Attachment 19.A

State of Washington
Department of Fish and Wildlife
Mailing Address: PO Box 43200, Olympia, WA 98504-3200, (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia WA

July 26, 2021

Nicole Floyd
Principal Planner, City of Olympia
601 4th Ave E. Olympia, WA 98501

Subject: West Bay Yards

Nicole,

The Washington Department of Fish and Wildlife (WDFW) has reviewed the provided project materials and offers the following comments at this time. Other comments may be offered in the future.

Due to potential habitat and fish life impacts in waters of the state, a Hydraulic Project Approval (HPA) permit from Washington Department of Fish and Wildlife (WDFW) will be required for the proposed work. Part of the HPA process will be to review the proposed imported beach sediment specifications and ensure that suitable spawning material for forage fish is provided. Regarding regulatory needs, we encourage the applicant to reach out early to begin this conversation with WDFW.

WDFW is required to follow our minimization sequence of avoiding, minimizing, rectifying, reducing, compensating, and monitoring for the impacts of hydraulic projects. We suggest that the applicant prepares an erosion energetics report to estimate the lifespan of the imported fill on the beach. It appears that an armored barb is proposed on the south end of the project, likely designed to retain the imported material. It will be important to understand how the imported beach is expected to behave (slope, elevation, composition etc.) over time, with and without this barb. An erosion energetics report would be useful to ensure the applicant is pursuing the least impactful alternative.

Because of the estimated 15-year project phasing, the applicant will need to work with WDFW to create a monitoring and performance contract as part of HPA permitting to ensure that the project meets its restoration objectives over time.

Thank you for the opportunity to review these materials and please let us know if we can be of further assistance.

Sincerely,

Noll Steinweg
Habitat Biologist
Washington Department of Fish and Wildlife
Noll.Steinweg@dfw.wa.gov

Attachment 19.A

From: Larson, Andy <LarsonA@wsdot.wa.gov>
Sent: Friday, July 23, 2021 2:17 PM
To: Nicole Floyd
Subject: RE: [EXTERNAL] Notices

Hi Nicole,

I did get some comments in from Traffic after I sent the below email to you.

Here are our comments:

- Noticed the amount of square footage mentioned for retail and restaurant space wasn't consistent throughout the documentation. For example, 11,200 square feet initially was listed (under the Background Section) for commercial space and in the Transportation Section this number dropped down to 8,500 square feet.
- Transportation Section: For trip generation, did the information come from ITE Trip Generation Manual? I didn't see a reference listed for this.
- Transportation Section: The commercial space didn't have trip generation information listed in the table during the PM Peak Hour. Is there a reason this was left off?

Andrew Larson, PE
Development Services Engineer
(360) 900-9541

From: Larson, Andy
Sent: Thursday, July 22, 2021 7:27 AM
To: Nicole Floyd <nfloyd@ci.olympia.wa.us>
Subject: FW: [EXTERNAL] Notices

Hi Nicole,

Traffic reviewed this project and as you can see below doesn't have any objections or concerns. So, there are no comments from WSDOT.

Andrew Larson, PE
Development Services Engineer
(360) 900-9541

From: Abarca, Manuel <AbarcaM@wsdot.wa.gov>
Sent: Thursday, July 22, 2021 6:37 AM
To: Larson, Andy <LarsonA@wsdot.wa.gov>
Subject: RE: [EXTERNAL] Notices

Attachment 19.A

Andy,

While the project does generate significant traffic, by the time it distributes to the state systems it doesn't meet the thresholds for evaluation. Traffic Design does not have any objections or concerns that this project will impact the state system.

Manuel

Manuel Abarca, P.E.
Olympic Region Traffic Design Engineer
C:360-764-9231

From: Larson, Andy <LarsonA@wsdot.wa.gov>
Sent: Friday, July 9, 2021 11:25 AM
To: Ott, Sarah <OttSara@wsdot.wa.gov>; Abarca, Manuel <AbarcaM@wsdot.wa.gov>; Izawa, Kumiko <IzawaK@wsdot.wa.gov>; Sawyer, Jeff <SawyerJ@wsdot.wa.gov>; Ward, Carl <WardC@wsdot.wa.gov>
Cc: Perez, Joseph <PerezJ@wsdot.wa.gov>
Subject: FW: [EXTERNAL] Notices

Hi all,

Please take a look at the attached documents and let me know if there are any comments on this project. It is a large (478 Residential Unit) development in Olympia. I would appreciate getting any comments back by July 23rd.

Andrew Larson, PE
Development Services Engineer
(360) 900-9541

Attachment 19.A

From: Rothwell, Rebecca (ECY) <rebs461@ECY.WA.GOV>
Sent: Monday, July 26, 2021 12:08 PM
To: Nicole Floyd
Cc: Brandon Clinton; Steinweg, Noll E (DFW)
Subject: RE: West Bay Yards

Nicole, here are my comments to date. I may have additional comments during the SEPA period.

Ecology recommends that the city consider the project in its entirety for the purposes of SEPA, including both the upland development and the restoration proposal. Likewise, shoreline permits should also encompass the entire project.

This proposal is in the Urban Intensity shoreline environment designation (SED). Development within 100 feet of the ordinary high water mark (OHWM) this SED will require a shoreline conditional use permit (CUP). The site plans show that the OHWM is expected to move farther waterward as a result of the proposed restoration project that includes fill below the OHWM. The upland development layout appears to be based on an expected or targeted new location of the OHWM and has designed the mixed-use development to be largely at or landward of the expected new OHWM. The site plan does show what appear to be impervious walkways, stairs, and a portion of the eastern end of Building 4 within the 100-foot setback based on the new expected OHWM, which would trigger the requirement for a CUP.

The shift in the OHWM based on the proposed restoration project may or may not occur as expected. The OHWM under the Shoreline Management Act is based on indicators on the ground, not an elevation, as shown in the project plans. Further, wave and current action will likely redistribute the placed materials to some extent. Therefore, it will take time for these indicators to develop and for the new OHWM to become evident. Ecology will need to verify the location of the existing and new OHWM.

Although the restoration proposal appears to be based on the City of Olympia West Bay Environmental Restoration Assessment Final Report by Coast & Harbor Engineering, dated February 26, 2016 (hereinafter referred to as "Report"), note that the report contains the following statement: "While limited in its scope and level of detail, this restoration assessment can support future planning and design work along the West Bay shoreline. The environmental methodology, engineering approaches, and cost-estimating protocols are consistent with established restoration practices. Detailed site-specific restoration project designs can build upon the work provided in this assessment" (p. iv).

The details of the applicant's restoration plan will need to be carefully evaluated to determine whether it will accomplish the restoration goals. The volume, extent, and elevation of fill must be based on ecological restoration goals and not a target location of the OHWM in order to accomplish a particular development layout.

The Report states on page 21 that "substrate placement may require permission from WA DNR." It will be important for the City to determine whether permission from DNR is required and whether it is likely to be granted.

The memorandum to Jesse Barham, Andy Haub, and David Hannah – City of Olympia; Scott Steltzner and Jeff Dickison – Squaxin Island Tribe; Alex Smith– Port of Olympia dated October 16, 2015, states the following on page 7:

> A sediment characterization study of Budd Inlet commissioned by the Washington State Department of Ecology (Washington Department of Ecology, 2008) identifies contaminated sites in West and East Bay. Samples taken around West Bay indicate high levels of dioxins throughout all of the former industrial areas, as well as high levels of heavy metals around West Bay Marina. Sediment quality standards for other chemicals of concern were also exceeded in the vicinity of the Hardel and Reliable Steel sites.
>
> A sediment investigation report funded by the Port of Olympia (Port of Olympia, 2014) further identifies contaminated sites throughout West and East Bay. Testing confirmed the presence of high levels of dioxin and other chemicals at several sites within the project area near the Solid Wood Inc. site (part of which is currently occupied by West Bay Park), Reliable Steel Inc., Hardel Mutual Plywood, and West Bay Marina. The high levels of dioxins in these areas all appear to be primarily due to historical presence and use of wood waste burners. In addition to dioxins, relatively high levels of polycyclic aromatic hydrocarbons (PAHs) are present in the marina, and near the Reliable Steel and Hardel Mutual Plywood sites.

Based on this and other information regarding contaminated sediment in West Bay at the subject site, the restoration plan will also need to be designed and implemented in a manner that is consistent with recommendations and requirements from regulatory agencies with authority over such matters, such as the Department of Ecology's Toxics Cleanup Program and the U.S. Environmental Protection Agency.

The City has been proactive in assessing and planning for sea level rise (SLR), as evidenced by its 2019 Olympia Sea Level Rise Response Plan. The City may wish to consider SLR when evaluating the development proposal and the restoration plan.

Rebecca Rothwell, MES, PWS
Wetlands Specialist/Shorelands Technical and Regulatory Lead
WA Department of Ecology | ~~desk: 360-407-7273~~; cell: 360-810-0025

From: Nicole Floyd <nfloyd@ci.olympia.wa.us>
Sent: Thursday, July 8, 2021 2:01 PM
To: Brandon Clinton <brandon.clinton@usace.army.mil>; Rothwell, Rebecca (ECY) <rebs461@ECY.WA.GOV>; Steinweg, Noll E (DFW) <Noll.Steinweg@dfw.wa.gov>
Subject: West Bay Yards

I am working on the West Bay Yards SSDP and would really like your input regarding the proposal. I sent you the NOA, but here is the link to the project website: https://olympiawa.gov/news-and-faq-

s/construction-news/west-bay-yards.aspx. At the bottom of this website are the submittal documents that were provided by the applicant. There are a couple items I am wanting you to pay specific attention to as you review any number of those documents:

- Are there issues that may arise from this conceptual plan related to your codes/regulations that the applicant should be thinking about now?
- The 15 year phasing plan – will that work with your codes/regulations.
- The restoration work (waterward of OHWM). Its being done in two phases over 15 years. It appears to be converting aquatic land to upland area. I believe this approach is being taken as a way to cap contamination, retain the rip-rap stabilization, and create a more natural shoreline area. Does this work from other jurisdictional perspectives?
- Stormwater – this project is in the City's flow control exempt area (treatment is required), does this work from other jurisdictional perspectives?
- Other – are there other issues you see that need to be addressed?

I am trying to get comments wrapped up by the end of the month, a SEPA determination has not yet been made. I am happy to set up a meeting to discuss once you have had time to look these plans over. It is a very high profile project in Olympia and I want to make sure the proverbial ducks are in a row. Please forward to anyone within your agency…or another agency that you think might have regulatory insight.

I really appreciate your help!

Nicole Floyd, AICP

Principal Planner|City of Olympia
601 4th Ave E.|Olympia, WA 98501
Ph: 360.570.3768|Fax: 360.753.8087
Web: olympiawa.gov

Attachment 19.A

Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • 360-407-6300
Call 711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

August 17, 2021

Brandon Smith
West Bay Development Group LLC
8512 Canyon Road East, Suite 101
Puyallup, Washington 98371
brandon@themilestonecompanies.com

Re: Rescission of No Further Action (NFA) Status for the following Site:

- **Site Name:** Hardel Mutual Plywood
- **Site Address:** 1210 W Bay Dr. NW, Olympia, Thurston County, WA 98502
- **Facility/Site ID:** 75128579
- **Cleanup Site ID:** 3704
- **Agreed Order No.:** DE4108
- **ERTS No.:** 701857

Dear Brandon Smith:

The Department of Ecology (Ecology) issued a Satisfaction of Agreed Order letter (Enclosure A) for the Hardel Mutual Plywood (Site) on August 22, 2012. This letter also indicated that no further remedial action was required at the Site. A subsequent notification to Ecology's Environmental Report Tracking System (ERTS) on November 12, 2020, (Enclosure B) provided more information that additional contamination remains at this Site. Contamination was recently identified at concentrations greater than Model Toxics Control Act (MTCA) Method A cleanup screening levels for the following constituents:

- Petroleum hydrocarbons, volatile organic compounds, polycyclic aromatic hydrocarbons, and metals in soil and/or groundwater (Enclosures C & D).

Based on this information, Ecology believes the contamination identified is related to historical releases and rescinds the No Further Action determination contained in the August 22, 2012, Satisfaction of Agreed Order letter. The effective date of the rescission is the date of this letter. Although the terms of Agreed Order DE4108 have been satisfied, further remedial action is necessary at the Site.

Next Steps

Ecology will update its records to reflect that Ecology has rescinded the No Further Action determination for this Site, and the Site will be listed in future publications of the Confirmed and Suspected Contaminated Sites List.[1]

If you have any questions about the rescission or next steps, please contact me at (360) 407-6257 or rebecca.lawson@ecy.wa.gov.

Sincerely,

Rebecca S. Lawson, P.E., LHG
Section Manager
Toxics Cleanup Program
Southwest Regional Office

NMA/tm

Enclosures (4): A – Satisfaction of Agreed Order Letter
B – ERTS 701857
C – Figure
D – Tables

cc: Craig Gronka, Hardel Mutual Plywood

cc by email: Nicole Floyd, City of Olympia, nfloyd@ci.olympia.wa.us
Joel Hecker, Pioneer Technologies, HeckerJ@uspioneer.com
Nicholas Acklam, Ecology nicholas.acklam@ecy.wa.gov
Ecology Site File

[1] Available at: https://apps.ecology.wa.gov/tcpwebreporting/reports/cleanup/contaminated

Enclosure A

Satisfaction of Agreed Order Letter

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Attachment 19.A

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

August 22, 2012

Mr. EJ Piliaris, General Manager
Hardel Mutual Plywood, Inc.
PO Box 540
Chehalis, WA 98532

RE: Satisfaction of Agreed Order No. DE 4108: Hardel Mutual Plywood, FS #75128579

This letter is to notify Hardel Mutual Plywood, Inc. that the above referenced Order has been satisfied under Chapter 173-340 WAC, the Model Toxics Control Act (MTCA), for the above site located at 1210 West Bay Drive NW, Olympia, WA.

As you are aware, the Washington State Department of Ecology (Ecology) has overseen the investigation, remedial activities, and groundwater monitoring that has taken place at the Hardel Mutual Plywood Site located at 1210 West Bay Drive in Olympia, WA. The remedial activities have taken place under an Agreed Order with Ecology (No. DE 4108), and in accordance with the tasks specified in the Cleanup Action Plan of 2012.

Under the Agreed Order, soil cleanup activities included:

- Removing and crushing concrete building foundations.
- Removing contaminated soil and filling the areas with clean soil and then one foot of clean recycled crushed concrete.
- Pumping and treating groundwater from areas where soil was removed.
- Removing free-floating contaminants.
- Sampling soil to make sure all contaminated soil was removed.

In addition, post-cleanup groundwater monitoring was performed for one year to confirm MTCA cleanup levels had been achieved.

Ecology issued a Fact Sheet dated March, 2012, stating preliminary approval of the remedial action for the site, subject to a 30-day public comment period regarding the completion of the site cleanup and removal from the Hazardous Sites List. Only one comment was received by Ecology during the comment period, which ended April 20, 2012.

This completes the remedial action requirements of Agreed Order #DE 4108, and therefore no additional remedial action is necessary at this site unless new or different information becomes known.

Ecology will update its database to reflect this determination. This site will not appear in future publications of the Hazardous Sites List. However, please note that because your actions were not conducted under a consent decree with Ecology, this letter is written pursuant to RCW 70.105D.030(1)(j) and does not constitute a settlement by the state under RCW 70.105D.040(4) and is not binding on Ecology.

Please call me at (360) 407-7115, or email Guy Barrett at Gbar461@ecy.wa.gov, if you have any questions.

Sincerely,

Rebecca S. Lawson

Rebecca S. Lawson, P.E., LHG
Regional Section Manager
Southwest Regional Office
Toxics Cleanup Program

RSL/GB/ksc:Hardel AO Satisfaction

By certified mail: (7009 3410 0000 1273 0104)

cc: Suzanne Dudziak, Greylock Consulting, LLC
David J. Wild, Hardel Mutual Plywood, Inc.
Katherine Scott, Ecology

Enclosure B

ERTS 701857

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Attachment 19.A

Initial Investigation Close-Out Router

ERTS #: 701857	Site Name: Hardel Mutual Plywood

1

Recommended Action: Circle one of the appropriate categories:

No Further Action (NFA)

List on Confirmed and Suspected Contaminated Sites List (CSCSL)

Initial Investigator: Aaren Fiedler

2

Recommended Action: Circle one of the appropriate categories:

NFA (Non-List)

NFA (List on CSCSL as NFA; cleanup occurred)

List on CSCSL

Unit Supervisor/Regional Coordinator: Kirsten Wecker

3

Final Action: Circle one of the appropriate categories:

NFA (Non-List)

NFA (List on CSCSL as NFA; cleanup occurred)

List on CSCSL

Section Manager:

LUST ☐	Docs on Y: ☐	NFA Letter ☐
New UNIT ☐ _____	New CSID ☐	☐
New FSID ☐	Rescind NFA ☐	_____ ☐

Non-Listed NFAs go Directly to the Incident Tracker, and Then the File Room; Others Follow the Process Below

4

Date Entered into ISIS:

Cleanup Site ID Number:

Facility/Site ID Number: 75128579

Date Early Notice Letter Sent (*Listed Sites Only, excludes NFA-List*):

FS/ISIS Coordinator:

5 Incident Tracker: Date:

6 File Room: County: File Type:

Attachment 19.A

DEPARTMENT OF ECOLOGY
State of Washington

☒ Check this box if you have attached any documents to this form (using the paperclip icon on the left).

ERTS #(s):	**701857**
Parcel # (s):	**72600200100**
County:	**Thurston**
FSID #:	**75128579**
CSID #:	Click to enter text.
UST #:	Click to enter text.

SITE INFORMATION

Site Name (Name over door): **Hardel Mutual Plywood**	Site Address (including City, State, and Zip): **1210 W Bay Dr. NW** **Olympia WA 98502**	Phone Click to enter text. Email **Click to enter text.**
Site Contact, Title, Business: **Suzanne Dudziak, Consultant,** **Greylock Environmental Inc**	Site Contact Address (including City, State, and Zip) **720 S 333rd St. Suite 210** **Federal Way, WA 98003**	Phone **253-661-3520** Email **Suzanne@greylockenv.com**
Site Owner, Title Business: **Hardel Mutual Plywood Corp**	Site Owner Address (including City, State, and Zip): **143 Maurin Rd** **Chehalis, WA 98532**	Phone **1-800-562-6344** Email **Click to enter text.**
Site Owner Contact, Title, Business: **Craig Gronka,** **Safety/Environmental Director** **Hardel Mutual Plywood**	Site Owner Contact Address (Including City, State, and Zip): **143 Maurin Rd** **Chehalis, WA 98532**	Phone **1-800-562-6344** Email **Click to enter text.**
Previous Site Owner(s): **Click to enter text.**	Additional Info (for any Site Information Item): **Click to enter text.**	
Alternate Site Name(s): **HARDEL MUTUAL PLYWOOD CORP**		

Latitude (Decimal Degrees):	**47.05801**
Longitude (Decimal Degrees):	**-122.91394**

INSPECTION INFORMATION

☐ Please check this box if there is relevant inspection information, such as data or photos, in an existing site report for this site.

Inspection Conducted? Yes ☐ No ☒	Date/Time: Click to enter text.	Entry Notice:	Announced ☐ Unannounced ☐
Photographs taken?	Yes ☐	No ☒	Note: Attach photographs or upload to PIMS
Samples Collected?	Yes ☐	No ☒	Note: Attach record with media, location, depth, etc.

RECOMMENDATION

No Further Action (Check appropriate box below):		**LIST on Confirmed and Suspected Contaminated Sites List:** ☒
Release or threatened release does not pose a threat	☐	
No release or threatened release	☐	
Refer to program/agency (Name: **Click to enter text.**)	☐	
Independent Cleanup Action Completed (contamination removed)	☐	

COMPLAINT (Brief Summary of ERTS Complaint):

A petroleum odor was noted during a Site investigation and samples were collected, apparently from a single boring. The sample collected in the 8.5 foot to 10 foot below ground surface (bgs) depth showed an exceedance of the MTCA Method A cleanup screening level for TPH-D/O.

CURRENT SITE STATUS (Brief Summary of why Site is recommended for Listing or NFA):

Laboratory confirmed exceedance of the MTCA Method A cleanup screening level for TPH-D/O. Contamination extent is not defined for any media.

Investigator: **Aaren Fiedler**	Date Submitted: 2/17/2021

OBSERVATIONS ☐ **Please check this box if you included information on the Supplemental Page at end of report.**

Description (If site visit made, please be sure to include the following: site observations, site features and cover, chronology of events, sources/past practices likely responsible for contamination, presence of water supply wells and other potential exposure pathways, etc):

Only a laboratory report with what appears to be a single boring with three samples collected was provided for the Site. That laboratory report and a table summarizing the results is attached.

Laboratory report shows a TPH-D/O result of 2,760 mg/kg for sample B2C8.5-10. The exact location of this sample is not known. It was reported as being in the northwest area of the property to ERTS. When I reached out to Ms. Dudziak, she indicated that that was not the correct location and that it was actually from the northeast area of the Site.

The sample collected below that exceedance (B2C10.5-11.5) did not show an exceedance with a result of <250 mg/kg. It should be noted that it is not indicated in the Report if this result is less than the practical quantitation limit (PQL) and may potentially be an estimated result, or if it is less than the method detection limit (MDL) and is a non-detect.

Additional sampling will be necessary to determine the extents of contamination in soil. Groundwater sampling should be done, and surface water sampling may be necessary at well.

A cleanup has been conducted on the property under an agreed order that received an NFA on 8/22/2012. It was reported to ERTS that the new sample was collected outside of that cleanup area. FSID is 75128579. The previous cleanup Site id is 3704

It is not known why the analysis was limited to only NWTPH-Dx petroleum ranges. Other petroleum substances and related substances may need to be investigated. Polycyclic aromatic hydrocarbons (PAHs) are indicated in ISIS as being included in the previous cleanup and are therefore being included as suspected hazardous substances for this Initial Investigation.

Property is adjacent to Budd Inlet and the northeast area of the property would be near the waterway.

Documents reviewed:

Friedman & Bruya, Inc., Laboratory Analytical Report, letter, addressed to Suzanne Dudziak (Greylock Environmental, Inc.), September 1, 2020.

CONTAMINANT GROUP	CONTAMINANT	*SOIL*	*GROUNDWATER*	*SURFACE WATER*	*AIR*	*SEDIMENT*	**Attachment 19.A** DESCRIPTION
Non-Halogenated Organics	Phenolic Compounds	Select	Select	Select	Select	Select	Compounds containing phenols (Examples: phenol; 4-methylphenol; 2-methylphenol)
	Non-Halogenated Solvents	Select	Select	Select	Select	Select	Organic solvents, typically volatile or semi-volatile, not containing any halogens. To determine if a product has halogens, search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is not a Cl, I, Br, F in the formula, it's not halogenated. (Examples: acetone, benzene, toluene, xylenes, methyl ethyl ketone, ethyl acetate, methanol, ethanol, isopropranol, formic acid, acetic acid, stoddard solvent, Naptha). *Use this when TEX contaminants are present independently of gasoline.*
	Polynuclear Aromatic Hydrocarbons (PAH)	**S**	**S**	**S**	Select	Select	Hydrocarbons composed of two or more benzene rings.
	Tributyltin	Select	Select	Select	Select	Select	The main active ingredients in biocides used to control a broad spectrum of organisms. Found in antifouling marine paint, antifungal action in textiles and industrial water systems. (Examples: Tributyltin; monobutyltin; dibutyltin)
	Methyl tertiary-butyl ether	Select	Select	Select	Select	Select	MTBE is a volatile oxygen-containing organic compound that was formerly used as a gasoline additive to promote complete combustion and help reduce air pollution.
	Benzene	Select	Select	Select	Select	Select	Benzene
	Other Non-Halogenated Organics	Select	Select	Select	Select	Select	TEX
	Petroleum Diesel	**C**	**S**	**S**	Select	Select	Petroleum Diesel
	Petroleum Gasoline	Select	Select	Select	Select	Select	Petroleum Gasoline
	Petroleum Other	**C**	**S**	**S**	Select	Select	Oil-range organics
Halogenated Organics (see notes at bottom)	PBDE	Select	Select	Select	Select	Select	Polybrominated di-phenyl ether
	Other Halogenated Organics	Select	Select	Select	Select	Select	Other organic compounds with halogens (chlorine, fluorine, bromine, iodine). search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is a Cl, I, Br, F in the formula, it is halogenated. (Examples: Hexachlorobutadiene; hexachlorobenzene; pentachlorophenol)
	Halogenated solvents	Select	Select	Select	Select	Select	PCE, chloroform, EDB, EDC, MTBE
	Polychlorinated Biphenyls (PCB)	Select	Select	Select	Select	Select	Any of a family of industrial compounds produced by chlorination of biphenyl, noted primarily as an environmental pollutant that accumulates in animal tissue with resultant pathogenic and teratogenic effects
	Dioxin/dibenzofuran compounds (see notes at bottom)	Select	Select	Select	Select	Select	A family of more than 70 compounds of chlorinated dioxins or furans. (Examples: Dioxin; Furan; Dioxin TEQ; PCDD; PCDF; TCDD; TCDF; OCDD; OCDF). *Do not use for 'dibenzofuran', which is a non-chlorinated compound that is detected using the semivolatile organics analysis 8270*
Metals	Metals – Other	Select	Select	Select	Select	Select	Cr, Se, Ag, Ba, Cd
	Lead	Select	Select	Select	Select	Select	Lead
	Mercury	Select	Select	Select	Select	Select	Mercury
	Arsenic	Select	Select	Select	Select	Select	Arsenic
Pesticides	Non-halogenated pesticides	Select	Select	Select	Select	Select	Pesticides without halogens (Examples: parathion, malathion, diazinon, phosmet, carbaryl (sevin), fenoxycarb, aldicarb)
	Halogenated pesticides	Select	Select	Select	Select	Select	Pesticides with halogens (Examples: DDT; DDE; Chlordane; Heptachlor; alpha-beta and delta BHC; Aldrin; Endosulfan, dieldrin, endrin)

CONTAMINANT GROUP	CONTAMINANT	*SOIL*	*GROUNDWATER*	*SURFACE WATER*	*AIR*	*SEDIMENT*	**Attachment 19.A** DESCRIPTION
Other Contaminants	Radioactive Wastes	Select	Select	Select	Select	Select	Wastes that emit more than background levels of radiation.
	Conventional Contaminants, Organic	Select	Select	Select	Select	Select	Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)
	Conventional Contaminants, Inorganic	Select	Select	Select	Select	Select	Non-metallic inorganic substances or indicator parameters that may indicate the existence of contamination if present at unusual levels (Examples: Sulfides, ammonia)
	Asbestos	Select	Select	Select	Select	Select	All forms of Asbestos. Asbestos fibers have been used in products such as building materials, friction products and heat-resistant materials.
	Other Deleterious Substances	Select	Select	Select	Select	Select	Other contaminants or substances that cause subtle or unexpected harm to sediments (Examples: Wood debris; garbage (e.g., dumped in sediments))
	Benthic Failures	Select	Select	Select	Select	Select	Failures of the benthic analysis standards from the Sediment Management Standards.
	Bioassay Failures	Select	Select	Select	Select	Select	For sediments, a failure to meet bioassay criteria from the Sediment Management Standards. For soils, a failure to meet TEE bioassay criteria for plant, animal or soil biota toxicity.
Reactive Wastes	Unexploded Ordinance	Select	Select	Select	Select	Select	Weapons that failed to detonate or discarded shells containing volatile material.
	Other Reactive Wastes	Select	Select	Select	Select	Select	Other Reactive Wastes (Examples: phosphorous, lithium metal, sodium metal)
	Corrosive Wastes	Select	Select	Select	Select	Select	Corrosive wastes are acidic or alkaline (basic) wastes that can readily corrode or dissolve materials they come into contact with. Wastes that are highly corrosive as defined by the Dangerous Waste Regulation (WAC 173-303-090(6)). (Examples: Hydrochloric acid; sulfuric acid; caustic soda)

(fill in contaminant matrix above with appropriate status choice from the key below the table)

Status choices for contaminants	
Contaminant Status	**Definition**
B— Below Cleanup Levels (Confirmed)	The contaminant was tested and found to be below cleanup levels. (Generally, we would not enter each and every contaminant that was tested; for example if an SVOC analysis was done we would not enter each SVOC with a status of "below". We would use this for contaminants that were believed likely to be present but were found to be below standards when tested
S— Suspected	The contaminant is suspected to be present; based on some knowledge about the history of the site, knowledge of regional contaminants, or based on other contaminants known to be present
C— Confirmed Above Cleanup Levels	The contaminant is confirmed to be present above any cleanup level. For example—above MTCA method A, B, or C; above Sediment Quality Standards; or above a presumed site-specific cleanup level (such as human health criteria for a sediment contaminant).
RA— Remediated - Above	The contaminant was remediated, but remains on site above the cleanup standards (for example—capped area).
RB— Remediated - Below	The contaminant was remediated, and no area of the site contains this contaminant above cleanup standards (for example—complete removal of contaminated soils).

Halogenated chemicals and solvents: Any chemical compound with chloro, bromo, iodo or fluoro is halogenated; those with eight or fewer carbons are generally solvents (e.g. halogenated methane, ethane, propane, butane, pentane, hexane, heptane or octane) and may also be used for or registered as pesticides or fumigants. Most are dangerous wastes, either listed or categorical. Organic compounds with more carbons are almost always halogenated pesticides or a contaminant or derivative. Referral to the HSDB is recommended if you are unfamiliar with a chemical name or compound, as it contains useful information about synonyms, uses, trade names, waste codes, and other regulatory information about most toxic or potentially toxic chemicals.

Dibenzodioxins and dibenzofurans are normalized to a combined equivalent toxicity based on 2,3,7,8-tetrachloro-p-dibenzodioxin as set out in WAC 173-340-708(8)(d) and in the Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures using Toxicity Equivalency Factors Focus Sheet (https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf). Results may be reported as individual compounds and isomers (usually lab results), or as a toxic equivalency value (reports).

Attachment 19.A

FOR ECOLOGY II REVIEWER USE ONLY (For Listing Sites):

How did the Site come to be known: ☐ **Site Discovery (received a report)** Date (Date Report Received)
☒ **ERTS Complaint**
☐ **Other (please explain):** Click to enter text.

Does an Early Notice Letter need to be sent: ☒ Yes ☐ No
If *No*, please explain why: Click to enter text.

NAICS Code (if known): Click to enter text.
Otherwise, briefly explain how property is/was used (i.e., gas station, dry cleaner, paint shop, vacant land, etc.):
Click to enter text.

Site Unit(s) to be created (Unit Type): ☒ Upland (includes VCP & LUST) ☐ Sediment
If multiple Unites needed, please explain why: Click to enter text.

Cleanup Process Type (for the Unit) ☒ No Process ☐ Independent Action
☐ Voluntary Cleanup Program ☐ Ecology-supervised or conducted
☐ Federal-supervised or conducted

Site Status: ☒ Awaiting Cleanup ☐ Construction Complete – Performance Monitoring
☐ Cleanup Started ☐ Cleanup Complete – Active O&M/Monitoring
☐ No Further Action Required

Model Remedy Used? ☐
If yes, was this a transformer spill? ☐

Site Manager (Default Southwest) Southwest

Specific confirmed contaminants include:
Diesel, oil in Soil
Click to enter text. in Groundwater
Click to enter text. in Other (specify matrix: Choose an item.

Facility/Site ID No. (if known):
Click to enter text.
Cleanup Site ID No. (if known):
Click to enter text.

COUNTY ASSESSOR INFO: Please attach to this report a copy of the tax parcel/ownership information for each parcel associated with the site, as well as a parcel map illustrating the parcel boundary and location.

Attachment 19.A

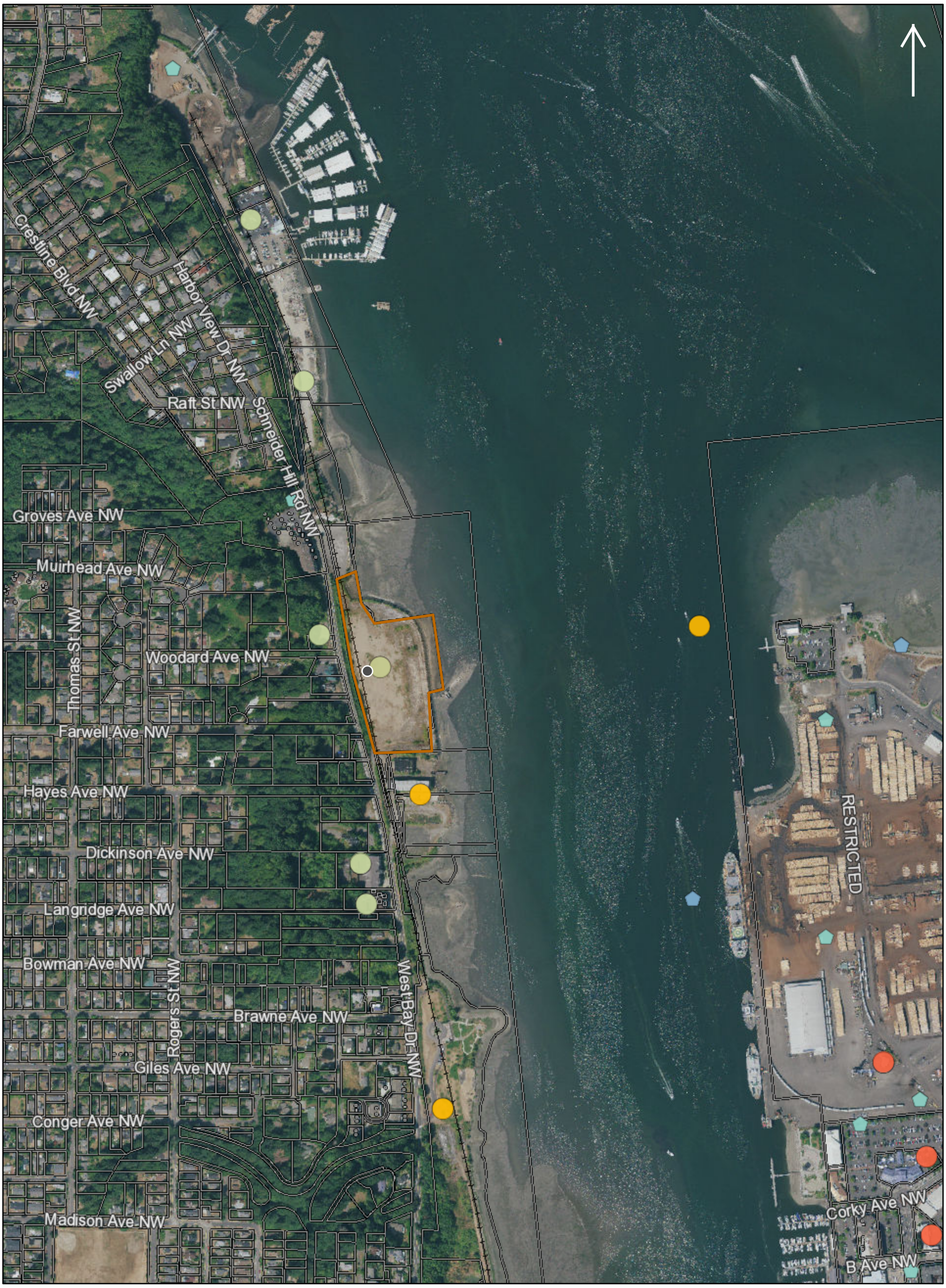
Additional or Supplemental Information for Observations Page

Please use this box for any text that requires special formatting

Click to enter text.

Ecology Figure 1: Site location with Parcels

Attachment 19.A



February 16, 2021

TCP Cleanupsites 1

- Awaiting Cleanup
- Cleanup Started
- No Further Action
- Monitoring
- Tracked by EPA

ECY Program Data 1

- HAZWASTE
- INDUSTRIAL
- SPILLS
- W2R
- roads

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Leica Geosystems, Inc
WA Dept. of Ecology

Attachment 19.A

Thurston County Assessor

Parcel Number: 72600200100 **Date: 2/16/2021**

Situs Address:	1210 WEST BAY DR NW	**Sect/Town/Range:**	10 18 2W
Owner:	HARDEL MUTUAL PLYWOOD CORP	**Size:**	7.00 Acres
Address:	143 MAURIN RD CHEHALIS, WA 98532	**UseCode:**	91 Undeveloped Land
		TCA Number:	110
		Neighborhood:	0LEA
Taxpayer:	HARDEL MUTUAL PLYWOOD CORP	**Property Type:**	LND
Address:	143 MAURIN RD CHEHALIS, WA 98532	**Taxable:**	YES
		Active Exemptions:	None
		School District:	OLYMPIA S.D. #111
Abbreviated Legal:	SCHNEIDER LOT 1 BLK 2 LESS S 200F TGW PT HURD DLC DAF: COM SE COR DLC W 95F N18-14W 2.215 CH; E 20F; N16-53W 140.5 F; W 47.5F; N10-45W 120F; W 130F; N10-45W 60F; E 120F; N10-	**Water Source:**	PUBLIC
		Sewer Type:	SEWER

Market Values

Tax Year	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**
Assessment Year	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Market Value Land	$3,365,700	$3,238,500	$2,406,100	$2,746,100	$2,032,850	$1,648,700	$1,667,200	$1,611,650	$2,434,650	$2,911,000
Market Value Buildings										
Market Value Total	**$3,365,700**	**$3,238,500**	**$2,406,100**	**$2,746,100**	**$2,032,850**	**$1,648,700**	**$1,667,200**	**$1,611,650**	**$2,434,650**	**$2,911,000**

Land Characteristics

Land Flag	5040	**Land Influence(s)**	EV-EXC-VIEW MT-MOD-TRAFFIC
Lot Square Footage	Not Listed		
Lot Acreage	7		
Effective Frontage	Not Listed		
Effective Depth	Not Listed		
Water Source	Public		
Sewer Source	Public		

Sales

Sale Date:	04/29/2005
Price:	$122,500
Excise:	339422
Sale Type:	QUIT CLAIM DEED
Recording Number:	3743789
Seller:	
Buyer:	HARDEL MUTUAL PLYWOOD CORP
Multiple Parcel Sale:	N

Office of the Assessor
Steven J. Drew, Assessor
2000 Lakeridge Drive SW - Olympia, WA 98502
Customer Service (360)867-2200 -- Fax (360)867-2201 -- TDD (360)754-2933

Facility/Site: 75128579 Hardel Mutual Plywood

Attachment 19.A

Also known as: Hardel Mutual Plywood, HARDEL MUTUAL PLYWOOD CORP

Address

1210 W BAY DR NW

OLYMPIA WA 98502-4671

Decimal Coordinates

Latitude: 47.058

Longitude: -122.91394

Geographic Information

Ecology Region: SWRO

County: Thurston

Legislative District: 22

Congressional District: 10

WRIA: 13

Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Enforcement Final	TOXICS	(360) 407-6712		2/15/2007	
State Cleanup Site	TOXICS	(360) 407-7224		7/20/2004	10/12/2004
Underground Storage Tank	TOXICS	(360) 407-7224	1719	6/8/1998	3/22/2000
Industrial SW GP	WATQUAL	(360) 407-6400	SO3000121	12/24/1992	6/5/2003
Emergency/Haz Chem Rpt TIER2	HAZWASTE	(360) 407-6171	WAD009262072	1/1/1989	3/1/1997
Toxics Release Inventory	HAZWASTE	(360) 407-6171	WAD009262072	7/1/1988	7/1/1989
Toxics Release Inventory	HAZWASTE	(360) 407-6171	WAD009262072	1/1/1987	7/4/1776
Air Qual Local Authority Reg	AIRQUAL	(360) 407-6806		1/1/1984	
Hazardous Waste Generator	HAZWASTE	(360) 407-6734	WAD009262072	8/18/1980	12/31/1998

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
2436	SOFTWOOD VENEER AND PLYWOOD

Attachment 19.A

Site Samples with Analytical Results that Exceed the MTCA Method A Cleanup Level			
Sample ID	**Sample Date**	**Units**	**TPH-D/O CAS# NONE**
Soil			
B2C8.5-10	8/20/2020	mg/kg	**2,760**
B2C10.5-11.5	8/20/2020	mg/kg	<250
B2S 8-10	8/20/2020	mg/kg	<250
Soil Cleanup Screening Level		mg/kg	2000

Notes

@ - Final MTCA Method A TPH-G cleanup level (CUL) will depend on the benzene, toluene, ethylbenzene, and xylenes (BTEX) amounts present in the released product.

* - A MTCA Method A CUL has not been established for this hazardous substances. A MTCA Method B CUL is being used as a cleanup screening level for the purposes of this assessment.

< - Analyte results is less than the laboratory reporting limit. That limit is not specified in the Report. It is not know to Ecology if this is a true non-detect (result less than the laboratory method detection limit (MDL)) or an estimated result (result less than the laboratory practical quantitation limit (PQL) but greater than the MDL)

Attachment 19.A

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

September 1, 2020

Suzanne Dudziak, Project Manager
Greylock Environmental, Inc.
720 S 333rd St, Suite 210
Federal Way, WA 98003

Dear Ms Dudziak:

Included is the amended report from the testing of material submitted on August 21, 2020 from the Hardel, F&BI 008336 project. Per your request, the sample ID was amended from B2C8:5-10 to B2C8.5-10.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
GRL0827R.DOC

Attachment 19.A

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
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Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

August 27, 2020

Suzanne Dudziak, Project Manager
Greylock Environmental, Inc.
720 S 333rd St, Suite 210
Federal Way, WA 98003

Dear Ms Dudziak:

Included are the results from the testing of material submitted on August 21, 2020 from the Hardel, F&BI 008336 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
GRL0827R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on August 21, 2020 by Friedman & Bruya, Inc. from the Greylock Environmental Hardel, F&BI 008336 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Greylock Environmental
008336 -01	B2C8.5-10
008336 -02	B2C10.5-11.5
008336 -03	B2S 8-10

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/27/20
Date Received: 08/21/20
Project: Hardel, F&BI 008336
Date Extracted: 08/24/20
Date Analyzed: 08/24/20

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 53-144)
B2C8.5-10 008336-01	260 x	2,500	85
B2C10.5-11.5 008336-02	<50	<250	79
B2S 8-10 008336-03	<50	<250	83
Method Blank 00-1913 MB	<50	<250	77

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 08/27/20
Date Received: 08/21/20
Project: Hardel, F&BI 008336

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 008350-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	90	100	64-133	11

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	96	58-147

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

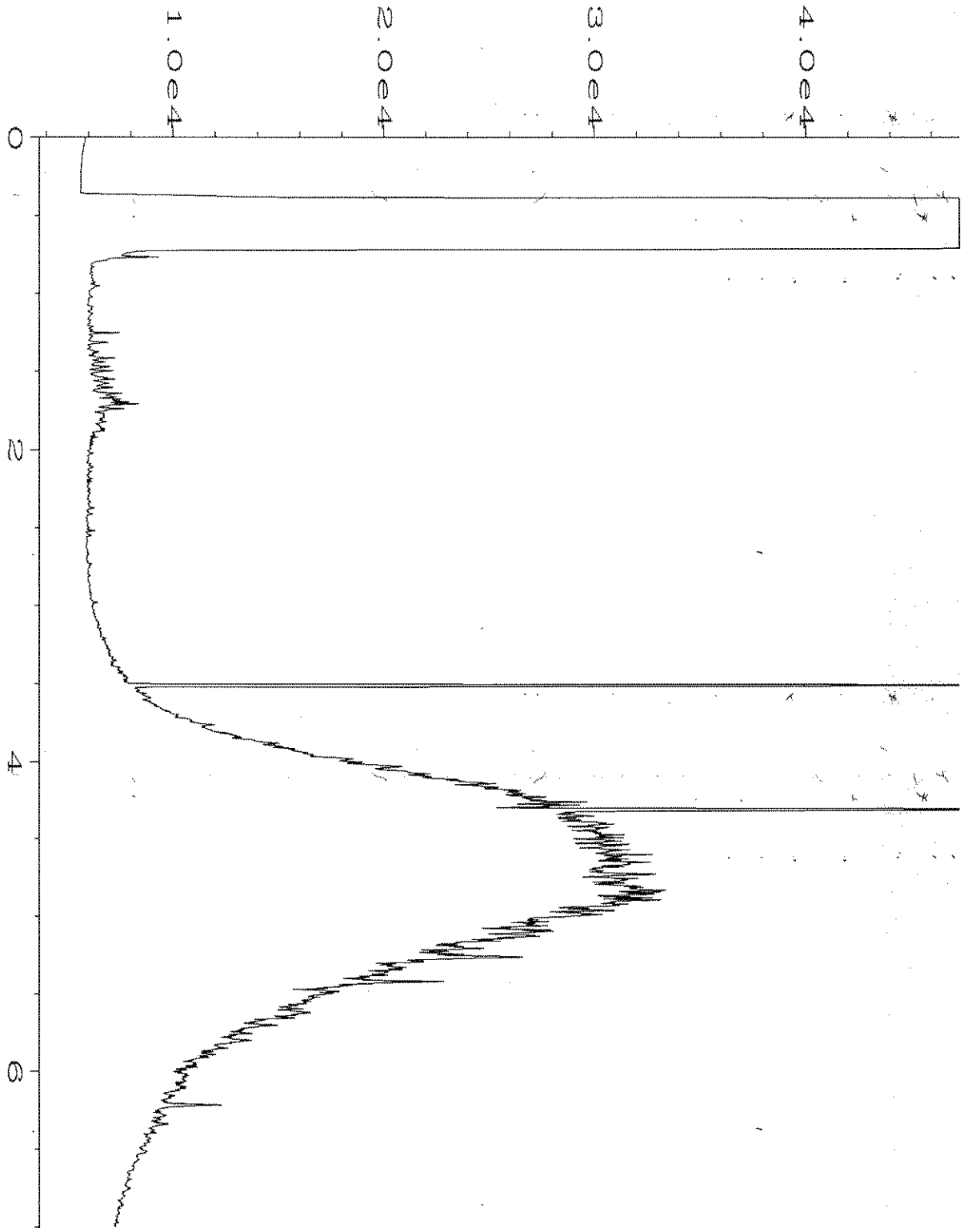
pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

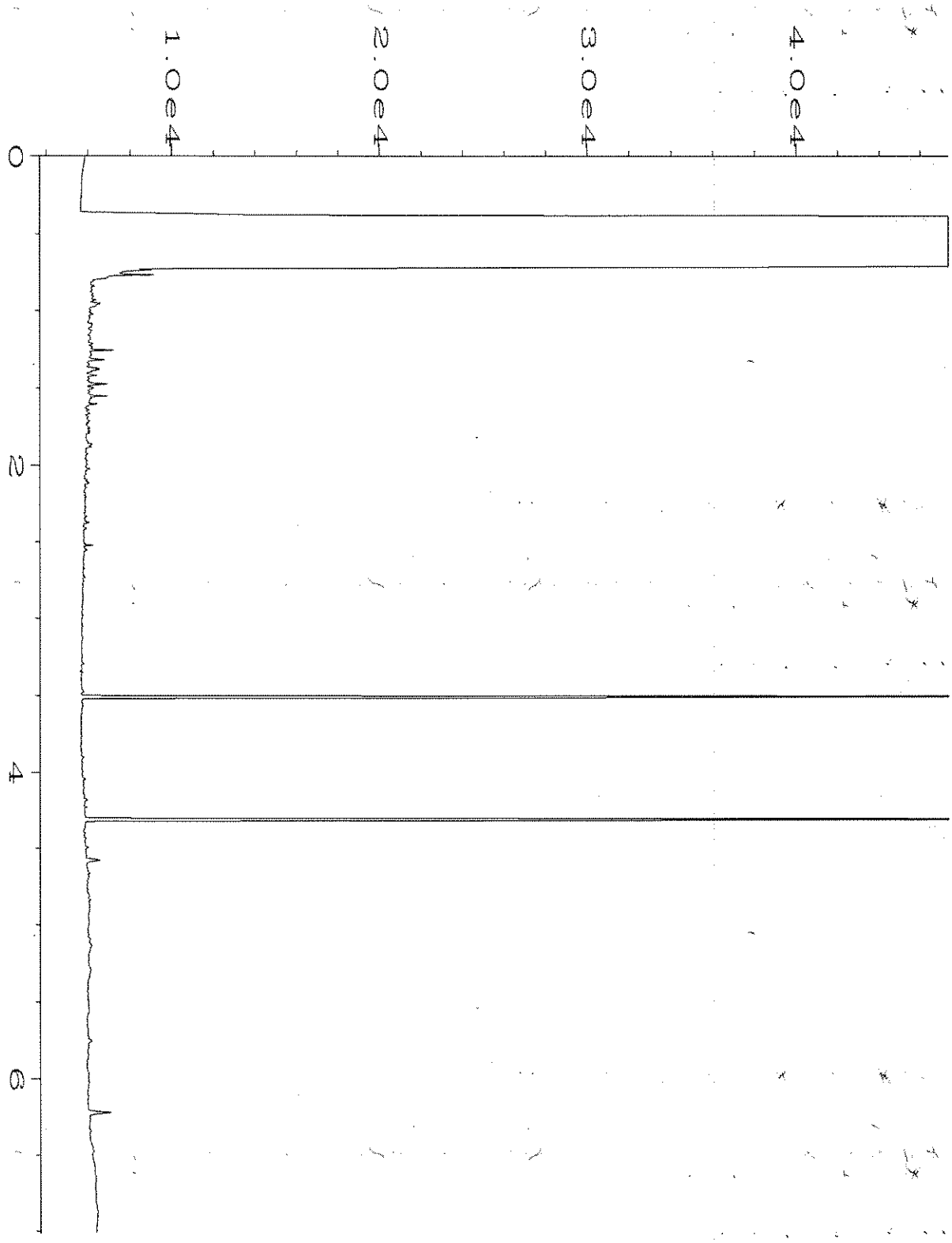
Attachment 19.A



Data File Name : C:\HPCHEM\6\DATA\08-24-20\032F0501.D
Operator : TL
Instrument : GC6
Sample Name : 008336-01
Run Time Bar Code:
Acquired on : 24 Aug 20 04:22 PM
Report Created on: 01 Sep 20 11:24 AM

Page Number : 1
Vial Number : 32
Injection Number : 1
Sequence Line : 5
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

Attachment 19.A



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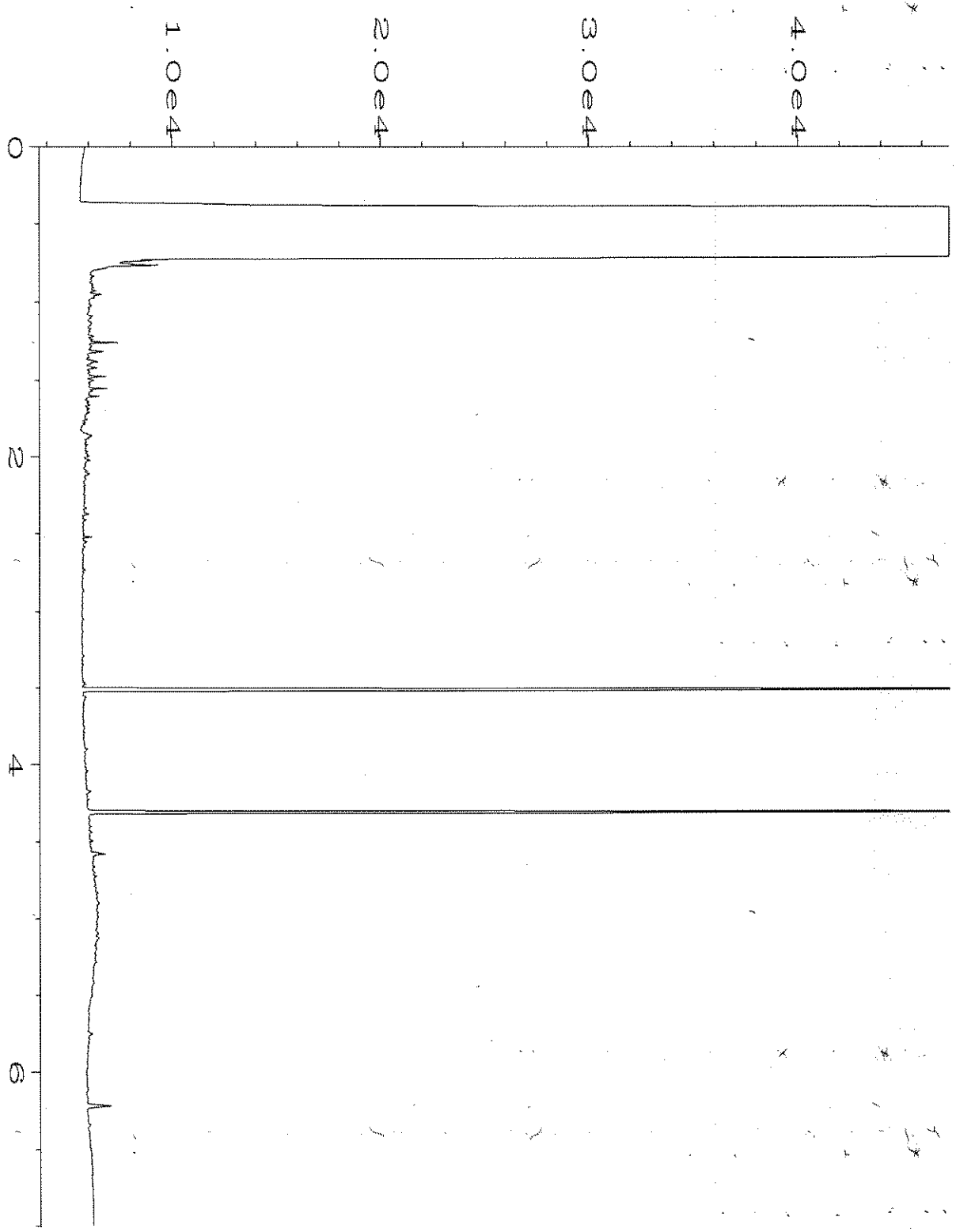
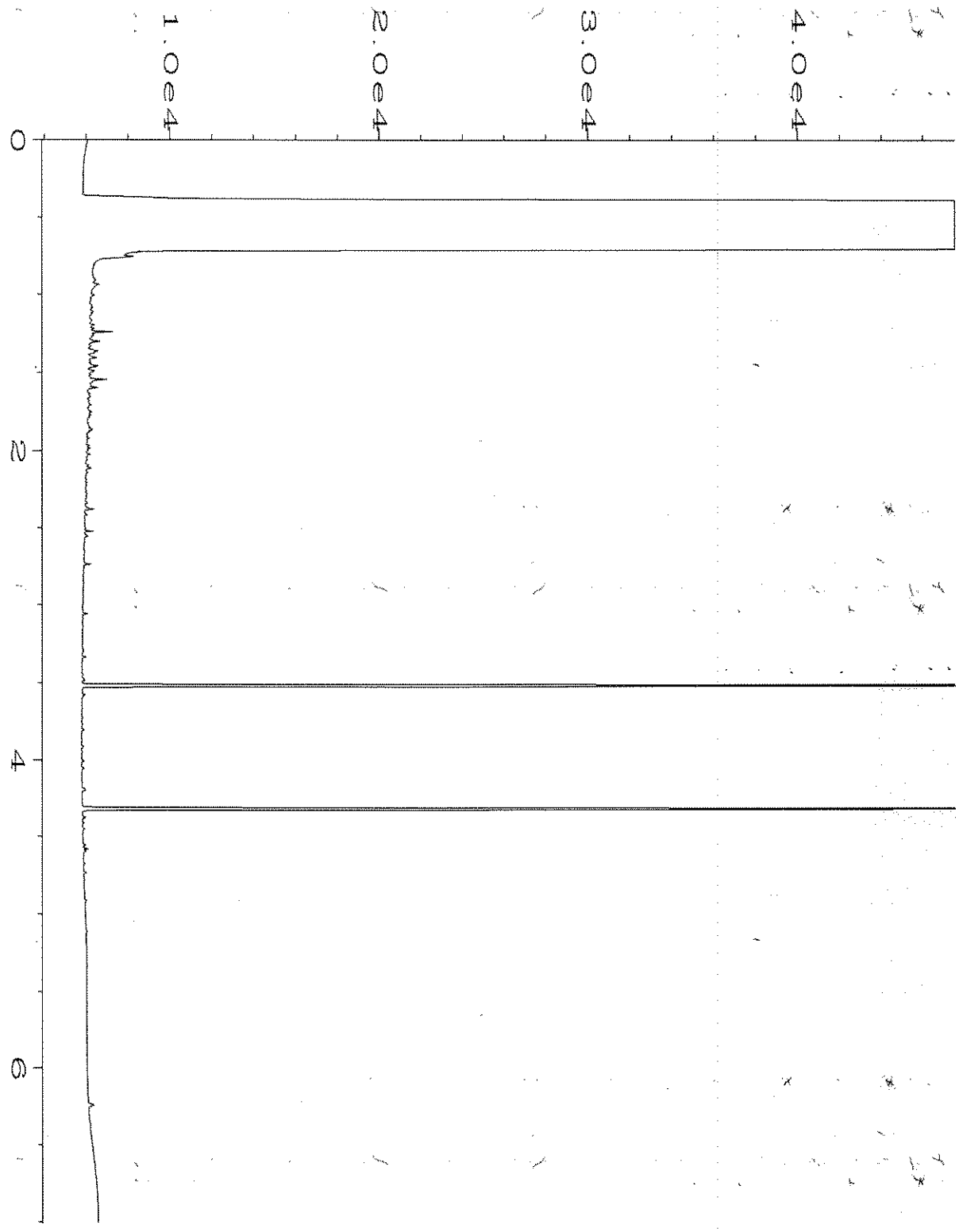
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 33
Sample Name	: 008336-02	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 24 Aug 20 04:31 PM	Instrument Method	: DX.MTH
Report Created on:	01 Sep 20 11:24 AM	Analysis Method	: DEFAULT.MTH

Attachment 19.A



Data File Name	: C:\HPCHEM\6\DATA\08-24-20\034F0501.D		
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 34
Sample Name	: 008336-03	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 5
Acquired on	: 24 Aug 20 04:42 PM	Instrument Method	: DX.MTH
Report Created on:	01 Sep 20 11:24 AM	Analysis Method	: DEFAULT.MTH

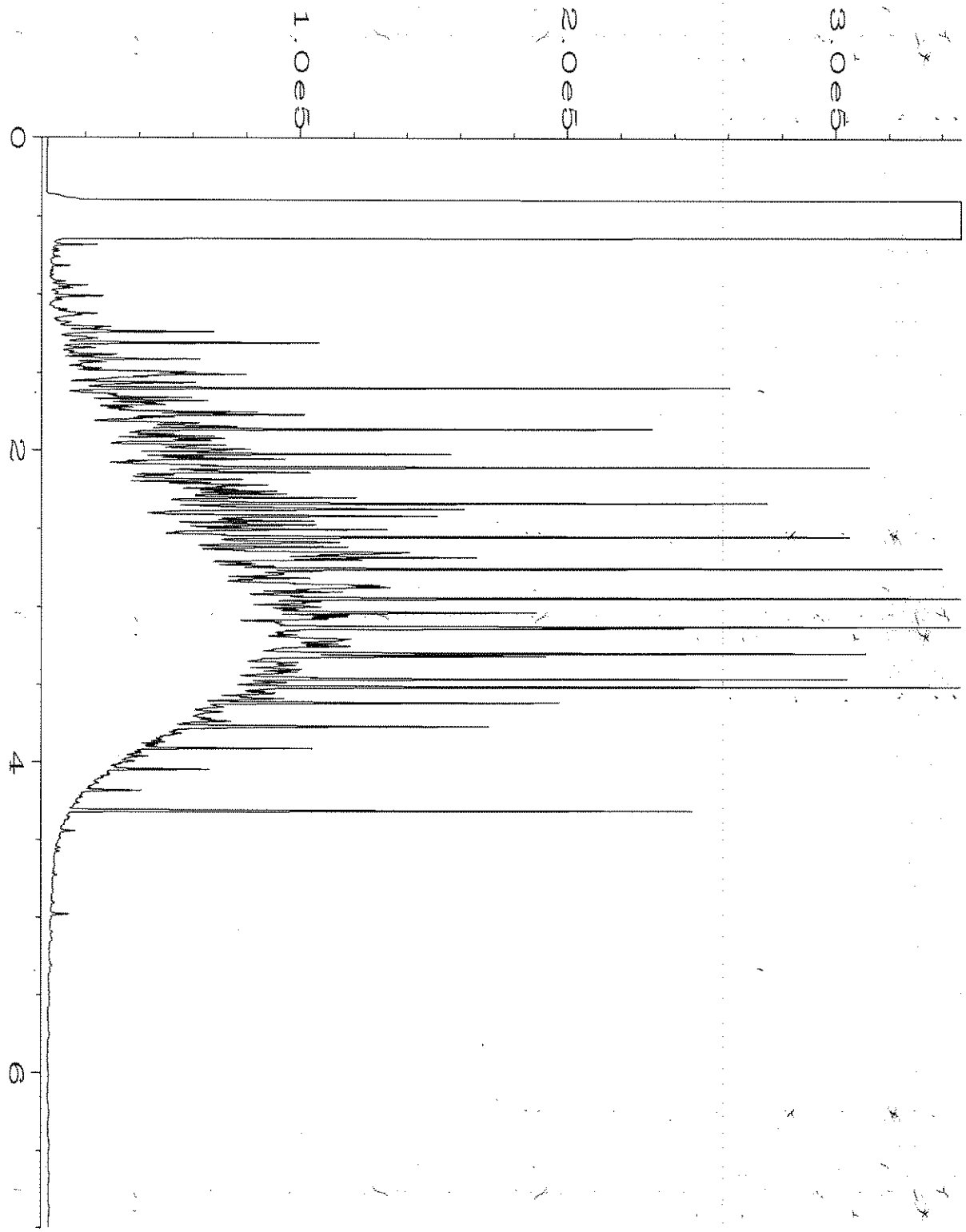
Attachment 19.A



Data File Name : C:\HPCHEM\6\DATA\08-24-20\020F0301.D
Operator : TL
Instrument : GC6
Sample Name : 00-1913 mb
Run Time Bar Code:
Acquired on : 24 Aug 20 01:45 PM
Report Created on: 01 Sep 20 11:24 AM

Page Number : 1
Vial Number : 20
Injection Number : 1
Sequence Line : 3
Instrument Method: DX.MTH
Analysis Method : DEFAULT.MTH

Attachment 19.A



Data File Name	: C:\HPCHEM\6\DATA\08-24-20\005F0401.D		
Operator	: TL	Page Number	: 1
Instrument	: GC6	Vial Number	: 5
Sample Name	: 1000 Dx 60-170B	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 4
Acquired on	: 24 Aug 20 04:07 PM	Instrument Method	: DX.MTH
Report Created on	: 01 Sep 20 11:25 AM	Analysis Method	: DEFAULT.MTH

Attachment 19.A

008336

SAMPLE CHAIN OF CUSTODY

ME 08/21/20

Page # 1 of 1 D01

Send Report To Suzanne Dutzial
Company Greylock
Address 720 S 333rd St
City, State, ZIP Federal Way
Phone # 253661 3520 Fax #
Email Address suzanne@greylockenv.ca

SAMPLERS (signature) S Dutzial
PROJECT NAME/NO. Hardel
PO #
PROJECT ADDRESS 1210 West Bay Dr. Olympia
• ELECTRONIC DATA REQUESTED

TURNAROUND TIME
• Standard Turnaround
• RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
• Dispose after 30 days
• Return samples
• Will call with instructions

Samples Received at ___ °C

Sample ID (per SD 8/31/20 ME)	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	X-per SD 8/24/20 ME Notes
~~B2C 8.5-10~~	01	8/20	1039	S	1	X						~~HOLD~~
B2C 10.5-11.5	02	↓	1052	↓	1	X						~~HOLD~~
B2S 8-10	03	↓	1210	↓	1	X						~~HOLD~~

Samples received at 2 °C

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044
FORMS\COC\COC.DOC

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Patricia Bowe	ESN Northwest	8/21/20	9:57
Received by:	Brian Phan	FEBT	8/21/20	1130
Relinquished by:				
Received by:				

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Enclosure C

Figure 2 – Summary of Groundwater Results and Proposed Locations
(Pioneer Technologies Corp., *RI Data Gaps Work Plan*, March 2021)

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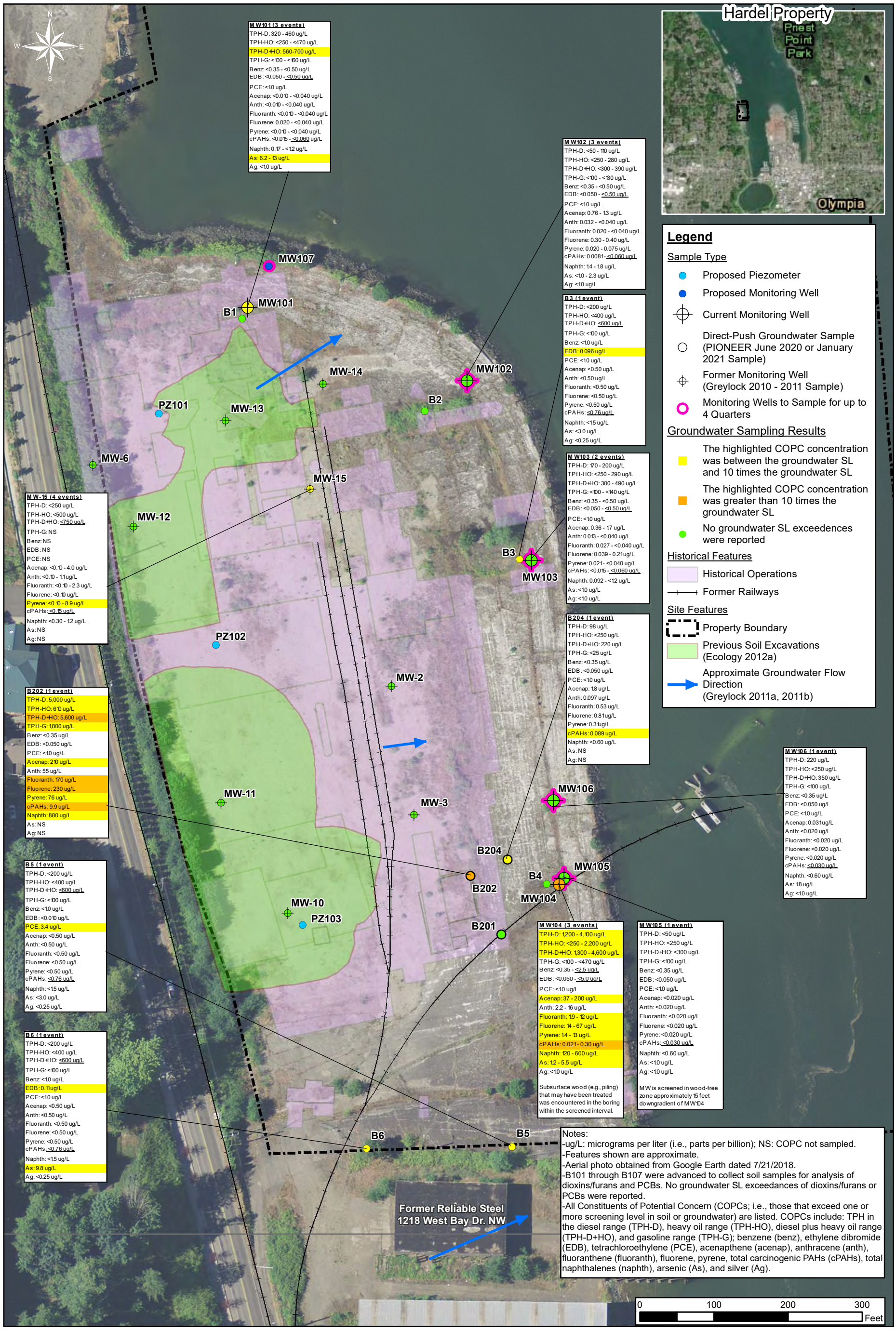

PIONEER TECHNOLOGIES CORPORATION

Summary of Groundwater Results and Proposed Sampling Locations
Hardel Mutual Plywood Corporation
RI Data Gaps Investigation Work Plan
1210 West Bay Drive NW
Olympia, WA

Figure 2

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Enclosure D

Table 1 – Summary of Soil Analytical Results

Table 2 – Summary of Groundwater Analytical Results

(Pioneer Technologies Corp., *RI Data Gaps Work Plan*, March 2021)

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Attachment 19.A

Table 1: Summary of Soil Analytical Results

Constituent	Sample Location, Depth Interval (Feet bgs), and Sample Date										Soil Screening Levels[1]		
	B1	B2	B3	B4	B4	B5	B6	B7	B8	B9	Soil Direct Contact Screening Level for an Unrestricted Land Use Scenario (mg/kg)	Soil Direct Contact Screening Level for a Commercial/Industrial Land Use Scenario (mg/kg)	Soil-to-Groundwater-to Surface Water Screening Level (mg/kg)
	4'-5'	2'-4'	2'-3'	1'-3'	11'-12'	3'-4'	3'-4'	3'-5'	4'-5'	6'-7'			
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020			
Total Petroleum Hydrocarbons (mg/kg)													
Diesel Range Organics (TPH-D)	50 U	**41,000**	50 U	50 U	50 U	50 U	50 U	50 U	50 U	50 U	3,000	39,000	2,000
Gasoline (TPH-G)	10 U	**190**	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	4,700	150,000	30
Heavy Fuel Oil (TPH-HO)	**2,600**	**1,500**	**3,300**	**550**	**420**	250 U	250 U	**430**	250 U	250 U	3,000	39,000	2,000
C8-C10 Aliphatic	NA	**52**	18.3 U	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C10-C12 Aliphatic	NA	**383**	9.16 U	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C12-C16 Aliphatic	NA	**1,880**	9.16 U	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C16-C21 Aliphatic	NA	**1,390**	**19**	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C21-C34 Aliphatic	NA	**1,180**	**527**	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C8-C10 Aromatic	NA	**23**	9.16 U	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C10-C12 Aromatic	NA	**73**	9.16 U	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C12-C16 Aromatic	NA	**540**	9.16 U	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C16-C21 Aromatic	NA	**958**	**30**	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
C21-C34 Aromatic	NA	**316**	**470**	NA	NA	NA	NA	NA	NA	NA	No Value	No Value	No Value
VOCs (mg/kg)													
1,2,4-Trimethylbenzene	0.020 U	**10**	0.020 U	0.020 U	0.020 U	0.020 U	**0.036**	**0.17**	0.020 U	0.020 U	800	35,000	No Value
1,3,5-Trimethylbenzene	0.020 U	**3.6**	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	**0.049**	0.020 U	0.020 U	800	35,000	No Value
Benzene	0.020 U	**0.34**	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	18	2,400	0.020
Chloroethane	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	No Value	No Value	No Value
Cumene	0.080 U	**0.56**	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	0.080 U	8,000	350,000	No Value
Ethylbenzene	0.030 U	**0.33**	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	8,000	350,000	**0.26**
Ethylene dibromide (EDB)	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.50	66	0.0050
n-Butylbenzene	0.020 U	**1.4**	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	4,000	180,000	No Value
n-Propylbenzene	0.020 U	**0.95**	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	8,000	350,000	No Value
p-Isopropyltoluene	0.020 U	**1.4**	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	No Value	No Value	No Value
sec-Butylbenzene	0.020 U	**1.3**	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	8,000	350,000	No Value
Tetrachloroethylene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	480	21,000	0.029
Trichloroethylene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	12	1,800	0.030
Xylenes, Total	0.030 U	**2.5**	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	16,000	700,000	14
1,1,1,2-Tetrachloroethane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,1,1-Trichloroethane	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
1,1,2,2-Tetrachloroethane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,1,2-Trichloroethane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,1-Dichloroethane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,1-Dichloroethylene	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
1,1-Dichloropropene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
1,2,3-Trichlorobenzene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	Not Calculated	Not Calculated	Not Calculated
1,2,3-Trichloropropane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,2,4-Trichlorobenzene	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
1,2-Cis-Dichloroethylene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
1,2-Dibromo-3-Chloropropane	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
1,2-Dichlorobenzene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,2-Dichloroethane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,2-Dichloropropane	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated

Attachment 19.A

Table 1: Summary of Soil Analytical Results

Constituent	Sample Location, Depth Interval (Feet bgs), and Sample Date										Soil Screening Levels[1]		
	B1	B2	B3	B4	B4	B5	B6	B7	B8	B9	Soil Direct Contact Screening Level for an Unrestricted Land Use Scenario (mg/kg)	Soil Direct Contact Screening Level for a Commercial/Industrial Land Use Scenario (mg/kg)	Soil-to-Groundwater-to Surface Water Screening Level (mg/kg)
	4'-5'	2'-4'	2'-3'	1'-3'	11'-12'	3'-4'	3'-4'	3'-5'	4'-5'	6'-7'			
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020			
1,2-Trans-Dichloroethylene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
1,3-Cis-Dichloropropene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
1,3-Dichlorobenzene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,3-Dichloropropane	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
1,3-Trans-Dichloropropene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
1,4-Dichlorobenzene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
2,2-Dichloropropane	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
2-Chlorotoluene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
4-Chlorotoluene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Bromobenzene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
Bromodichloromethane	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Bromoform	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
Bromomethane	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	0.090 U	Not Calculated	Not Calculated	Not Calculated
Carbon Tetrachloride	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
Chlorobenzene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Chloroform	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Chloromethane	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	Not Calculated	Not Calculated	Not Calculated
Dibromochloromethane	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
Dichlorodifluoromethane (CFC-12)	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	0.060 U	Not Calculated	Not Calculated	Not Calculated
Hexachlorobutadiene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	Not Calculated	Not Calculated	Not Calculated
Methylene Bromide	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	Not Calculated	Not Calculated	Not Calculated
Methylene Chloride	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Methyl-t-butyl ether	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
Styrene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Tert-Butylbenzene	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
Toluene	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	0.030 U	Not Calculated	Not Calculated	Not Calculated
Trichlorofluoromethane (CFC-11)	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	Not Calculated	Not Calculated	Not Calculated
Vinyl Chloride	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	0.020 U	Not Calculated	Not Calculated	Not Calculated
PAHs/SVOCs (mg/kg)													
3&4-Methylphenol coelution	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	No Value	No Value	No Value
Acenaphthene	0.046 U	**4.8**	0.041 U	0.038 U	**0.059**	0.054 U	0.058 U	0.058 U	0.044 U	0.038 U	4,800	210,000	**3.1**
Acenaphthylene	0.046 U	0.053 U	0.041 U	0.038 U	0.044 U	0.054 U	0.058 U	**0.16**	0.044 U	0.038 U	No Value	No Value	No Value
Anthracene	**0.089**	**1.5**	0.041 U	0.038 U	0.044 U	0.054 U	0.058 U	**0.28**	0.044 U	0.038 U	24,000	1,100,000	1.0
Benzo(ghi)perylene	**0.049**	0.053 U	0.041 U	0.038 U	0.044 U	0.054 U	**0.083**	**0.55**	0.044 U	0.038 U	No Value	No Value	No Value
Carbazole	NA	NA	NA	NA	NA	0.054 U	0.087 U	**0.099**	NA	NA	No Value	No Value	No Value
Fluoranthene	**0.67**	**0.92**	**0.35**	**0.076**	**0.15**	0.054 U	**0.080**	**0.24**	0.044 U	0.038 U	3,200	140,000	5.9
Fluorene	0.046 U	**6.1**	0.041 U	0.038 U	0.044 U	0.054 U	0.058 U	0.058 U	0.044 U	0.038 U	3,200	140,000	**1.6**
Naphthalenes, Total [2]	0.046 U	**53**	0.041 U	0.038 U	0.044 U	0.054 U	**0.52**	**0.17**	0.044 U	0.038 U	1,600	70,000	4.5
Phenanthrene	**0.069**	**17**	**0.083**	0.038 U	**0.062**	0.054 U	**0.077**	**0.13**	0.044 U	0.038 U	No Value	No Value	No Value
Phenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	24,000	1,100,000	43

Attachment 19.A

Table 1: Summary of Soil Analytical Results

Constituent	Sample Location, Depth Interval (Feet bgs), and Sample Date										Soil Screening Levels[1]		
	B1	B2	B3	B4	B4	B5	B6	B7	B8	B9	Soil Direct Contact Screening Level for an Unrestricted Land Use Scenario (mg/kg)	Soil Direct Contact Screening Level for a Commercial/Industrial Land Use Scenario (mg/kg)	Soil-to-Groundwater-to Surface Water Screening Level (mg/kg)
	4'-5'	2'-4'	2'-3'	1'-3'	11'-12'	3'-4'	3'-4'	3'-5'	4'-5'	6'-7'			
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020			
Pyrene	**0.93**	**1.7**	**0.35**	**0.073**	**0.12**	0.054 U	**0.076**	**0.28**	0.044 U	0.038 U	2,400	110,000	9.2
Total cPAHs TEF [3]	**0.22**	**0.050**	**0.15**	**0.076**	0.044 U	0.054 U	**0.055**	**0.56**	0.044 U	0.038 U	0.19	130	1.6
1,2,4-Trichlorobenzene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
1,2-Dichlorobenzene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
1,3-Dichlorobenzene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
1,4-Dichlorobenzene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,4,5-Trichlorophenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,4,6-Trichlorophenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,4-Dichlorophenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,4-Dimethylphenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,4-Dinitrophenol	NA	NA	NA	NA	NA	0.57 U	0.61 U	0.61 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,4-Dinitrotoluene	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2,6-Dinitrotoluene	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2-Chloronaphthalene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2-Chlorophenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2-Nitroaniline	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
2-Nitrophenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
4,6-Dinitro-2-Methylphenol	NA	NA	NA	NA	NA	0.22 U	0.23 U	0.23 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
4-Bromophenyl phenyl ether	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
4-Chloro-3-Methylphenol	NA	NA	NA	NA	NA	0.22 U	0.23 U	0.23 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
4-Chloroaniline	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
4-Chlorophenyl-Phenylether	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
4-Nitrophenol	NA	NA	NA	NA	NA	0.54 U	0.58 U	0.58 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Benzyl Alcohol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Bis(2-Chloroethoxy)Methane	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Bis(2-Chloroethyl)Ether	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Bis(2-Ethylhexyl) Phthalate	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Butyl benzyl phthalate	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Dibenzofuran	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Dibutyl phthalate	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Diethyl phthalate	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Dimethyl phthalate	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Di-N-Octyl Phthalate	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Hexachlorobenzene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Hexachlorobutadiene	NA	NA	NA	NA	NA	0.081 U	0.087 U	0.086 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Hexachlorocyclopentadiene	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Hexachloroethane	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Isophorone	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Nitrobenzene	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
N-Nitrosodi-n-propylamine	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
o-Cresol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated
Pentachlorophenol	NA	NA	NA	NA	NA	0.11 U	0.12 U	0.12 U	NA	NA	Not Calculated	Not Calculated	Not Calculated

Table 1: Summary of Soil Analytical Results

Constituent	Sample Location, Depth Interval (Feet bgs), and Sample Date										Soil Screening Levels[1]		
	B1	B2	B3	B4	B4	B5	B6	B7	B8	B9	Soil Direct Contact Screening Level for an Unrestricted Land Use Scenario (mg/kg)	Soil Direct Contact Screening Level for a Commercial/Industrial Land Use Scenario (mg/kg)	Soil-to-Groundwater-to Surface Water Screening Level (mg/kg)
	4'-5'	2'-4'	2'-3'	1'-3'	11'-12'	3'-4'	3'-4'	3'-5'	4'-5'	6'-7'			
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020			
Metals (mg/kg)													
Arsenic	**6.5**	**10.0**	**7.3**	**8.0**	5.0 U	**7.0**	5.0 U	**8.2**	**9.2**	5.0 U	20	88	20
Barium	**87**	**294**	**57**	**72**	**42**	**88**	**120**	**103**	NA	NA	16,000	700,000	1,648
Cadmium	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	Not Calculated	Not Calculated	Not Calculated
Chromium	**14**	**37**	**12**	**14**	**24**	**23**	**13**	**20**	**10.5**	**6.7**	120,000	5,300,000	2,000
Lead	**38**	**16**	5.0 U	**10**	**9.2**	5.0 U	**7.2**	**11**	5.0 U	5.0 U	250	1,000	1,620
Mercury	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	Not Calculated	Not Calculated	Not Calculated
Selenium	**1.1**	**1.0**	**0.80**	**1.1**	**0.85**	**4.2**	**0.75**	**1.1**	NA	NA	400	18,000	5.2
Silver	**0.13**	**0.39**	0.084 U	0.082 U	0.086 U	0.090 U	0.091 U	0.098 U	NA	NA	400	18,000	**0.32**
Other (%)													
Total Organic Carbon	NA	NA	NA	**1.4**	NA	**0.077**	NA	**3.36**	NA	NA	No Value	No Value	No Value

Notes:

%: percent dry weight, feet bgs: feet below ground surface, mg/kg: milligrams per kilogram, NA: constituent not analyzed, No Value: a screening level cannot be calculated because no values exist in CLARC (Ecology 2020), Not calculated: screening level not calculated if constituent was not detected in any media (VOCs and SVOCs only), U: constituent not detected at shown reporting limit

Concentrations shown are the average of the duplicate samples, where applicable. If a constituent was detected in only one of the duplicate samples, the average of the laboratory reporting limit and the detected concentration is shown.

Bold compounds were detected at the shown concentration.

Highlighted concentrations exceed the soil direct contact screening level for unrestricted land use.

Highlighted concentrations exceed the soil direct contact screening level for commercial/industrial land use.

Highlighted concentrations exceed than the soil-to-groundwater screening level, but are less than ten times the screening level.

Highlighted concentrations are greater than ten times the soil-to-groundwater screening level.

[1] Screening Level derivations are provided in Appendix B.

[2] Total naphthalene concentrations were calculated by summing the concentrations of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. If one or more constituent was detected in the associated sample, the non-detect constituents were assumed to equal half of the laboratory reporting limit. If no constituents were detected in the associated sample, the maximum laboratory reporting limit for the associated individual constituents was shown.

[3] Total cPAH screening levels were based on the toxicity of benzo(a)pyrene in accordance with WAC 173-340-708(8). Total cPAH concentrations were calculated using MTCA toxicity equivalence factors (TEFs). If one or more cPAH was detected in the associated sample, the non-detect cPAH constituents were assumed to equal half of the laboratory reporting limit. If no cPAHs were detected in the associated sample, the maximum laboratory reporting limit for the associated individual cPAH constituents was shown.

Attachment 19.A

Table 2: Summary of Groundwater Analytical Results

Constituent	Sample Location and Sample Date						Groundwater Screening Level[1] (ug/L)
	B1	B2	B3	B4	B5	B6	
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	
Total Petroleum Hydrocarbons (ug/L)							
Diesel Range Organics (TPH-D)	200 U	200 U	200 U	200 U	200 U	200 U	500
Gasoline (TPH-G)	100 U	100 U	100 U	100 U	100 U	100 U	800
Heavy Fuel Oil (TPH-HO)	400 U	400 U	400 U	400 U	400 U	400 U	500
VOCs (ug/L)							
1,2,4-Trimethylbenzene	1.0 U	**3.2**	1.0 U	1.0 U	1.0 U	1.0 U	80
1,3,5-Trimethylbenzene	1.0 U	**1.1**	1.0 U	1.0 U	1.0 U	1.0 U	80
Benzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6
Chloroethane	2.0 U	**6.0**	2.0 U	2.0 U	2.0 U	2.0 U	No Value
Cumene	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	800
Ethylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	31
Ethylene dibromide (EDB)	0.010 U	0.010 U	**0.096**	0.010 U	0.010 U	**0.11**	0.050
n-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	400
n-Propylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	800
p-Isopropyltoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	No Value
sec-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	800
Tetrachloroethylene	1.0 U	1.0 U	1.0 U	1.0 U	**3.4**	1.0 U	2.9
Trichloroethylene	0.40 U	0.40 U	0.40 U	0.40 U	**0.55**	**0.51**	0.70
Xylenes, Total	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1,600
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,1,1-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,1,2-Trichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,1-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,1-Dichloroethylene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
1,1-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2,3-Trichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	Not Calculated
1,2,3-Trichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2,4-Trichlorobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
1,2-Cis-Dichloroethylene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2-Dibromo-3-Chloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2-Dichloroethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,2-Trans-Dichloroethylene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,3-Cis-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,3-Dichloropropane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,3-Trans-Dichloropropene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
2,2-Dichloropropane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
2-Chlorotoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
4-Chlorotoluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Bromobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Bromodichloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Bromoform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Bromomethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
Carbon Tetrachloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Chloroform	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Chloromethane	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated

Attachment 19.A

Table 2: Summary of Groundwater Analytical Results

Constituent	Sample Location and Sample Date						Groundwater Screening Level[1] (ug/L)
	B1	B2	B3	B4	B5	B6	
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	
Dibromochloromethane	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Dichlorodifluoromethane (CFC-12)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
Hexachlorobutadiene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	Not Calculated
Methylene Bromide	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Methylene Chloride	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Methyl-t-butyl ether	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	Not Calculated
Styrene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Tert-Butylbenzene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Toluene	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	Not Calculated
Trichlorofluoromethane (CFC-11)	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
Vinyl Chloride	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	Not Calculated
PAHs/SVOCs (ug/L)							
3&4-Methylphenol coelution	**1.5**	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	No Value
Acenaphthene	0.50 U	**0.70**	0.49 U	**1.2**	0.50 U	0.50 U	30
Acenaphthylene	0.50 U	0.50 U	0.49 U	0.50 U	0.50 U	0.50 U	No Value
Anthracene	0.50 U	0.50 U	0.49 U	0.50 U	0.50 U	0.50 U	100
Benzo(ghi)perylene	0.50 U	0.50 U	0.49 U	0.50 U	0.50 U	0.50 U	No Value
Carbazole	5.0 U	5.0 U	4.9 U	5.0 U	5.0 U	5.0 U	No Value
Fluoranthene	0.50 U	0.50 U	0.49 U	0.50 U	0.50 U	0.50 U	6.0
Fluorene	0.50 U	**0.73**	0.49 U	0.50 U	0.50 U	0.50 U	10.0
Naphthalenes, Total [2]	0.50 U	**12**	0.50 U	0.50 U	0.50 U	0.50 U	160
Phenanthrene	0.50 U	**0.88**	0.49 U	0.50 U	0.50 U	0.50 U	No Value
Phenol	**2.1**	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2,400
Pyrene	0.50 U	0.50 U	0.49 U	0.50 U	0.50 U	0.50 U	8.0
Total cPAHs TEF [3]	0.50 U	0.50 U	0.49 U	0.50 U	0.50 U	0.50 U	0.50
1,2,4-Trichlorobenzene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
1,2-Dichlorobenzene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
1,3-Dichlorobenzene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
1,4-Dichlorobenzene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
2,4,5-Trichlorophenol	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
2,4,6-Trichlorophenol	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
2,4-Dichlorophenol	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
2,4-Dimethylphenol	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
2,4-Dinitrophenol	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
2,4-Dinitrotoluene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
2,6-Dinitrotoluene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
2-Chloronaphthalene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
2-Chlorophenol	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
2-Nitroaniline	5.0 U	5.0 U	4.9 U	5.0 U	5.0 U	5.0 U	Not Calculated
2-Nitrophenol	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
4,6-Dinitro-2-Methylphenol	5.0 U	5.0 U	4.9 U	5.0 U	5.0 U	5.0 U	Not Calculated
4-Bromophenyl phenyl ether	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
4-Chloro-3-Methylphenol	5.0 U	5.0 U	4.9 U	5.0 U	5.0 U	5.0 U	Not Calculated
4-Chloroaniline	5.0 U	5.0 U	4.9 U	5.0 U	5.0 U	5.0 U	Not Calculated
4-Chlorophenyl-Phenylether	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
4-Nitrophenol	5.0 U	5.0 U	4.9 U	5.0 U	5.0 U	5.0 U	Not Calculated
Benzyl Alcohol	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Bis(2-Chloroethoxy)Methane	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Bis(2-Chloroethyl)Ether	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
Bis(2-Ethylhexyl) Phthalate	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Butyl benzyl phthalate	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated

Attachment 19.A

Table 2: Summary of Groundwater Analytical Results

Constituent	Sample Location and Sample Date						Groundwater Screening Level[1] (ug/L)
	B1	B2	B3	B4	B5	B6	
	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	6/3/2020	
Dibenzofuran	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Dibutyl phthalate	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Diethyl phthalate	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Dimethyl phthalate	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Di-N-Octyl Phthalate	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Hexachlorobenzene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Hexachlorobutadiene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Hexachlorocyclopentadiene	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Hexachloroethane	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Hexanedioic Acid, Bis(2-Ethylhexyl) Ester	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Isophorone	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Nitrobenzene	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
N-Nitrosodi-n-propylamine	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
o-Cresol	0.99 U	1.0 U	1.0 U	1.0 U	1.0 U	0.99 U	Not Calculated
Pentachlorophenol	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	Not Calculated
Metals (ug/L)							
Arsenic	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	**9.8**	5.0
Barium	**125**	**56**	**178**	**65**	**8.9**	**9.4**	2,000
Cadmium	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	Not Calculated
Chromium	5.0 U	5.0 U	**11**	5.0 U	5.0 U	5.0 U	100
Lead	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.1
Mercury	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	Not Calculated
Selenium	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50
Silver	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	1.9

Notes:

No Value: a screening level cannot be calculated because no values exist in CLARC (Ecology 2020), Not Calculated: screening level not calculated if constituent was not detected in any media (VOCs and SVOCs only), ug/L: micrograms per liter, U: constituent not detected at the shown reporting limit

Concentrations shown are the average of the duplicate samples, where applicable. If a constituent was detected in only one of the duplicate samples, the average of the laboratory reporting limit and the detected concentration is shown.

Bold compounds were detected at the shown concentration.

Highlighted concentrations exceed than the groundwater as drinking water screening level, but are less than ten times the screening level.

Highlighted concentrations are greater than ten times the groundwater as drinking water screening level (no results are in this category).

[1] Screening level derivations are provided in Appendix B.

[2] Total naphthalene concentrations were calculated by summing the concentrations of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. If one or more constituent was detected in the associated sample, the non-detect constituents were assumed to equal half of the laboratory reporting limit. If no constituents were detected in the associated sample, the maximum laboratory reporting limit for the associated individual constituents was shown.

[3] Total cPAH concentrations were based on the toxicity of benzo(a)pyrene in accordance with WAC 173-340-708(8). Total cPAH concentrations were calculated using MTCA toxicity equivalence factors (TEFs). If one or more cPAH was detected in the associated sample, the non-detect cPAH constituents were assumed to equal half of the laboratory reporting limit. If no cPAHs were detected in the associated sample, the maximum laboratory reporting limit for the associated individual cPAH constituents was shown.

Attachment 19.A

From: Steinweg, Noll E (DFW) <Noll.Steinweg@dfw.wa.gov>
Sent: Monday, August 09, 2021 12:12 PM
To: Nicole Floyd
Subject: RE: West Bay Yards

Apologies for the nearly two week delay here, just back from vacation…

Generally, the critical areas report represents the upland habitats at the site sufficiently (though you should ask Ecology about the wetlands since that's their specialty). However the report does not address macroalgae/eelgrass which may be impacted by the beach fill. For HPA permitting, for this kind of project we will be requiring a submerged aquatic vegetation (SAV) diving survey and likely a intertidal/subtidal shellfish survey to characterize the area of impact waterward of OHW. One of the biggest questions I have is how we balance/value the conversion of subtidal habitat supporting shellfish and SAV to intertidal habitat potentially supporting, among other things, forage fish spawning. A SAV and shellfish survey will be used to make more informed decisions around mitigation for the fill.

The proponent is going to need to do the SAV survey eventually, so may as well include it in this critical areas study so it's complete for the public etc. to review. Our guidance for underwater surveys is SAV-focused and doesn't include shellfish, but shellfish should be included in this survey because of the proposed fill. Feel free to provide my contact info to the proponent/consultant and I can work with them and our shellfish folks to determine what an appropriate shellfish survey would look like. Our SAV survey design guidance can be found here (same as above):
https://wdfw.wa.gov/sites/default/files/publications/00714/wdfw00714.pdf

Thanks,
Noll

Noll Steinweg
Habitat Biologist
Washington Department of Fish and Wildlife
Noll.Steinweg@dfw.wa.gov
360-628-2173 (cell)

From: Nicole Floyd <nfloyd@ci.olympia.wa.us>
Sent: Monday, July 26, 2021 4:26 PM
To: Steinweg, Noll E (DFW) <Noll.Steinweg@dfw.wa.gov>
Subject: RE: West Bay Yards

External Email

Noll,

I know you are headed out soon. I appreciate your response. I am wondering about critical habitats. The applicant submitted a report – critical area study. Did you look at it? Did you find it was satisfactory from a critical habitats perspective? Its 43 MB, so I cannot email it, but it is on the website. Our Critical Area Ordinance looks to WDFW for assistance related to critical habitats. Basically, do you think the report submitted has adequate information?

From: Steinweg, Noll E (DFW) <Noll.Steinweg@dfw.wa.gov>
Sent: Monday, July 26, 2021 3:38 PM
To: Nicole Floyd <nfloyd@ci.olympia.wa.us>; Brandon Clinton <brandon.clinton@usace.army.mil>; Rothwell, Rebecca (ECY) <rebs461@ECY.WA.GOV>
Cc: Lentes, Gwendolen A (DFW) <Gwendolen.Lentes@dfw.wa.gov>
Subject: RE: West Bay Yards

Hi Nicole, please find our comment attached.

Thanks,
Noll

Noll Steinweg
Habitat Biologist
Washington Department of Fish and Wildlife
Noll.Steinweg@dfw.wa.gov
360-628-2173 (cell)

From: Nicole Floyd <nfloyd@ci.olympia.wa.us>
Sent: Thursday, July 8, 2021 2:01 PM
To: Brandon Clinton <brandon.clinton@usace.army.mil>; Rothwell, Rebecca (ECY) <rebs461@ECY.WA.GOV>; Steinweg, Noll E (DFW) <Noll.Steinweg@dfw.wa.gov>
Subject: West Bay Yards

I am working on the West Bay Yards SSDP and would really like your input regarding the proposal. I sent you the NOA, but here is the link to the project website: https://olympiawa.gov/news-and-faqs/construction-news/west-bay-yards.aspx. At the bottom of this website are the submittal documents that were provided by the applicant. There are a couple items I am wanting you to pay specific attention to as you review any number of those documents:

- Are there issues that may arise from this conceptual plan related to your codes/regulations that the applicant should be thinking about now?

- The 15 year phasing plan – will that work with your codes/regulations.
- The restoration work (waterward of OHWM). Its being done in two phases over 15 years. It appears to be converting aquatic land to upland area. I believe this approach is being taken as a way to cap contamination, retain the rip-rap stabilization, and create a more natural shoreline area. Does this work from other jurisdictional perspectives?
- Stormwater – this project is in the City's flow control exempt area (treatment is required), does this work from other jurisdictional perspectives?
- Other – are there other issues you see that need to be addressed?

I am trying to get comments wrapped up by the end of the month, a SEPA determination has not yet been made. I am happy to set up a meeting to discuss once you have had time to look these plans over. It is a very high profile project in Olympia and I want to make sure the proverbial ducks are in a row. Please forward to anyone within your agency…or another agency that you think might have regulatory insight.

I really appreciate your help!

Nicole Floyd, AICP

Principal Planner|City of Olympia
601 4th Ave E.|Olympia, WA 98501
Ph: 360.570.3768|Fax: 360.753.8087
Web: olympiawa.gov

Attachment 19.A

From: Shaun Dinubilo <sdinubilo@squaxin.us>
Sent: Monday, August 16, 2021 1:12 PM
To: Nicole Floyd
Cc: Marygrace Goddu; Sarah
Subject: West Bay Yards-CRD Recommendations

Hello Nicole,

Thank you for allowing me the extension to provide comments for the West Bay yards project. I hope you are having a good day. Due to the nature of this project, we recommend either deep testing using controlled excavation with a flat bucket backhoe (similar to Madrone) or a vibricore testing strategy to identify cultural resources or cultural resource bearing deposits (this might be the better option due to ground water issues). We further recommend that a research design document using either one of these methods is developed. Ideally this research design document needs to take into consideration the variable water table throughout the project area. Please feel free to reach out to me about this recommendation.

Lastly, we have additional comments regarding the cultural resource investigation that was conducted in the project area:

West Bay Yards-CR Appendix C				
Comment Number	Page	Paragraph (Full)	Sentence	Comment
1	1	2	4	Projects such as Madrone, Market Flats, Legion Way, etc. show counter statement. There is no evidence or references that this project would be a to the observed depositional regimes identified in similar environments in Olympia (buried shoreline covered with fill). Based off the previous cultura work and the history of the project area, this would be a prime area for the for deeply buried Cultural resources (early historic sites, wet sites, and pr sites).
2	1	5	1	From reading the Department of Ecology (WDOE)/Grays Corporation 20 remedial report of the Hardel Site (current project area), it does not appea majority of the project site was cleaned up via sediment removal. While contaminated sediments were removed, it's far from the majority. In par both the Pioneer reference and the WDOE 2012 report are accurate, it's un deep the sediments were removed near the 1870s shoreline (somewhere to 16 feet). How is this in relation to the historic fill episodes? Just becau feet of sediment was remediated, doesn't necessarily mean buried cultura sites don't exist, especially if this remediation was limited to the historic
3	3	1	4	How old is the pier? What its association? Was there a site form filled out (if older than 45 years?)?

4	3	1	5	The CRD of the Squaxin Island Tribe has not recommended monitoring for t We have no administrative records of making any formal recommendatio literally just received the project on June 29th. We would be okay with m after some level of deep cultural resource investigation is conducte
5	4	4	General	No mention of the City's IDP ordnance.
6	4	4	General	If this project is going to have federal permitting, might want to mention th Historic Preservation Act
7	4	5	General	The API does not seem to account for indirect effects to cultural resourc construction of a multi-use space with parking garage will cause increases t pedestrian use. The API might want to consider that and the possibly effec historic structures along West bay Drive.
8	9	2	2 to 3	How the sentences are written suggest that the Sa-He-Wa-Mish, Squi-Aitl, S'Hotl=Ma-Mish, and Noo-She-Chatl are not part of the Squaxin Island Trib fact they are.
9	9	2	General	No mention of the Ste-Chass lived along Budd Inlet/Deschutes Estu
10	9	2	General	No mention of the Squaxin who lived along Case Inlet
11	9	General	General	See Madrone report comments about history and ethnography sections, applicable to here as well
12	9	2	General	List only 5 inlets and not all 7 of the Squaxin Island Tribe
13	11	General	General	No discussion about the 1890s fill and dredging work which drastically help modern alignment of the City of Olympia.
14	11	General	General	No mention of the Percivals, the establishment of Capitol Lake, et
15	20	General	General	Is the train platform old enough to be record as a site?
16	General	General	General	Further discussion about the 2012 remediation work is needed for this
17	General	General	General	No discussion about the Geotech results from 2012 or 2020, in particular, about the reported dispositional environment.
18	General	General	General	Add maps showing the historic alignment of the shoreline ranging from the Sheets to the Sandborn maps

Thank you and have a good day,

Shaun Dinubilo
Archaeologist

Attachment 19.A

CR Department
Squaxin Island Tribe
200 S.E. Billy Frank Jr. Way
Shelton, WA 98584
Office Phone: 360-432-3998
Cell Phone: 360-870-6324
Email: sdinubilo@squaxin.us

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

July 27, 2021

Nicole Floyd, Senior Planner
City of Olympia
Community Planning and Development
PO Box 1967
Olympia, WA 98507-1967

Dear Nicole Floyd:

Thank you for the opportunity to comment on the prethreshold consultation for the West Bay Yards Project (21-2854) located at 1210 West Bay Drive Northwest as proposed by West Bay Development Group, LLC. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

SOLID WASTE MANAGEMENT: Derek Rockett (360) 407-6287

All grading and filling of land must utilize only clean fill. All other materials may be considered solid waste and permit approval may be required from the local jurisdictional health department prior to filling. All removed debris resulting from this project must be disposed of at an approved site. Contact the local jurisdictional health department for proper management of these materials.

TOXICS CLEANUP: Thomas Middleton (360) 407-7263

The proposed project is located at a toxic cleanup site where hazardous substances have been released to the environment. The cleanup of this toxic cleanup site is regulated under the Washington Model Toxics Control Act (MTCA), Chapter 70.105D RCW, and implementing regulations contained in Chapter 173-340 WAC. The site has been designated by Ecology as Hardel Mutual Plywood FSID #75128579 and CSID #3704.

The proposed project is also immediately adjacent to BMT Northwest (Reliable Steel) FSID #69923242 and CSID #4076.

As currently known to Ecology, hazardous substances (Petroleum constituents and Polycyclic Aromatic Hydrocarbons) were detected in soil and groundwater on the Hardel Site. During the subsequent investigation, some contamination was noted to be moving

toward Budd Inlet. In 2010, Ecology held a public comment period and approved an interim action. After completing the interim action, groundwater was sampled for one year. No contaminants were found above cleanup levels. The Site was removed from the Hazardous Sites List in 2012. Sediments adjacent to the site were tested and found to contain dioxins/furans higher than average background concentrations in Budd inlet. Phthalates were also found in a sediment sample greater than the sediment quality standards. Additional investigation in the upland portion of the property in 2020 identified motor oil range petroleum hydrocarbons in soil greater than MTCA Method A Cleanup Levels. The nature and extent of these hazardous substances released to the environment has not yet been adequately determined (WAC 173-340-350).

Ecology's Recommendation: Toxic Cleanup Site number 3704 currently presents an unknown level of human health risk to workers at the proposed project, for all visitors, future residents of the property, and to the environment. Ecology recommends that pollution in the environment be cleaned up in compliance with WAC 173-340 prior to residential development. If contamination of soil or groundwater is readily apparent, or is revealed by sampling, the Department of Ecology must be notified. Contact the Environmental Report Tracking System Coordinator at the Southwest Regional Office at (360) 407-6300. For assistance and information about subsequent cleanup and to identify the type of testing that will be required, contact Nick Acklam with the Toxics Cleanup Program at the Southwest Regional Office at (360) 407-6347

WATER QUALITY/WATERSHED RESOURCES UNIT:
Greg Benge (360) 690-4787

Erosion control measures must be in place prior to any clearing, grading, or construction. These control measures must be effective to prevent stormwater runoff from carrying soil and other pollutants into surface water or stormdrains that lead to waters of the state. Sand, silt, clay particles, and soil will damage aquatic habitat and are considered to be pollutants.

Any discharge of sediment-laden runoff or other pollutants to waters of the state is in violation of Chapter 90.48 RCW, Water Pollution Control, and WAC 173-201A, Water Quality Standards for Surface Waters of the State of Washington, and is subject to enforcement action.

Construction Stormwater General Permit:
The following construction activities require coverage under the Construction Stormwater General Permit:

1. Clearing, grading and/or excavation that results in the disturbance of one or more acres **and** discharges stormwater to surface waters of the State; and
2. Clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more **and** discharge stormwater to surface waters of the State.

a) This includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, **and** discharge to surface waters of the State; and

3. Any size construction activity discharging stormwater to waters of the State that Ecology:
   a) Determines to be a significant contributor of pollutants to waters of the State of Washington.
   b) Reasonably expects to cause a violation of any water quality standard.

If there are known soil/ground water contaminants present on-site, additional information (including, but not limited to: temporary erosion and sediment control plans; stormwater pollution prevention plan; list of known contaminants with concentrations and depths found; a site map depicting the sample location(s); and additional studies/reports regarding contaminant(s)) will be required to be submitted. For additional information on contaminated construction sites, please contact Carol Serdar at Carol.Serdar@ecy.wa.gov, or by phone at (360) 742-9751.

Additionally, sites that discharge to segments of waterbodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorous, or to waterbodies covered by a TMDL may need to meet additional sampling and record keeping requirements. See condition S8 of the Construction Stormwater General Permit for a description of these requirements. To see if your site discharges to a TMDL or 303(d)-listed waterbody, use Ecology's Water Quality Atlas at: https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx.

The applicant may apply online or obtain an application from Ecology's website at: http://www.ecy.wa.gov/programs/wq/stormwater/construction/ - Application. Construction site operators must apply for a permit at least 60 days prior to discharging stormwater from construction activities and must submit it on or before the date of the first public notice.

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology
Southwest Regional Office

(GMP:202103511)

cc: Derek Rockett, SWM
Thomas Middleton, TCP
Greg Benge, WQ