15	0.40	04.04	HWA	62	2.4	9.8	<0.40	6.69		423.0	NA	04.0		10			00	10.50	-0.50	10
				11/11/15 9/26/16	8.12 7.38	34.31 35.02	HWA Kane	970 37	16 1.5	14 2.9	<10 <0.20	6.08 6.10		414.0 434.0	0.00	24.9		12			69	<0.50	<0.50	1.2
				10/28/16	5.62	36.78	Kane	55	2.8	6.1	<0.20	6.21	18.1	373.0										
				7/20/18	6.96	35.44	Kane	42.9	2.18	7.55	<0.20	6.42	16.4	220.0	0.33									
				9/19/18 12/13/18	7.19 6.7	35.21 35.70	Kane Kane	36.4 44.2	1.98 3.3	7.14 13.5	<0.20 <0.20	6.23 5.87	15.9 14.9	500.0 523.1	0.23	100.4 36	<100 <100	10 15.5	100 90.8	<0.100	0.0317	<0.0162 <0.0162	<0.0151 <0.0151	4.3 0.968
				5/21/19	6.16	36.24	Kane	<u>44.2</u> 65	2.9	13.5	<0.20	6.09	14.9	523.1	0.07	-40.7	<56	10	90.8 87	<0.100 <0.050	0.0324	< 0.0102	< 0.0131	<1.0
				7/30/19	6.92	35.48	Kane	100	4.7	28	0.30	5.84	19.6	454.8	0.22	-86.5	<56	11	69	<0.050	0.92	< 0.0005	< 0.0005	1
				10/16/19	7.7	34.70	Kane	190	7.9	48	0.51	6.13	16.3	443.8	0.02	143.8	<56	9.3	75	< 0.050	1.5	< 0.0005	< 0.0005	<1.0
HZ-MW-15S	Shallow	10 to 15	41.747	1/22/20 3/25/13	5.98	36.42	Kane HWA	400 86	24 2.3	<u>140</u> 3.6	1.1	5.99	13.0	453.7	2.10	132.8	<56	11	65	<0.050	2.6	<0.00022	<0.00029	1.2
	Chanow	10 10 10	- 1.1 - 1	5/29/14		-	HWA	150	7.1	3.6	<1.0	6.35		785.0	1.45									
				9/13/14			HWA	400	19	12	<0.20	6.87		575.0	0.25									
				12/15/14 3/20/15			HWA HWA	<u> </u>	14 6.2	12 3.5	<2.0 <1.0	6.44 6.32		549.0 579.0	0.95 NA				-		-			<b>_</b>
				11/12/15	6.99	34.79	HWA	140	4.9	4.2	<10	5.9		394.0	0.13	97.4		26			3.1	<250	<12	1.1
				9/27/16	6.65	35.10	Kane	57	1.6	1.4	<0.40	6.21		280.0										
				10/28/16	4.15	37.60	Kane	81	3.3	2.9	<0.40	6.30		314.0		107	100	10.0	0.07					
				9/19/18 12/27/18	6.61 4.4	35.14 37.35	Kane Kane	<u>29.2</u> 11.8	<b>1.2</b> <0.50	<b>1.11</b> <1.00	<0.20 <0.20	6.30 6.07	19.5	260.0 278.8	0.47 0.68	187 38.5	<100 <100	18.8 19.5	2.67 2.85	<0.100 <0.100	<0.00863 <0.00863			4.16
				6/4/19	4.92	36.83	Kane	8.9	<b>0.34</b>	<0.20	<0.20	6.32	15.9	256.6	0.00	-10.7	<56	19.5	3	<0.050	0.019	<0.0102	< 0.001	1.1
				7/24/19	5.66	36.09	Kane	11	0.41	<0.20	<0.02	6.06	18.7	227.5	0.38	-69.1	<56	13	3.6	<0.050	0.02	<0.0005	<0.0005	1
				10/17/19		35.88	Kane	<b>9.8</b>	0.39	<0.20	< 0.02	6.01	16.3	202.4	0.23	189	<56	13	5.1	<0.050	0.0076	<0.0005	< 0.0005	
HZ-MW-15D	Intermediate	20 to 30	41.787	1/22/20 3/25/13	4.02	37.73	Kane HWA	4.2 330	<0.20	<0.20	<0.02	5.99	10.4	295.5	6.00	129.5	<56	12	3.0	<0.050	0.0086	<0.00022	<0.00029	1.4
	momodiate	2010 00	41.101	5/29/14			HWA	3,700	290	12	<20	6.28		1000.0	0.12									+
				9/13/14			HWA	93	6.9	4.5	<0.40	6.33		308.0	0.30									
				12/15/14			HWA	130	9.2	4.3	<1.0	6.34		290.0	1.87									<b></b>
				3/20/15 11/11/15	7.2	34.63	HWA HWA	6,700 1,800	400	280 100	<30 <10	6.27 5.66		491.0 260.0	NA 0.00	95.5		28			2800	<250	<12	<1.0
				9/27/16		35.10	Kane	840	40	43	<4.0	5.96		211.0	0.00	20.0			1					<u> </u>

	Well Type and		Top of Casing		Depth to Water (ft	GW				(cis)	Vinyl				Dissolved	Oxidation Reduction				Ammonia				Total Organi
	Water Bearing	Screened	(TOC) Elevation	Date	below	Elevation	Sampled	PCE	TCE	· · ·	Chloride	pН	Temp	Conductivity	Oxygen	Potential	Dissolved	Sulfate	Chloride	as N	Methane	Ethane	Ethene	Carbo
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Вy	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/l
				10/28/16	5.33	36.46	Kane	3,300	210	200	<20	6.20	15.9	266.0										
				9/19/18	6.74	35.05	Kane	4,910	152	117	<0.20	6.05	15.3	282.0	0.21	204	<100	22.8	16.5	<0.100	2.23	< 0.0162		4.7
				12/27/18	4.23	37.56	Kane	6,410	229	199	<10.0	5.95	45.4	315.5	0.09	52.4	<100	19.5	2.85	<0.100	<0.00863	< 0.0162	< 0.0151	1.36
				6/4/19 7/24/19	6.11 6.83	35.68 34.96	Kane Kane	10,000 9,200	390 390	260 340	<100 <5.0	6.25 5.93	15.1 16.9	337.4 324.0	0.12 0.24	20.9 -56.6	<56 <56	23 21	14 13	<0.05 <0.050	5 5	<0.25 <0.0005	<0.25 <0.0005	1.50
				10/17/19		34.77	Kane	7,700	410	360	<5.0	5.83	15.1	292.1	0.12	173.5	100	18	13	< 0.050	5	< 0.0005	< 0.0005	1.30
				1/22/20	6.05	35.74	Kane	4,000	280	410	<2.0	6.21	12.3	430.0	0.11	88.9	<56	13	16	<0.050	2.4	< 0.00022	<0.00029	1.20
HZ-MW-16	Shallow	15 to 25		5/28/14			HWA	0.32	<0.20	0.30	<0.20	6.52		451.0	0.16								<u> </u>	
				9/12/14 12/15/14	-		HWA HWA	4.2 0.4	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	7.08 7.01		207.0 235.0	1.23 0.57								<b> </b>	
				3/19/15	-		HWA	0.4	<0.20	<0.20 <b>0.24</b>	<0.20	6.59		326.0	0.57 NA						<0.50		<u> </u>	
				11/28/16	4.53		Kane	0.34	<0.20	<0.20	<0.20	6.78		167.0							0.00		<u> </u>	
				9/24/18	6.23		Kane	<1.00	<0.50	<1.00	<0.20	6.62	16.6	131.0	1.85	83.4	<100	9.78	2.83	<0.100	< 0.00863	< 0.0162	<0.0151	1.58
				1/3/19	5.56		Kane	1.39	< 0.50	<1.00	<0.20	6.09		220.2	0.66	63.5	<100	15.2	8.5	<0.100	< 0.00863	< 0.0162	<0.0151	0.645
HZ-MW-17	Shallow	10 to 20	39 567	6/5/19 6/0/14	5.8			2.00	<b>0.30</b>	<b>0.61</b>	<0.20	6.46	15.0	222.3 594.0	0.29	26.7	<56	16	7.6	<0.050	<0.001	<0.0005	<0.0005	<1.0
172-1717-17	Shallow	10 to 20	38.567	6/9/14 9/12/14	-		HWA HWA	<0.20 <b>2.0</b>	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	6.61 6.94		345.0	0.15 0.89								<u> </u>	
				12/16/14	1		HWA	0.5	<0.20	<0.20	<0.20	6.71		309.0	1.55					L			<b> </b>	1
				3/19/15	1		HWA	<0.20	<0.20	<0.20	<0.20	6.96		434.0	NA									
				9/26/16	8.90	29.67	Kane	<0.20	<0.20	<0.20	<0.20	6.73		230.0									<u> </u>	
				10/27/16 7/24/18	6.61 7.45	31.96 31.12	Kane Kane	<0.20 <1.00	<0.20 <0.50	<0.20 <1.00	<0.20 <0.20	6.89 7.17	14.9 16.1	238.0 250.0	0.41								<u> </u>	
				9/12/18	7.43	30.67	Kane	<1.00	< 0.50	<1.00	<0.20	6.97	16.2	267.0	0.41	39.9	2,540	16.9	7	<0.100	< 0.00863	< 0.0162	<0.0151	2.54
				12/6/18	7.68	30.89	Kane	<1.00	< 0.50	<1.00	<0.20	6.65	14.9	297.5	0.32	29.1	2,060	23.7	9.1	< 0.100	< 0.00863	< 0.0162	< 0.0151	2.28
				5/31/19	7.08	31.49	Kane	<0.20	<0.20	<0.20	<0.20	6.91	15.2	312.3	0.11	-30.1	3,600	16	9	0.081	0.25	<0.015	<0.015	1.1
HZ-MW-18	Shallow	7.5 to 17.5		6/10/14			HWA	<0.20	<0.20	<0.20	<0.20	6.38		1901.0	0.14									
HZ-MW-19	Shallow	5 to 15	42.177	5/30/14			HWA	0.97	0.94	0.40	<0.20	6.38		1210.0	0.10									1
				6/9/14			HWA	0.28	0.67	1.1	<0.20	6.26		1213.0	0.13									
				9/12/14	_		HWA	3.3	0.76	0.67	<0.20	6.37		675.0	0.50								<b> </b>	
				12/16/14 3/19/15			HWA HWA	<b>1.0</b> < 0.20	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	6.75 6.33		301.0 376.0	0.42 NA						100		<b> </b>	
				8/6/15	+		HWA	-0.20	-0.20	-0.20	-0.20	6.18		513.0	0.00						100			
				11/11/15	7.01	35.22	HWA	0.6	0.77	1.1	<0.20	6.03		623.0	0.00	-13.9		25			11	<0.50	<0.50	8.4
				9/26/16	7.73	34.45	Kane	0.59	0.54	0.48	<0.20	6.29		438.0										
				10/31/16		37.40	Kane	< 0.20	<0.20	< 0.20	<0.20	6.11	14.2	174.0	0.00								<b> </b>	
				7/24/18 9/7/18	7.17	35.01 34.46	Kane Kane	<1.00 <1.00	<0.50 <b>0.574</b>	<1.00 <1.00	<0.20 <0.20	6.56 6.34	17.3 18.0	335.0 504.0	0.00	102.7	1,460	61.5	5.2	<0.100	< 0.00863	<0.0162	<0.0151	8.59
				12/7/18		35.86	Kane	<1.00	< 0.50	<1.00	<0.20			376.6	0.12	64.7	2,500	24.5	2.44	<0.100	0.0158	< 0.0162		
				5/30/19		35.93	Kane	0.21	0.25	<0.20	<0.20	6.25	18.1	424.6	0.15	34.5	240	28	3.9	<0.050	0.019	<0.001		3.5
HZ-MW-20	Shallow	5 to 15		6/9/14			HWA	<0.20	< 0.20	<0.20	<0.20	6.79		1914.0	0.28								<u> </u>	
				9/13/14	-		HWA HWA	1.3 0.41	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	7.09 6.72		1018.0 851.0	0.72 0.44								<u> </u>	
				12/16/14 3/19/15	-		HWA	< 0.20	<0.20	<0.20	<0.20	6.91		1139.0	0.44 NA								<u> </u>	
HZ-MW-21	Shallow	6 to 16	39.517	9/13/16		32.38	Kane	<0.20	<0.20	<0.20	<0.20	6.55		509.0										
				10/31/16	5.90	33.62	Kane	<0.20	<0.20	<0.20	<0.20	6.31		528.0										
				7/23/18		32.62	Kane	<1.00	< 0.50	<1.00	<0.20	6.77	17.6	576.0	0.19								L	
				9/13/18	7.37	32.15	Kane	<1.00	< 0.50	<1.00	< 0.20	6.65	17.9	700.0	0.12	71.6	739	35.6	7.12	0.169	0.0386	<0.0162		18.3
				12/10/18 5/23/19		32.83 32.97	Kane Kane	<1.00 <0.20	<0.50 <0.20	<1.00 <0.20	<0.20 <0.20	6.43 6.60	14.1 15.3	120.9 500.7	0.71 0.11	<u>71.7</u> -0.1	<100 550	8.51 21	1.4 8.1	0.125	<0.00863 0.14	<0.0162 0.00093		1.94 14
HZ-MW-22	Shallow	5 to 15	40.827	9/14/16		34.06	Kane	0.67	0.62	0.24	<0.20	6.13		303.0	5.11	v. i			<u> </u>	5.20	<b>3</b> .17	0.00000	0.0000	1-1-
				10/28/16	4.85	35.98	Kane	0.46	<0.20	<0.20	<0.20	6.52	16.5	318.0										
				7/23/18	6.45	34.38	Kane	1.52	0.849	<1.00	<0.20	6.47		316.0	0.68	oc =		00.0		.0.100				
				9/7/18		33.73	Kane	1.44	1.33	1.07	<0.20	6.25	18.9	338.0	0.51	98.7	<100	20.3	14.1		< 0.00863		<0.0151	5.38
				12/21/18 5/21/19		35.48 35.11	Kane Kane	1.46 1.2	0.956	<1.00 <b>0.51</b>	<0.20 <0.20	6.16 6.37		392.0 413.6	0.98 0.50	<u>32.7</u> -19.1	<100 <56	25.5 31	10.2 8.1	<0.100 <0.050	<0.00863 0.004		<0.0051	2.52 2.3
HZ-MW-23	Intermediate	28 to 38	41.677	9/14/16		33.47	Kane	2.4	< 0.20	0.41	<0.20	6.55	1 1.0	378.0	0.00	10.1		<u> </u>	<u>.</u>	0.000	0.004			2.0
				10/31/16	6.80	34.88	Kane	2.3	<0.20	0.33	<0.20	6.77		345.0										
				9/7/18	8.26	33.42	Kane	<1.00	<0.500	<1.00	<0.20	6.84		401.0	0.07	24.8	3,800	13.2	11.1	<0.100	0.527		<0.0151	
				12/19/18	7.40	34.28	Kane	<1.00	<0.50	<1.00	<0.20	6.53	14.2	416.2	0.06	7.5	1,200	16.6	11.3	<0.100	0.273	<0.0162	<0.0151	3.14

					Depth to											Oxidation								Total
	Well Type and		Top of Casing		Water (ft	GW				(cis)	Vinyl				Dissolved	Reduction				Ammonia				Organic
	Water Bearing	Screened	(TOC) Elevation		below	Elevation	Sampled	PCE	TCE	1,2-DCE	Chloride	рН	Temp	Conductivity	Oxygen	Potential	Dissolved	Sulfate		as N	Methane	Ethane	Ethene	Carbon
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
				5/30/19	7.17	34.51	Kane	<0.20	<0.20	<0.20	<0.20	6.74		358.2	0.20	11.5	7,500	13	11	<0.050	0.75	<0.05	<0.05	3.4
				7/30/19	7.98	33.70	Kane	< 0.20	< 0.20	< 0.20	< 0.020	6.65	18.6	281.2	0.22	-79.8	4,900	11	6.8	< 0.050	0.21	< 0.0005	< 0.0005	3.4
				10/24/19	8.61 6.69	33.07 34.99	Kane Kane	<0.20 <0.20	<0.20 <0.20	<0.20 <0.02	<0.020 0.039	6.40 6.55	14.9 13.2	290.2 502.7	0.17 0.20	-5 13.5	8,700 10,000	8.1 <5.0	7.1 9.4	<0.050 <0.050	0.92	<0.0005 <0.00022	<0.0005 <0.00029	24 42
HZ-MW-24	Intermediate	25 to 35	40.997	9/14/16	7.20	33.80	Kane	4.9	<0.20 <b>2.4</b>	<0.02 <b>21</b>	0.035	6.47	15.2	356.0	0.20	15.5	10,000	×3.0	5.4	~0.050	1.5	<b>\0.00022</b>	<b>~0.0002</b> 3	42
				10/27/16	5.66	35.34	Kane	6.7	0.8	12	0.6	6.69	17.1	316.0										
				9/18/18	6.92	34.08	Kane	4.48	2.3	14.8	0.577	6.31	16.2	286.0	0.22	99.2	<100	26.1	8.28	<0.100	0.0181	<0.0162	<0.0151	3.98
				12/10/18	6.04	34.96	Kane	2.79	0.908	5.38	<0.20	6.26	15.0	273.7	0.08	-1.4	828	10.3	7.18	<0.100	< 0.00863	< 0.0162	< 0.0151	7.02
				5/31/19 7/17/19	6.06 7.10	34.94 33.90	Kane Kane	2.0 2.7	0.92	21 16	0.77 0.58	6.61 6.39	<u>15.3</u> 17.1	533.7 557.4	0.13	-11.7 -167.7	8,500 15,000	<5.0 7.8	13 13	0.19 0.39	5.4 6.3	<0.25 <0.0005	<0.25 <0.0005	3.5 3.8
				10/24/19	6.82	34.18	Kane	<0.40	< 0.40	93	0.76	6.21	16.0	442.3	0.16	107.7	20,000	<5.0	13	1.1	9.7	< 0.0005	<0.0005	4.7
				1/27/20	5.71	35.29	Kane	2.2	1.3	150	3.2	6.47	13.0	452.3	0.13	35.3	14,000	<5.0	15	2.5	9.5	< 0.00022	< 0.00029	
HZ-MW-25	Deep	44.33 to 54.33	41.907	9/14/16	8.17	33.74	Kane	6.4	<0.20	<0.20	<0.20	6.71		254.0										
				10/28/16	7.02	34.89	Kane	1.2	< 0.20	< 0.20	< 0.20	6.46		237.0	0.45									<u> </u>
				7/19/18 9/11/18	8.00 8.41	33.91 33.50	Kane Kane	<1.00 <1.00	<0.50 <0.50	<1.00 <1.00	<0.20 <0.20	6.67 6.38	14.7 15.3	248.0 273.0	0.45	102.8	201	9.38	25.8	<0.100	0.00931	<0.0162	<0.0151	2.72
				12/4/18	7.35	34.56	Kane	3.67	1.36	<1.00	<0.20	6.11	14.7	299.6	0.00	48.7	5.900	9.30	23.0	<0.100	< 0.00863	<0.0162	<0.0151	4.34
				5/30/19	7.60	34.31	Kane	<0.20	<0.20	< 0.20	<0.20	6.36		259.6	0.32	21.3	330	12	22	< 0.050	0.056	< 0.005	< 0.005	<1.0
HZ-MW-26	Intermediate	25 to 35	40.692	9/14/16	7.55	33.14	Kane	99	3.5	4.7	<0.40	6.71		267.0										
				10/28/16	6.26	34.43	Kane	3.3	< 0.20	0.25	<0.20	6.74	16.0	265.0	0.01									<u> </u>
				7/23/18 9/17/18	7.36	33.33	Kane	11.9	<0.50	2.01	<0.20	6.98	16.4 15.0	284.0	0.31 0.37	187	<100	24.0	7.46	<0.100	<0.00863	<0.0162	<0.0151	3.54
				12/4/18	6.83 7.23	33.86 33.46	Kane Kane	7.12 6.21	<0.50 <0.50	1.3 1.03	<0.20 <0.20	6.55 6.38	14.2	316.0 334.2	0.37	75.6	<100	24.9 25.3	8.08	<0.100 <0.100	< 0.00863	<0.0162	<0.0151	2.3
				5/30/19	6.85	33.84	Kane	9.7	<0.20	1.4	<0.20	6.70	16.6	329.9	0.18	17	<56	28	9.3	< 0.050	0.0042	< 0.0005	< 0.0005	<1.0
				7/30/19	7.34	33.35	Kane	5.0	<0.20	1.0	0.053	6.42	16.5	327.9	0.21	-96.7	<56	23	9.3	0.063	0.01	<0.0005	<0.0005	<1.0
				10/16/19	7.91	32.78	Kane	2.8	<0.20	0.53	0.055	6.61	15.1	322.7	0.03	152.3	<56	24	11	<0.050	0.022	<0.0005	<0.0005	<1.0
	Deen	AE to EE	41.597	1/24/20	6.86	33.83	Kane	1.5	< 0.20	0.42	0.041	6.55	13.1	334.4 227.0	0.10	36.3	<56	23	14	<0.050	0.035	<0.00022	0.00052	<1.0
HZ-MW-27	Deep	45 to 55	41.597	9/14/16 10/28/16	8.00 6.55	33.60 35.05	Kane Kane	1.6 0.84	<0.20 <0.20	<b>0.34</b> <0.20	<0.20 <0.20	6.80 6.51		208.0										+
				7/13/18	7.35	34.25	Kane	2.24	< 0.50	1.07	<0.20	6.77	15.1	215.0	0.40									+
				9/18/18	7.73	33.87	Kane	1.75	<0.50	<1.00	<0.20	6.24	15.1	222.0	0.34	62.8	<100	15.3	8.08	<0.100	0.0449	<0.0162	<0.0151	4.12
				12/7/18	8.18	33.42	Kane	<1.00	< 0.50	<1.00	<0.20	6.12	14.5	229.6	0.13	49.8	835	21.1	8.36	< 0.100	0.0636	< 0.0162	<0.0151	1.28
HZ-MW-28	Intermediate	25 to 25	38.744	5/30/19	7.30 5.90	34.30 32.84	Kane Kane	<0.20 0.96	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	6.51 6.87	15.8 15.3	223.5 343.0	0.22	18.6	1,200	18	8.7	<0.050	0.093	<0.005	<0.005	1.4
	Intermediate	25 to 35	30.744	7/24/18	6.65	32.04	Kane	<1.00	< 0.20	<1.00	<0.20	7.08	15.6	333.0	0.42									
				9/13/18	7.00	31.74	Kane	<1.00	< 0.50	<1.00	<0.20	6.86	15.1	368.0	0.13	35.8	420	17.6	16	<0.100	0.0191	<0.0162	<0.0151	2.29
				12/6/18	6.40	32.34	Kane	<1.00	<0.50	<1.00	<0.20	6.58	14.2	429.8	0.28	56.7	<100	37.6	14	<0.100	0.0101	<0.0162	<0.0151	2.77
			10.000	5/31/19	6.35	32.39	Kane	<0.20	<0.20	<0.20	<0.20	6.75	14.6	416.1	0.14	-7.1	<56	45	16	<0.050	0.053	< 0.003	<0.003	1.4
HZ-MW-29	Intermediate	25 to 35	40.309	10/27/16 7/23/18	6.03 6.75	34.28 33.56	Kane Kane	85 54.8	9.0 4.2	100 33.2	6.6 1.31	6.60 6.66	<u>15.7</u> 16.9	271.0 241.0	0.07									<u> </u>
				9/11/18	7.11	33.20	Kane	36.6	3.48	23.7	<0.20	6.47	15.3	254.0	0.07	95.2	<100	16	10.9	<0.100	< 0.00863	<0.0162	<0.0151	2.73
				12/10/18		34.63	Kane	13.6	4.06	11.4	<0.20	6.18		330.7	0.07	3.5	2,140	17.9	17.2	<0.100	< 0.00863		<0.0151	2.68
				5/31/19	6.29	34.02	Kane	1.4	0.6	32	0.26	6.52		705.0	0.35	-2.3	10,000	<5.0	18	0.65	3.9	<0.25	<0.25	52
				7/17/19		33.28	Kane	1.2	0.58	32	0.47	6.20	15.9	627.0	0.09	-93.7	9,300	<5.0	16	0.79	9.5	< 0.0005	< 0.0005	
				10/24/19 1/27/20	7.98 6.41	32.33 33.90	Kane Kane	<1.0 <1.0	<1.0 <b>1.5</b>	100 100	0.94 1.5	6.15 6.33	15.2 13.4	466.6 579.5	0.14 0.17	-9.6 42.1	9,500 12,000	<5.0 6.9	13 14	1.6 3.2	9.9 8.6	<0.0005 <0.00022	<0.0005 <0.00029	2.1 1.8
HZ-MW-30	Deep	40 to 50		11/28/16		33.90	Kane	<0.20	< 0.20	< 0.20	< 0.20	8.01	13.4	418.0	0.17	42.1	12,000	0.9	14	3.2	0.0	<b>\0.00022</b>	<0.00029	1.0
	Doop	10 10 00		8/27/18	8.60		Kane	<1.00	< 0.50	<1.00	<0.20	7.71	16.9	235.0										
				9/20/18			Kane	<1.00	<0.50	<1.00	<0.20	7.71	15.0	273.0	0.25	-140	162	0.506	3.51	0.937	0.426	<0.0162	<0.0151	2.1
				12/18/18		]	Kane	<1.00	< 0.50	<1.00	< 0.20	7.60	13.9	281.5	0.05	-2.4	247	< 0.300	3.62	0.956	0.307	< 0.0162	< 0.0151	2.15
HZ-MW-31	Shallow	15 to 25		5/19/19			Kane	< 0.20	< 0.20	<0.20	< 0.20	7.68		260.5	0.17	22.8	170	<5.0	4.8	0.61	0.91	<0.05	<0.05	1.8
	Shallow	101020		11/28/16 8/27/18	8.42 9.55		Kane Kane	<0.20 <1.00	<0.20 <0.50	<0.20 <1.00	<0.20 <0.20	6.80 6.52	16.3	325.0 294.0								+		+
				9/20/18			Kane	<1.00	< 0.50	<1.00	<0.20	6.46	15.5	321.0	0.43	-45.4	8,800	7.69	9.3	0.33	0.0618	<0.0162	<0.0151	5.41
				12/18/18			Kane	<1.00	<0.50	<1.00	<0.20	6.33	14.2	331.1	0.07	2	1,880	8.74	8.76	0.297	0.151	< 0.0162	<0.0151	4.99
				5/29/19			Kane	0.78	<0.20	<0.20	<0.20	6.58	15.0	320.7	0.23	19.8	20,000	<5.0	8.7	0.26	0.34	<0.025	<0.025	4.6
				7/24/19			Kane	2.5	< 0.20	0.69	0.048	6.33	16.9	295.9	0.21	-64	19,000	<5.0	8.3	0.27	0.62	<0.0005	< 0.0005	
				10/25/19 1/28/20			Kane Kane	<0.20 <0.20	<0.20 <0.20	<0.20 <0.20	0.048	6.22 6.27	15.1 12.9	232.9 298.6	0.10	23 69	19,000 18,000	<5.0 <5.0	6.3 6.7	0.3 0.29	0.9	<0.0005 <0.00022	<0.0005 <0.00029	
	1			1/20/20	0.75			NU.20	<0.20	NU.20	0.004	0.21	12.3	200.0	0.24	08	10,000	~J.U	0.1	0.23	0.70	~U.UUUZZ	~0.000Z9	7.0

### Table 1 **Bothell Service Center Simon Son** Groundwater Analytical Results

	Well Type and Water Bearing	Screened	Top of Casing (TOC) Elevation	Date	Depth to Water (ft below	GW Elevation	Sampled	PCE	TCE	(cis) 1,2-DCE	Vinyl Chloride	pH	Temp	Conductivity	Dissolved Oxygen	Oxidation Reduction Potential	Dissolved	Sulfate	Chloride	Ammonia as N	Methane	Ethane	Ethene	Total Organi Carbo
Well	Zone	Depth, (ft bgs)	(feet)*	Sampled	TOC)	(feet)	Ву	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(units)	(°C)	(µS)	(mg/L)	(mV)	Iron (ug/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L
				9/20/18	9.46		Kane	<1.00	<0.50	<1.00	<0.20	6.50	14.8	355.0	0.20	-68.3	13,500	3.07	13.3	0.402	0.147	<0.0162	<0.0151	6.79
				12/19/18	8.70		Kane	<1.00	< 0.50	<1.00	< 0.20	6.28	13.2	377.0	0.14	-5	234	5.93	13.6	0.356	0.121	< 0.0162	<0.0151	6.56 5.9
HZ-MW-33	Intermediate	25 to 35		5/29/19 11/28/16	8.25 6.33		Kane Kane	<0.20 <0.20	<0.20	<0.20 <b>0.48</b>	<0.20 <0.20	6.56 7.39		377.1 242.0	0.46	25.6	27,000	<5.0	13	0.39	0.27	<0.015	<0.015	5.9
112-10100-00	Internetiate	2010 00		7/24/18	6.87		Kane	<1.00	<0.20	<1.00	<0.20	7.02	17.0	242.0	0.00									<b> </b>
				9/12/18	7.35		Kane	<1.00	< 0.50	1.11	<0.20	6.84	15.2	237.0	0.25	103.4	<100	14.2	6.54	<0.100	< 0.00863	<0.0162	<0.0151	2.08
				12/6/18	7.19		Kane	<1.00	<0.50	2.06	0.303	6.55	14.1	259.5	0.21	48.1	<100	19.1	7.87	<0.100	< 0.00863	<0.0162	<0.0151	2.36
				5/31/19	6.82		Kane	0.51	<0.20	1.7	<0.20	6.77	15.6	271.0	0.14	-12.5	<56	16	7.3	<0.050	0.0027	<0.0005	<0.0005	<1.(
HZ-MW-34	Shallow	15 to 25		11/28/16	4.81		Kane	7.2	14	44	3.1	6.64	47.4	272.0	0.00	450	-100	477	10.4	-0.100	0.0101	10.0100	10.0454	2.0
				9/17/18 12/7/18	6.68 5.77		Kane Kane	8.05 4.63	16.5 12.7	40.6	<b>2.97</b> <0.20	6.12 6.18	17.1 15.9	265.0 383.7	0.32	<u>152</u> 0.9	<100 5,750	17.7 7.8	10.4 14.2	<0.100 <0.100	0.0191 <0.00863	<0.0162 <0.0162	<0.0151 <0.0151	3.8 3.9
				5/31/19	5.88		Kane	0.83	3.3	24	<0.20	6.46	14.7	550.0	0.10	-17.2	10,000	5.7	14.2	<0.050	1.1	<0.0102	<0.0151	42
				7/17/19	6.41		Kane	1.4	3.3	20	0.28	6.24	17.3	508.5	0.08	-158.7	11,000	5.2	13	< 0.050	3.1	<0.00050		24
				10/23/19			Kane	<1.0	<1.0	110	0.97	6.25	16.2	258.4	0.07	24.7	4,900	17	9	0.69	7.7	< 0.0005	< 0.0005	5.8
				1/27/20	5.22		Kane	<1.0	2.6	120	31	6.25	14.0	570.1	0.14	48.8	6,200	11	14	0.67	11	< 0.00022	<0.00029	2.3
S-MW-1	Shallow	5.5 to 15.5	43.527	9/20/16	6.96	36.57	Kane	150	<1.0	<1.0	<1.0	6.48		303.0										
				10/24/16	4.64	38.89	Kane	17	< 0.20	<0.20	<0.20	6.74	16.5	140.0										
				10/23/18	6.80 6.00	36.73	Kane	9.1	< 0.50	<1.0	<0.20	6.59	14.4	161.0	3.46	F	<56	50	4.6	<0.050	<0.001	<0.0005	<0.0005	1
				6/6/19 7/24/19	6.61	37.53 36.92	Kane Kane	<u>8.9</u> 6.5	<0.20	<0.20 <0.20	<0.20	6.25 6.01	14.4 18.8	256.6 200.8	3.46	5 -74.5	<56	50 26	4.6 4.8	<0.050 0.15	<0.001	<0.0005	<0.0005	1.4
				10/23/19	6.18	37.35	Kane	7.3	<0.20	<0.20	<0.020	5.92	15.4	162.8	3.82	164.3	<56	23	4.2	< 0.050	<0.001	<0.0005	<0.0005	<1
				1/21/20	4.78	38.75	Kane	3.4	<0.20	<0.20	<0.020	6.32	11.0	236.2	4.38	105.9	<56	42	3.7	< 0.050	< 0.00055	< 0.00022	< 0.00029	<1
S-MW-2	Shallow	5 to 15	42.297	9/20/16	6.21	36.09	Kane	47	7	26	<0.40	6.41		339.0										
				10/24/16	3.95	38.35	Kane	35	20	69	5.1	6.83	17.8	349.0										
				9/21/18	6.03	36.27	Kane	10.3	4.74	3.66	<0.20	6.80	18.4	246.0	0.12	105.6	<100	19.3	4.29	<0.100	< 0.00863	< 0.0162	<0.0151	2.2
				1/2/19	4.40	37.90	Kane	7.55	4.2	5.02	<0.20	6.45	45.0	278.4	0.11	34.7	<100	19	4.74	<0.100	< 0.00863	< 0.0162	< 0.0151	1.0
				6/6/19 7/24/19	5.14 5.34	37.16 36.96	Kane Kane	<u>5.8</u> 6.2	3.8 3.8	3.2 4.1	<0.20 <b>0.11</b>	6.68 6.18	15.6 18.5	363.7 338.0	0.25 0.14	0.5	<56 <56	<u>35</u> 21	6.6 7.4	<0.050 <0.050	0.033	<0.0025 <0.0005	<0.0025 <0.0005	1.
				10/17/19		37.04	Kane	5.8	3.7	4.2	0.11	6.34	17.6	245.9	0.14	193.1	<56	26	6.9	< 0.050	0.027	<0.0005	<0.0005	1.
S-MW-3	Intermediate	25 to 35	42.807	9/16/16	6.62	36.19	Kane	0.44	< 0.20	<0.20	<0.20	5.79		116.0	0.1.0			20	0.0	0.000	0.020	0.0000	0.0000	
				10/31/16	4.93	37.88	Kane	1.7	<0.20	<0.20	<0.20	6.04	15.9	116.0										
				9/21/18	6.51	36.30	Kane	3.8	<0.50	<1.00	<0.20	5.95	14.8	95.0	0.24	80.3	<100	13.7	2.82	<0.100	0.0652	<0.0162	<0.0151	1.2
				1/3/19	5.17	37.64	Kane	2.28	<0.50	<1.00	<0.20	5.57		103.2	0.14	49	<100	15	3.63	<0.100	0.0994	<0.0162	<0.0151	0.7
				6/5/19	6.05	36.76	Kane	2.2	< 0.20	<0.20	<0.20	5.88	14.5	113.8	0.19	-9.3	<56	13	3.6	< 0.050	0.49	< 0.025	< 0.025	<1
				7/24/19	6.75 6.08	36.06 36.73	Kane Kane	<u>2.8</u> 3.7	<0.20	<0.20 <0.20	<0.020 <0.020	5.31 5.20	16.5 15	108.6 84.7	0.14 0.14	<u>-177.5</u> 218.6	<56 <56	<u>12</u> 13	3.9 4.4	<0.050 <0.050	0.47	<0.0005 <0.0005	<0.0005 <0.0005	<1 <1
S-MW-4	Deep	40 to 50	42.367	9/14/16	6.32	36.05	Kane	<0.20	<0.20	<0.20	<0.20	6.74	15	206.0	0.14	210.0	<b>~</b> 30	15	4.4	<0.030	0.51	<0.0005	<0.0003	
0-1010-4	Бсср	40 10 50	42.007	10/28/16	4.93	37.44	Kane	0.66	<0.20	<0.20	<0.20	6.44		191.0										<b> </b>
				7/19/18	6.23	36.14	Kane	1.25	< 0.50	<1.00	<0.20	6.85	14.6	183.0	0.46									
				9/21/18	6.37	36.00	Kane	<1.00	<0.50	<1.00	<0.20	6.58	15.4	200.0	0.08	95.8	621	15	6.13	0.133	0.0092	<0.0162	<0.0151	2.3
				1/2/19	5.90	36.47	Kane	<1.00	<0.50	<1.00	<0.20	6.15		202.9	0.09	56.9	449	14.5	6.18	<0.100	0.0132	<0.0162	<0.0151	1.
				6/5/19	6.04	36.33	Kane	0.56	<0.20	<0.20	<0.20	6.17	14.7	153.2	0.15	-4.6	410	15	4.5	<0.050	0.084	<0.005	<0.005	<1
S-MW-5	Shallow	15 to 25	41.357	10/28/16		36.80	Kane	340	<4.0	<4.0	<4.0	6.68	18.0	259.0	0.47	40.5	-100	10.0	0.05	10,400	10,00000	10.0400	10.0454	
				9/24/18 12/27/18	6.07 3.90	35.29 37.46	Kane Kane	<u>530</u> 1,690	<5.0 <b>6.03</b>	<10 <b>16.7</b>	<2.0 <0.20	6.38 6.31	16.2	164.0 235.5	2.17 0.98	48.5 58.2	<100 <100	12.6 21.6	6.05 6.56	<0.100 <0.100	<0.00863 <0.00863	<0.0162 <0.0162		1.
				6/5/19	5.20	36.16	Kane	880	<10	<10.7	<10	6.57	15.2	205.1	1.81	7.3	<56	19	5.9	<0.050	< 0.001	<0.0005		
				7/24/19	5.72	35.64	Kane	530	<4.0	<4.0	<0.40	6.22	17.6	169.8	1.93	-76.1	<56	15	7.5	< 0.050	< 0.001	< 0.0005		
				10/17/19		35.48	Kane	820	<4.0	<4.0	<0.40	6.05	15.8	159.8	1.78	198.6	<56	17	5.3	< 0.050	< 0.001	< 0.0005		_
				1/21/20	5.00	36.36	Kane	780	<4.0	<4.0	<0.40	6.65	12.8	195.6	1.30	74.8	<56	22	6.1	<0.050		<0.00022		
S-MW-6	Shallow	4 to 14		1/3/17	5.51		Kane	<0.20	<0.20	<0.20	<0.20	6.23		155.0										
				1/11/19	5.54		Kane	<1.00	< 0.50	<1.00	<0.20	6.11		129.0										<b> </b>
				6/7/19	7.57		Kane	< 0.20	< 0.20	<0.20	< 0.20	6.1	13.5	182.8	4.90	8.7	<56	29	7.3	<0.050	0.0016	<0.0005	<0.0005	<`
							Cleanup Level <sup>1</sup>	5.0	5.0	16	0.2						11 200							──
	tion was used to cal	culate GW alovet		ampling of		IVIELNOO B (	Cleanup Level <sup>2</sup>		I	16							11,200		l					
tes: CE – Tetrachlo CE – Trichloro	proethene			anping ev	onto.																1	1	1	

1,1-DCE - 1,1-Dichloroethene

(cis) 1,2-DCE - (cis) 1,2-Dichloroethene

### Table 1 Bothell Service Center Simon Son Groundwater Analytical Results

Well	Well Type and Water Bearing Zone	Screened Depth, (ft bgs)	Top of Casing (TOC) Elevation (feet)*			GW Elevation (feet)	Sampled By	PCE (µg/L)	TCE (µg/L)	(cis) 1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	pH (units)		Conductivity (µS)		Oxidation Reduction Potential (mV)	Dissolved Iron (ug/L)		Ammonia as N (mg/L)	Methane (mg/L)	Ethane (mg/L)	Total Organic Carbon (mg/L)
· · ·	- (trans) 1,2-Dichloro													•	:			:				
	lyzed or not available	e																				
Bold – Analyte d	red – Analyte exceed																					
	ction limit exceeds re																					
	detected at listed rep	•																				
mg/L – microgra		<b>3</b>																				
MV – Millivolts																						
ES – Estimated of	concentration becau	se analyte conce	ntration was outsi	de of lab in	strument c	alibration ra	inge															
DNAPL – Dense	Non-Aqueous Phas	e Liquid																				
,	WAC 173-340-900																					
•	Ecology CLARC gro	ound water data ta	able (https://fortres	s.wa.gov/e	ecy/clarc/Fo	ocusSheets	/Groundwater%	620Methods	%20B%20a	and%20A%	620and%2	0ARARs	s.pdf)									
NA – Not Applica																						
	- Well was not sar																					
* HWA TOC elevat	tion was used to cale	culate GW elevati	on during HWA sa	ampling ev	ents.																	