



Electronic Copy

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Region Office
PO Box 330316, Shoreline, WA 98133-9716 • 206-594-0000

March 17, 2025

De Len Holbrook
PNEC Corporation
1800 West Katella Avenue
Orange, CA 92867
(holbrookd@scfuels.com)

Re: Technical assistance for the following contaminated Site

Site name: Tosco Bainbridge Island Bulk Plant 1784
Site address: Weaver Ave & Shepard Way NW, Bainbridge Island, WA 98110
Facility/Site ID: 26595127
Cleanup Site ID: 3960
VCP Project ID: NW3070

Dear De Len Holbrook:

On February 3, 2025, the Washington State Department of Ecology (Ecology) received your request for a written opinion regarding the sufficiency of your planned independent cleanup of the Tosco Bainbridge Island Bulk Plant 1784 facility (Site), under the [Voluntary Cleanup Program](#)¹ (VCP). This letter provides our opinion and analysis. We provide this opinion under the authority of the [Model Toxics Control Act](#)² (MTCA), chapter [70A.305](#)³ RCW. This technical assistance is provided under the requirements of WAC [173-340-515](#)⁴(5).

Issue presented and opinion

Does the proposed work plan *Groundwater Non-Potability Demonstration Work Plan, Former Tosco Bainbridge Island Bulk Plant 1784*, dated January 30, 2025 (*Non-Potability Work Plan*) meet the stated objectives with respect to Site data gaps?

¹ <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program>

² <https://apps.ecology.wa.gov/publications/SummaryPages/9406.html>

³ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305>

⁴ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340&full=true#173-340-515>

Yes. Ecology has determined that the work plan is sufficient to provide adequate aquifer data to aid in determining the potability of groundwater at the Site.

Site description

This opinion applies to the Site described here. The Site is defined by the nature and extent of contamination associated with the following release(s):

- Naphthalene, gasoline- (TPH-G), and diesel- and oil-range (TPH-D+O) petroleum hydrocarbons in soil.
- TPH-G and TPH-D+O in groundwater.

Enclosure A includes a Site description, history, and diagrams, as currently known to Ecology.

Note that releases from multiple sites can affect a parcel of real property. At this time, Ecology has no information indicating other sites have affected the parcels associated with this Site.

Basis for our opinion

Ecology bases this opinion on information in the documents listed in **Enclosure B**.

You can request these documents by filing a [public records request](#).⁵ For help making a request, contact the Public Records Officer at recordsofficer@ecy.wa.gov or call (360) 407-6040. Before making a request, check whether the documents are available on the [Site webpage](#).⁶

This opinion is void if anything in the documents is materially false or misleading.

Analysis of the cleanup

Based on our review of the *Non-Potability Work Plan*, Ecology has determined the following about your cleanup.

1. Groundwater non-potability demonstration.

Ecology understands you plan to demonstrate that groundwater at the Site is non-potable. According to MTCA, groundwater is not potable at a Site if the requirements described in WAC 173-340-720(2) are met. Ecology concurs that the *Non-Potability Work Plan* is expected to adequately define the yield of the aquifer per WAC 173-340-720(2)(b)(i). Yield tests will be performed on MW-1 and MW-5 as they fully penetrate the aquifer affected by the releases that make up the Site.

⁵ <https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests>

⁶ <https://apps.ecology.wa.gov/cleanupsearch/site/3960>

Note that the aquifer yield is only one of the required criteria to demonstrate non-potability. In addition to discussion of the aquifer yield, please provide additional discussion of the site-specific factors described in WAC 173-340-720(2) to provide multiple lines of evidence for your demonstration that shallow groundwater at the Site is non-potable.

2. Cleanup Levels.

Provided that you successfully demonstrate that groundwater at the Site is not potable, Ecology may consider alternative cleanup levels for groundwater at the Site. Due to its location adjacent to Eagle Harbor, cleanup levels for TPH-G and TPH-D+O protective of marine waters as defined in [*Implementation Memo No. 23: Concentrations of Gasoline and Diesel Range Organics Predicted to be Protective of Aquatic Receptors in Surface Waters*](#)⁷, published August 2021 may apply:

- TPH-G: 1,700 µg/L
- TPH-D+O: 2,100 µg/L

As discussed in *Implementation Memo No. 23*, these cleanup levels include toxicity values for polar metabolites. Therefore, if they are applicable, it is not necessary to conduct additional analyses with silica gel cleanup to determine the fraction of polar metabolites. If groundwater is shown to be potable, MTCA Method A cleanup levels protective of unrestricted use will be appropriate at the Site (WAC 173-340-720(3); Table 720-1).

3. Steps to NFA Determination.

Following completion of the activities described in the *January 2025 Potability Work Plan*, Ecology recommends the following actions:

- To receive a Site-wide NFA opinion, you must demonstrate that concentrations of Site contaminants in groundwater are below the applicable cleanup levels for four consecutive quarters in all Site monitoring wells. Ecology recommends sampling all Site monitoring wells on a quarterly basis to meet this requirement.

If results from groundwater monitoring wells close to Eagle Harbor and Weaver Creek indicate that concentrations of TPH-D+O exceed the cleanup levels protective of marine receptors, surface water samples will be needed to evaluate this exposure pathway. Ecology's [*Implementation Memorandum No. 16: Developing Conditional Points of Compliance at MTCA Sites where Groundwater Discharges to Surface Water*](#), revised December 2017⁸ has further information on the requirements for this evaluation.

⁷ <https://apps.ecology.wa.gov/publications/summarypages/1909043.html>

⁸ <https://apps.ecology.wa.gov/publications/SummaryPages/1609053.html>

- Ecology understands that you completed a remedial excavation to remove contaminated soil left in place on the eastern sidewall of the above-ground storage tank (AST)/loading rack excavation in 2024. Ecology recommends submitting a report summarizing the results of these remedial activities. The report should include a table and figure showing the location of confirmation samples and any remaining soil contamination at the Site.
- Site analytical data were last uploaded to Ecology's Environmental Information Management (EIM) database in April 2019. Please continue uploading Site data to EIM as it is available. Uploading all Site data generated after 2005 is a requirement for receiving an NFA determination. Resources and information on uploading data to EIM is available on the [EIM Help Center](#)⁹ website.

Limitations of the opinion

Opinion does not settle liability with the state

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion doesn't resolve or alter a person's liability to the state or protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW [70A.305.040](#)(4).¹⁰

Opinion does not constitute a determination of substantial equivalence

To recover remedial action costs from other liable persons under MTCA, one must demonstrate the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts would make that determination. See RCW [70A.305.080](#)¹¹ and WAC [173-340-545](#).¹²

State is immune from liability

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW [70A.305.170](#)(6).¹³

⁹ <http://ecyeim/eimhelp/>

¹⁰ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040>

¹¹ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080>

¹² <https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545>

¹³ <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170>

Contact us for more information

Thank you for choosing to clean up your Site under the VCP. After addressing our comments, you may request another review of your cleanup activities. If you have any questions about this opinion, please contact me at 206-459-6287 or david.unruh@ecy.wa.gov. We look forward to receiving your next submittal or report.

Sincerely,



David Unruh
Site Manager
Toxics Cleanup Program, NWRO

Enclosures (2): A – Site description, history, and diagrams
 B – Basis for the opinion: Reviewed documents list

cc: Emily Blakeway, GHD (emily.blakeway@ghd.com)
 NWRO VCP Coordinator (vcp-nwro@ecy.wa.gov)
 Ecology Project File

Enclosure A

Site description, history, and diagrams

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site

The Site is defined by releases of the following at the southwest corner of the intersection of Weaver Avenue and Shepard Way NW in Bainbridge Island, Kitsap County, Washington (**Figure 1, Figure 2**):

- Gasoline- (TPH-G) and diesel- and oil-range (TPH-D+O) petroleum hydrocarbons, and naphthalene into the Soil.
- TPH-G and TPH-D+O into the Groundwater.

According to MTCA, the Site is defined as all areas where contamination has come to be located. The Site includes two irregularly-shaped tax parcels totaling 4.58 acres (272502-4-005-2001 and 272502-4-006-2000). The source of the releases that constitute the Site is located on parcel 272502-4-005-2001 (the Property). Adjacent parcel 272502-4-006-2000 is owned by the City of Bainbridge Island and includes a recreational area known as Strawberry Plant Park.

Area and Property Description

The Site is located in a residential area in Bainbridge Island. The Property is currently undeveloped. Uses of surrounding properties include the following:

- Single-family residences to the north and east;
- Strawberry Plant Park to the west; and
- Eagle Harbor to the south.

Property History and Current Use

The Property was first developed in 1970 with a bulk petroleum storage facility primarily used for storage and distribution of heating oil. The facility included four above-ground storage tanks (ASTs), a loading rack, and a detention pond. After the property was purchased by Tosco in 1997, the ASTs and loading rack infrastructure were removed from the Site. It remains vacant to the present day.

Sources of Contamination

The source of TPH-G, TPH-D+O, and naphthalene contamination at the Site is the result of spills and leaks from the ASTs and loading rack infrastructure. Initial investigations at the Site in 1997 identified contamination in the vicinity of the ASTs, loading rack, and a detention pond located to the south of the AST area (**Figure 2**).

Physiographic Setting

The Site is located within the Puget Sound Lowland Physiographic Province, a north-south trending structural and topographic depression that is bordered on the west by the Olympic Mountains and on the east by the Cascade Mountains. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock characteristic of a fore-arc environment. It has been filled to the present-day land surface with Pleistocene-aged glacial and nonglacial sediments.

Repeated advances and retreats of the continental glaciers that flowed through the area out of Canada more than 10,000 years ago created the low, undulating plains that are characteristic of the Puget Sound Lowland. Current land surfaces reflect the changes that are directly related to the most recent glacial advance and retreat through the region, known as the Vashon Stade of the Fraser Glaciation.

The Site is located on relatively flat ground at an elevation of approximately 20 feet above mean sea level (amsl), on the north side of Eagle Harbor on Bainbridge Island. The southern edge of the Property boundary abuts Eagle Harbor. Eagle Harbor is a marine embayment tributary to Puget Sound.

Surface/Storm Water System

Stormwater runoff at the Site disperses via sheet flow to the ground where it runs off to surface water or infiltrates to the subsurface. Historically, runoff from impervious surfaces at the Site was directed to the stormwater detention pond (**Figure 2**). An outfall from the pond extends south to Eagle Harbor, located approximately 175 feet south of the Site. Weaver Creek, a small perennial stream, is located approximately 90 feet west of the Site.

Ecological Setting

The Property and surrounding properties are zoned for single family residential use. Land surfaces on the Property are undeveloped and vegetated. Strawberry Plant Park to the west is also relatively undeveloped. It includes a small parking area and walking trails. Weaver Creek is listed as a protected habitat for threatened [Puget Sound Coho salmon](#)¹⁴. Properties to the north and east are developed with single-family homes.

Geology

The [geologic map](#)¹⁵ of the area indicates that the Site is underlain by Vashon Till. The Vashon Till is a dense diamict with varying amounts of sand, silt, and gravel. Boring logs for explorations completed at the Site indicate that the Property is underlain by fill from the ground surface to approximately 4 feet below ground surface (bgs). Fill is underlain by deposits of gravelly and sandy silt with intermittent layers of sands to the maximum explored depth of 15 feet bgs, interpreted to be Vashon Till (**Figure 3**).

Groundwater

From 2001 to 2022, a total of nine monitoring wells were installed at the Site (MW-1, MW-2, MW-2A, MW-3 to MW-7, and RW-1; **Figure 2, Figure 4**). The wells are installed to a maximum depth of approximately 15 feet bgs. Depth to groundwater ranges from 2.05 to 14.37 feet bgs (26.57 to 9.73 feet elevation NAVD88¹⁶). Groundwater flow at the Site is directed to the south and southwest toward Eagle Harbor (**Figure 5**).

¹⁴ <https://wdfw.wa.gov/species-habitats/species/oncorhynchus-kisutch#desc-range>

¹⁵ https://ngmdb.usgs.gov/Prodesc/proddesc_96385.htm

¹⁶ North American Vertical Datum of 1988

Water Supply

Drinking water in the vicinity of the Property is supplied by the City of Bainbridge Island. The City of Bainbridge Island sources its water from the Bainbridge Island Aquifer System, a Federal sole-source aquifer designated by the USEPA in 2013. Three aquifer intervals make up the bulk of the drinking water production:

- The Semi-Perched Aquifer contains 25% of production wells. Wells are completed from 100 to -20 feet amsl.
- The Sea Level Aquifer is the most widely used aquifer, with 53% of production wells completed in this interval. Most wells are completed at elevations of 40 to -230 feet amsl.
- The Fletcher Bay Aquifer is the deepest productive aquifers. Wells in this interval are screened from -690 to -1,010 feet amsl. Although only 1% of wells are completed in this interval, they make up 30% of the total water production.

The nearest City production wells to the Site are the Head of the Bay Wells, completed in the Sea Level Aquifer, located approximately 0.5 miles from the Site. Two privately operated Group A wells are located approximately 0.4 miles to the south across Eagle Harbor. They supply a combined total of 39 connections. They are screened over 10-foot intervals from 130 to 149 feet bgs in the Sea Level Aquifer.

No wellhead time-of-travel protection zones for public supply wells overlap the Site boundaries.

Release and Extent of Contamination

Pre-remedial Conditions

Soil

Investigations at the Site began in 1997 following the sale of the Property. A total of seven hand auger borings were advanced to depths from 1 to 5 feet bgs (HA-1 to HA-7; **Figure 6**). Soil samples collected from HA-3 and HA-5 through HA-7 contained TPH-D above the Method A cleanup level. Ten additional borings were advanced at the Site to a maximum depth of 11 feet bgs in December of 1999 (SB-1 to SB-10; **Figure 6**). Soil samples collected at depths ranging from 3 to 7 feet bgs from borings SB-3 to SB-5 and SB-7 contained TPH-G above the Method A cleanup level. TPH-D exceeded the Method A cleanup level in soil samples collected from SB-3.

Groundwater

Groundwater samples were collected from temporary wells installed in SB-1 to SB-3 and SB-7 to SB-10. Concentrations of TPH-D were above the Method A cleanup level in groundwater samples collected from SB-3 and SB-7 through SB-10. Groundwater samples collected from SB-3 and SB-7 also contained TPH-G above the Method A cleanup level.

Remedial Actions

2000 and 2001 Remedial Excavations

Following characterization activities described above, two excavations were advanced on the Property to remove soil contaminated with TPH-G, TPH-D+O, and naphthalene (**Figure 6, Figure 7**). In June 2000, on the northeast side of the detention pond, approximately 90 cubic yards of soil were excavated to a maximum depth of 6 feet bgs. Excavated soils were transported off site for treatment at a permitted facility. Four soil samples collected from the base of the excavation did not contain TPH-G or TPH-D+O above the Method A cleanup levels.

An excavation was advanced in the vicinity of the ASTs and loading racks in June 2001 (**Figure 6, Figure 7**). Approximately 400 cubic yards of contaminated soil were removed to a maximum depth of approximately 12 feet bgs and transported off site for disposal. Groundwater was encountered in the excavation at a depth of approximately 7 feet bgs. Approximately 2,600 gallons of water were removed from the excavation and transported off site for disposal. Three east-west-trending trenches were added to the bottom of the excavation to accommodate installation of piping to distribute amendments to treat contaminated groundwater.

Prior to backfilling of the excavation, oxygen-releasing compound and fertilizer were applied to the bottom of the excavation and mixed into a layer of clean sand and gravel added to the bottom of the excavation. Following backfilling of the excavation, a dilute hydrogen peroxide solution was pumped through the three trenches at low pressure on “several occasions” from 2001 to 2003.

A total of 16 soil confirmation samples were collected from the sidewalls and bottom of the two excavations in 2001 (**Figure 7**). Analytical results from samples EWALL-N-5', NWALL-E-6', WW-N-7', EWALL-MID-10', WW-MID-10', EWALL-S-8', WW-PIPES-8', and WW-S-9' contained TPH-G or TPH-D+O above their respective Method A cleanup levels. The remaining soil samples did not contain Site contaminants above their respective Method A cleanup levels.

In June 2001, five permanent monitoring wells were installed at the Site (MW-1 to MW-5; **Figure 2, Figure 5**). Soil samples were collected from each boring at 5-foot intervals. The soil sample collected from MW-2 at 10 feet bgs contained TPH-G above the Method A cleanup level. Groundwater samples were collected from Site monitoring wells on a quarterly basis from June 2001 to December 2002. Groundwater samples collected from MW-2 during this time regularly exceeded the Method A cleanup levels for TPH-G and TPH-D+O. Additional injections of dilute hydrogen peroxide solution into the perforated pipes in the excavation took place from September to November 2002.

2003 Remedial Excavation

Based on the results of soil sampling in June 2001, an additional remedial excavation was advanced in March 2003 in the area of MW-2. MW-2 was decommissioned and removed during the excavation. The limits of the 2001 excavation were extended westward toward the property boundary. Approximately 40 cubic yards of contaminated soil were excavated and removed from the Site. Sidewall samples collected from the west sidewall on the property boundary containing TPH-G above

the Method A cleanup level remained at depths of 7 and 8 feet bgs. The soil sample from 7 feet bgs also contained TPH-D above the Method A cleanup level.

Prior to backfilling of the excavation, the limits of the excavation were treated with oxygen-releasing compound and fertilizer to promote natural degradation of petroleum hydrocarbons. After backfilling was completed, monitoring wells MW-2A and RW-1 were installed near the west property boundary and in the center of the 2001 excavation, respectively. A total of 12 gallons of dilute hydrogen peroxide and fertilizer solution were added to MW-2A and RW-1 in March 2003.

An additional seven borings were installed at the Site in February 2005 (B-1 to B-7; **Figure 6**). Soil samples collected from B-2 and B-5 to B-7 at depths of 7-8 feet bgs contained TPH-G above the Method A cleanup level. Diesel-range TPH was also found above the Method A cleanup level in the sample collected from 8 feet bgs from B-5. Samples collected from the remaining borings did not exceed the Site cleanup levels.

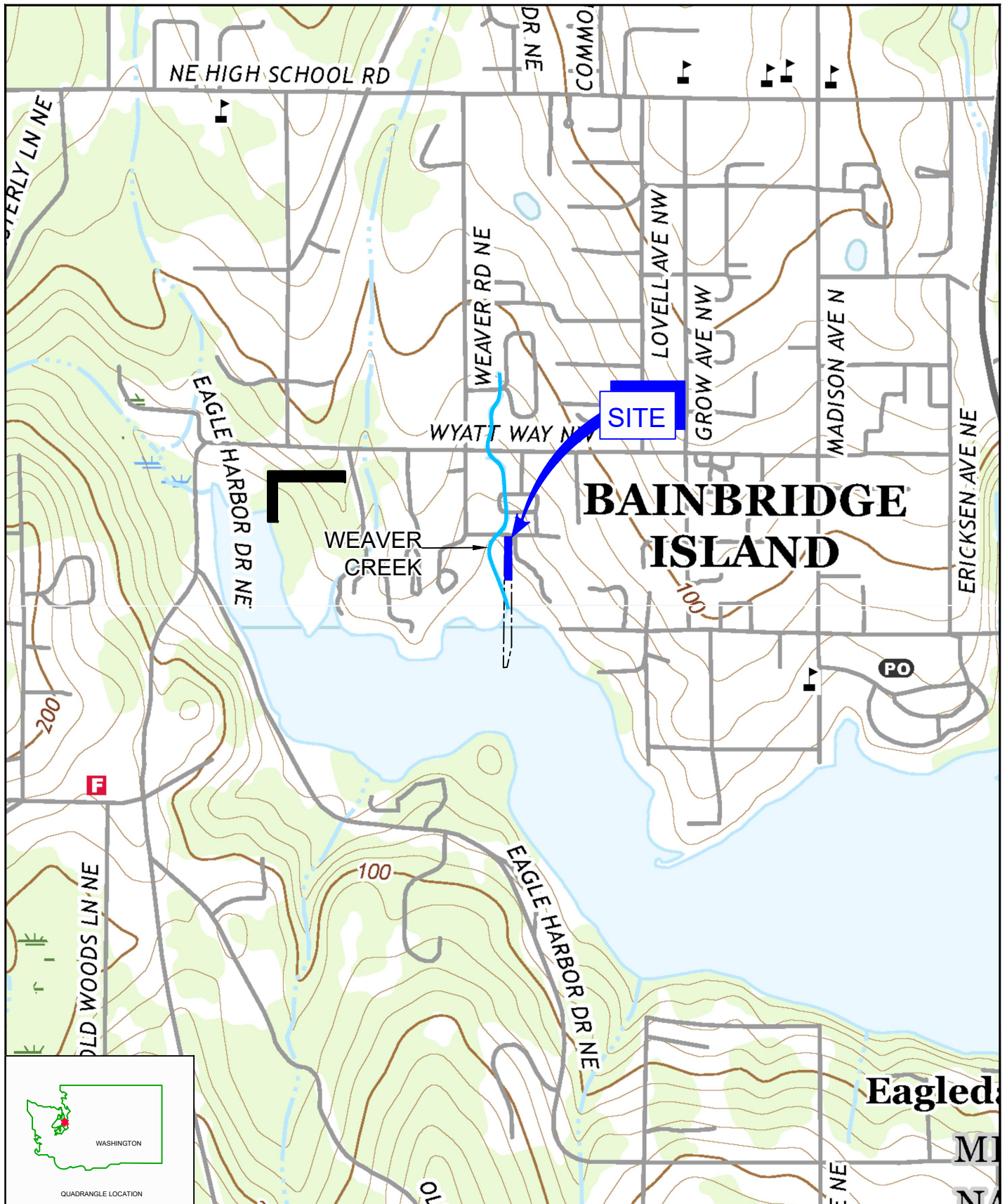
Groundwater samples were collected on a roughly quarterly basis from MW-1, MW-2A, and MW-3 to MW-5 from 2001 to 2007 and from 2014 to 2016, and annually in 2017 and 2018. Analytical results indicated that groundwater from MW-2A and MW-5 regularly exceeded the Method A cleanup level for TPH-D+O. Groundwater samples collected from MW-4 in September 2006, August 2014, and December 2018 also exceeded the Method A cleanup level for TPH-D+O. Groundwater samples from the remaining monitoring wells did not exceed the Method A cleanup level.

In December 2018, an additional 18 borings were advanced at the Site to assess the extent of remaining contaminated soil (GB-1 to GB-18; **Figure 6**). A soil sample collected from GB-3 at a depth of 8 feet bgs contained TPH-D+O above the Method A cleanup level. Elevated concentrations of TPH-D+O were identified in GB-2, GB-4, GB-5, GB-8, GB-10, GB-11, and GB-13 (**Figure 6**), although below the Method A cleanup level. Eight borings were installed in October 2022 to further characterize soil in these areas (DP1 to DP6, MW-6, MW-7; **Figure 8**). Soil samples collected from DP2, DP3, and DP5 at depths from 3 to 6 feet bgs contained TPH-G and TPH-D+O above the Method A cleanup levels.

2024 Remedial Excavation

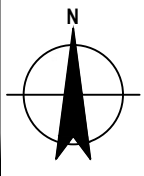
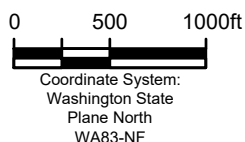
Based on the sampling results from DP1 to DP6, an additional excavation was advanced in this area to remove contamination in 2024. The details of the excavation including excavated volume, final areal extent, and performance monitoring results have not yet been made available to Ecology.

Groundwater samples were collected from MW-1, MW-2A, and MW-3 to MW-7 intermittently from March 2019 to December 2024. Groundwater samples collected from MW-6 and MW-7 regularly contained TPH-D and/or polar metabolites above the Method A cleanup level during this period.



Source: USGS Quadrangle Map, Suquamish and Bremerton East, WA 2017.

Enclosure A Figure 1



LEGEND

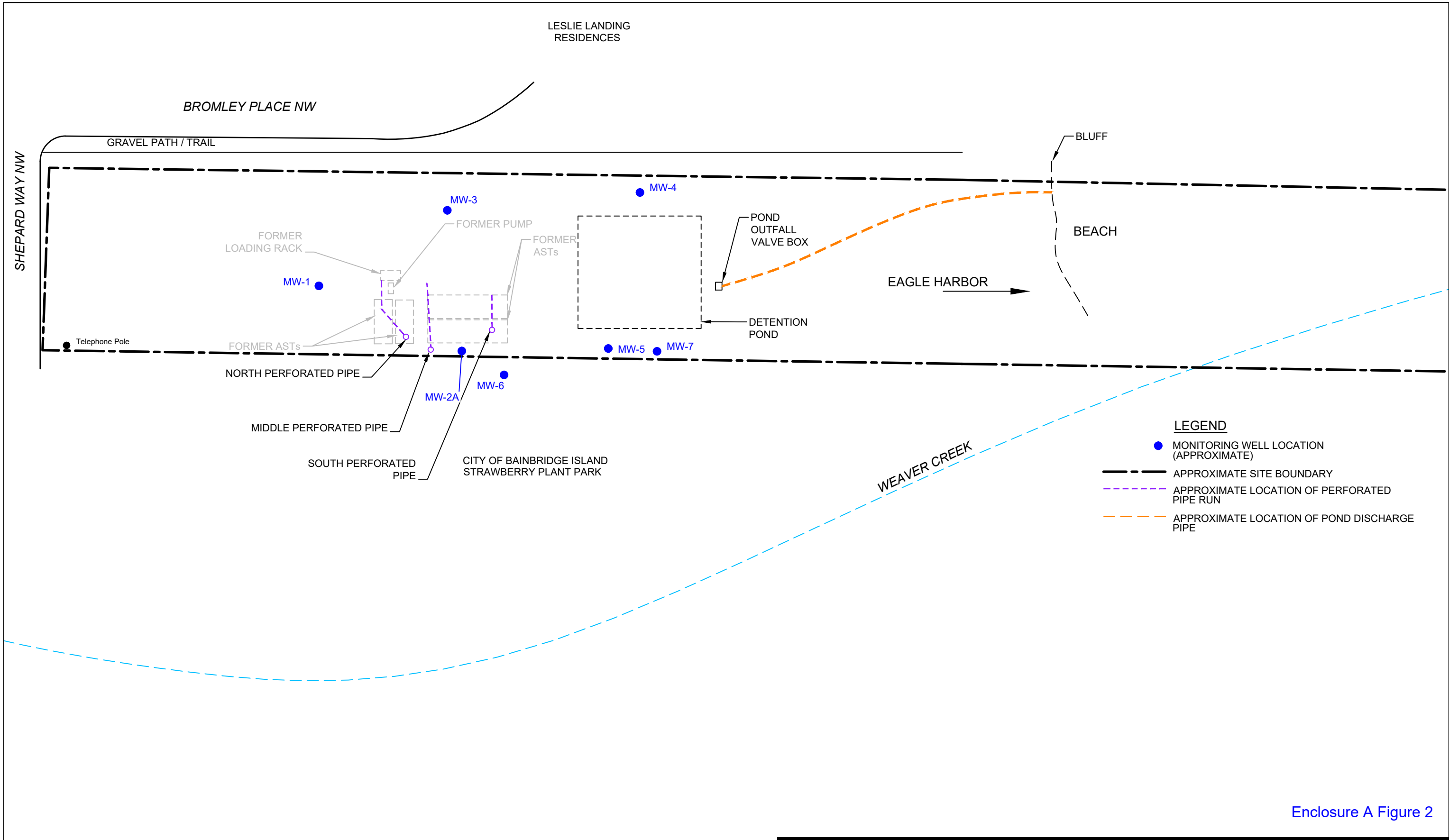


FORMER TOSCO BULK PLANT 1784
WEAVER AVENUE AND SHEPARD WAY NW
BAINBRIDGE ISLAND, WASHINGTON

12564227
Oct 31, 2022

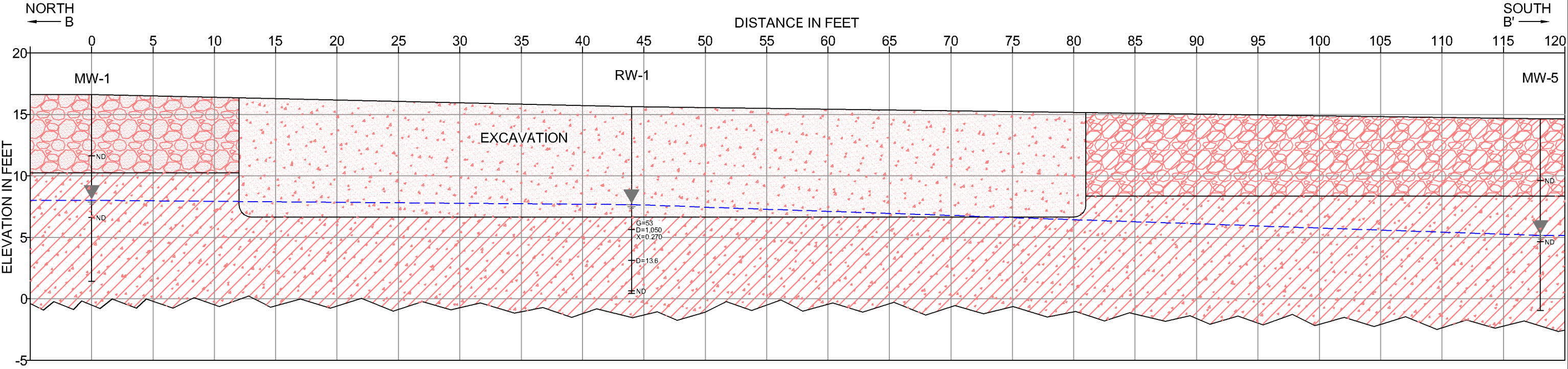
VICINTIY MAP

FIGURE 1



Enclosure A Figure 2

0 15 30ft Coordinate System: Washington State Plane North WA83-NF		FORMER TOSCO BULK PLANT 1784 WEAVER AVENUE AND SHEPARD WAY NW BAINBRIDGE ISLAND, KITSAP COUNTY, WASHINGTON SITE PLAN	Project No. 12564227 Date October 2022 FIGURE 2
---	--	--	--



SOIL SAMPLE ANALYTICAL RESULTS (MILLIGRAMS PER KILOGRAMS)

G = GASOLINE-RANGE TPH
D = DIESEL-RANGE TPH
O = OIL-RANGE TPH
B = BENZENE
T = TOLUENE
E = ETHYLBENZENE
X = XYLENES
TPH = TOTAL PETROLEUM HYDROCARBONS
ND = NOT DETECTED

LEGEND

FILL (GRAVELLY SAND (SW, SP))

GRAVELLY SAND WITH SILT (SP)

GRAVELLY SILT WITH SAND/
SANDY SILT WITH GRAVEL/
SILT WITH GRAVEL (ML)

SILTY GRAVEL WITH SAND (GM)

DEPTH TO GROUNDWATER
OBSERVED IN WELLS
JULY 7, 2016

INFERRED GROUNDWATER
ELEVATION JULY 7, 2016

APPROXIMATE SCALE IN FEET

Project Mng:	MDN	Project No.	81167198
Drawn By:	AMP	Scale:	AS SHOWN
Checked By:	SD	File No.	Exhibit 4
Approved By:	MDN	Date:	November 2016

Terracon
Consulting Engineers and Scientists

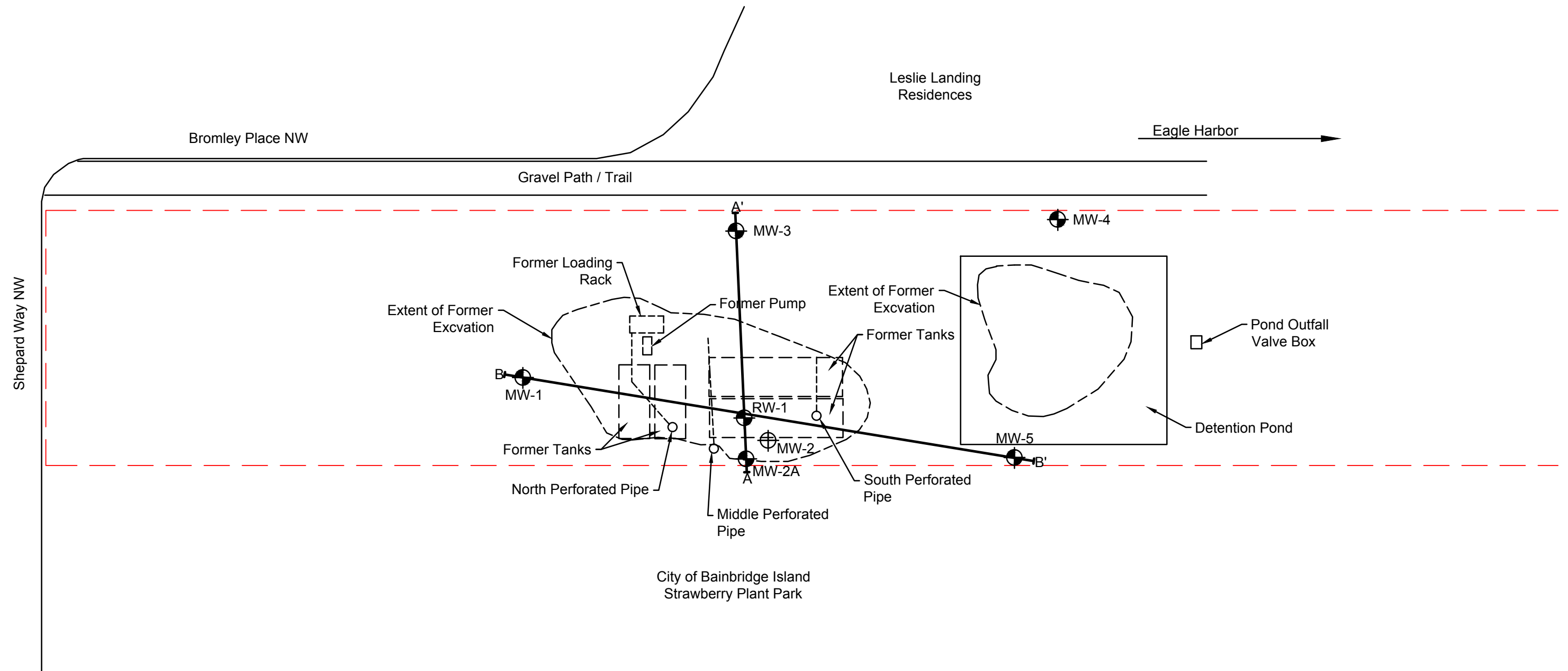
21905 64th Avenue W, Ste 100 Mountlake Terrace, WA 98043
PH. (425) 771-3304 FAX. (425) 771-3549

CROSS SECTION B-B'

Former PNEC Bulk Petroleum Facility
Shepard Way NW & Bromley Place NW
Bainbridge Island, Kitsap County, Washington

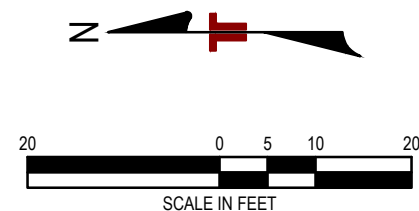
EXHIBIT

4



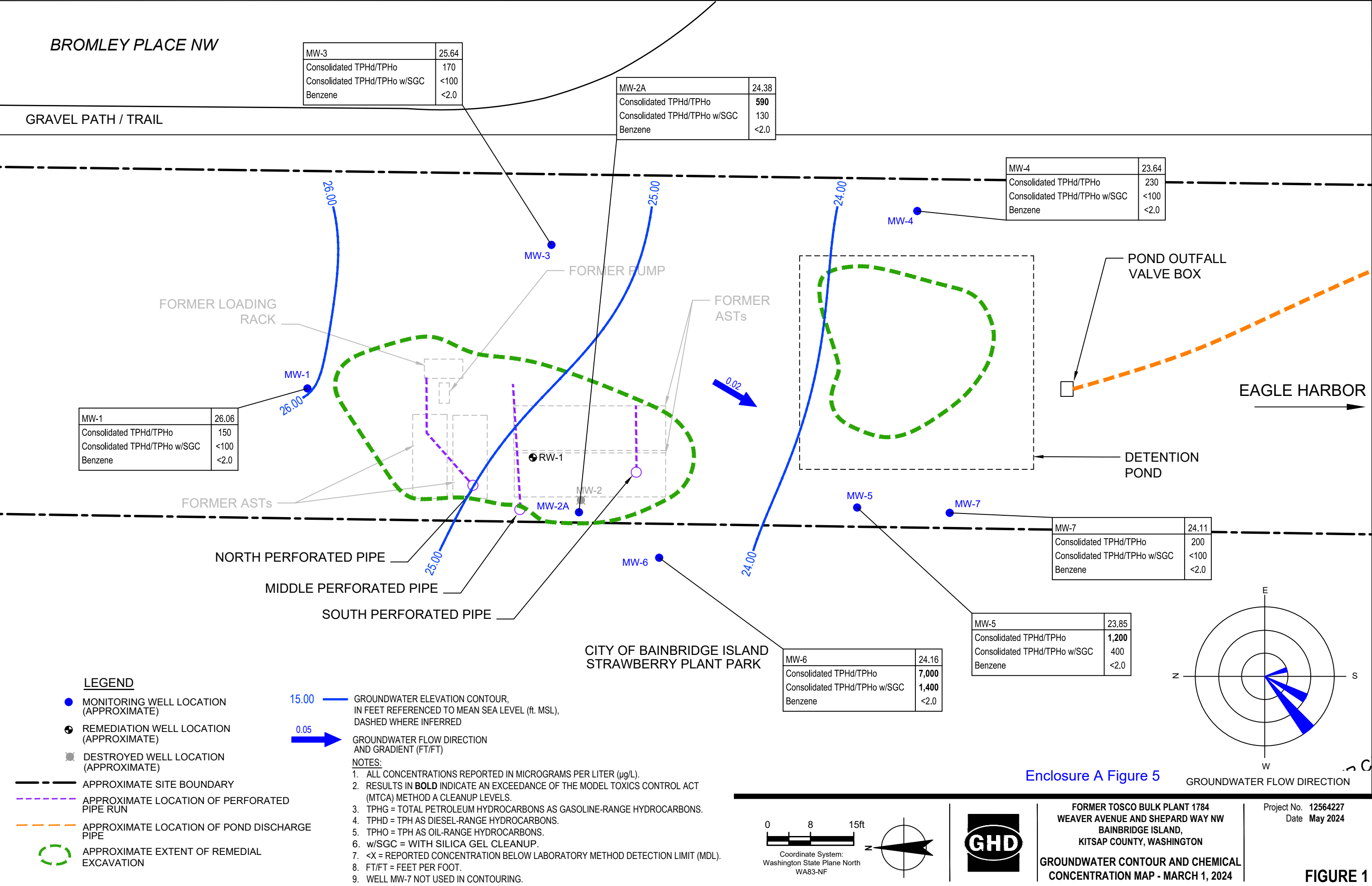
LEGEND:

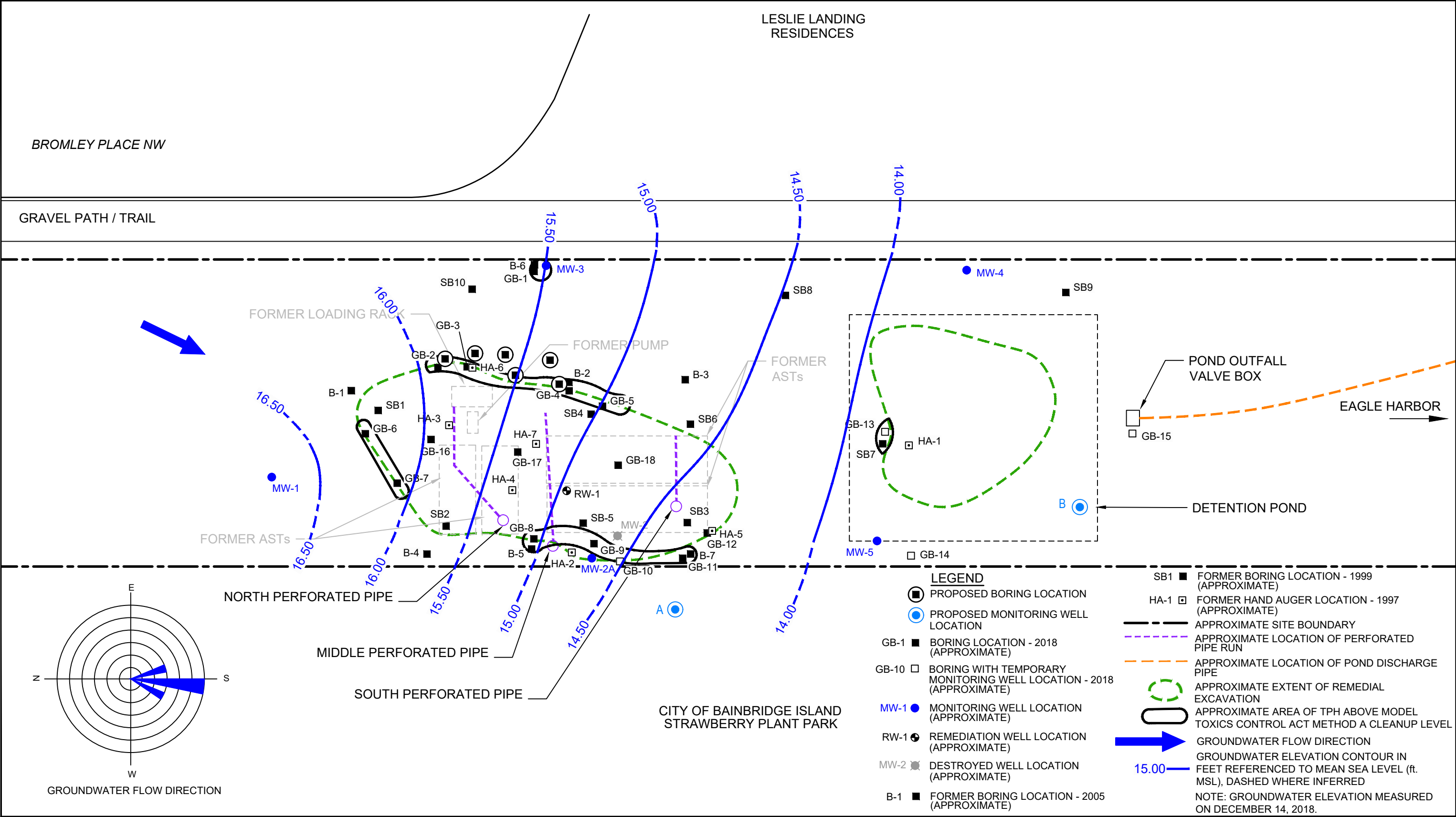
- APPROXIMATE SITE BOUNDARY
- MONITORING WELL NUMBER AND APPROXIMATE LOCATION
- FORMER MONITORING WELL LOCATION
- APPROXIMATE LOCATION OF CROSS-SECTION



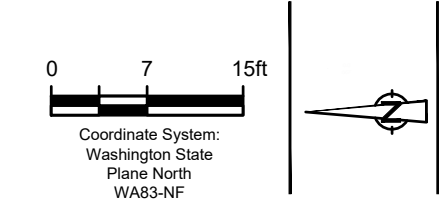
Enclosure A Figure 4

Project Mng'r: MDN		Project No. 81167198		Terracon Consulting Engineers and Scientists 21905 64th Avenue W, Ste 100 Mountlake Terrace, WA 98043 PH. (425) 771-3304 FAX. (425) 771-3549	SITE DIAGRAM		EXHIBIT
Drawn By: SAB/RMS		Scale: AS SHOWN			Former PNEC Bulk Petroleum Facility Shepard Way NW & Bromley Place NW		2
Checked By: MDN		File No. Exhibit 2			Bainbridge Island, Kitsap County, Washington		
Approved By: MYW		Date: November 2016					





Source: Terracon Consulting Engineers and Scientists Site Diagram dated Sept 2017 and Proposed Boring Location Map dated Jan 2018.



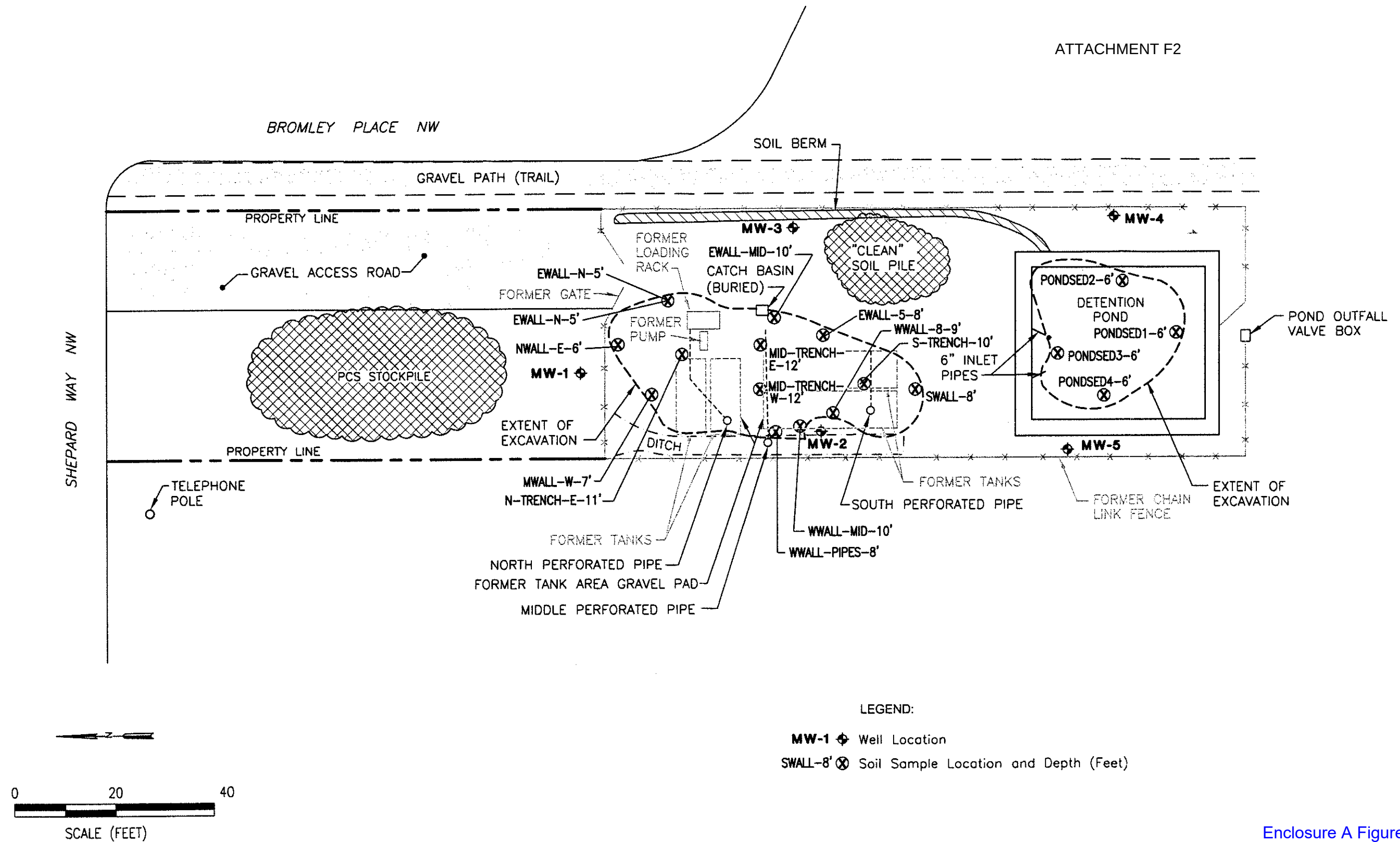
FORMER TOSCO BULK PLANT 1784
WEAVER AVENUE AND SHEPARD WAY NW
BAINBRIDGE ISLAND, KITSAP COUNTY, WASHINGTON

Enclosure A Figure 6

11187604-18.01
Oct 27, 2020

DETAILED SITE PLAN

FIGURE 3



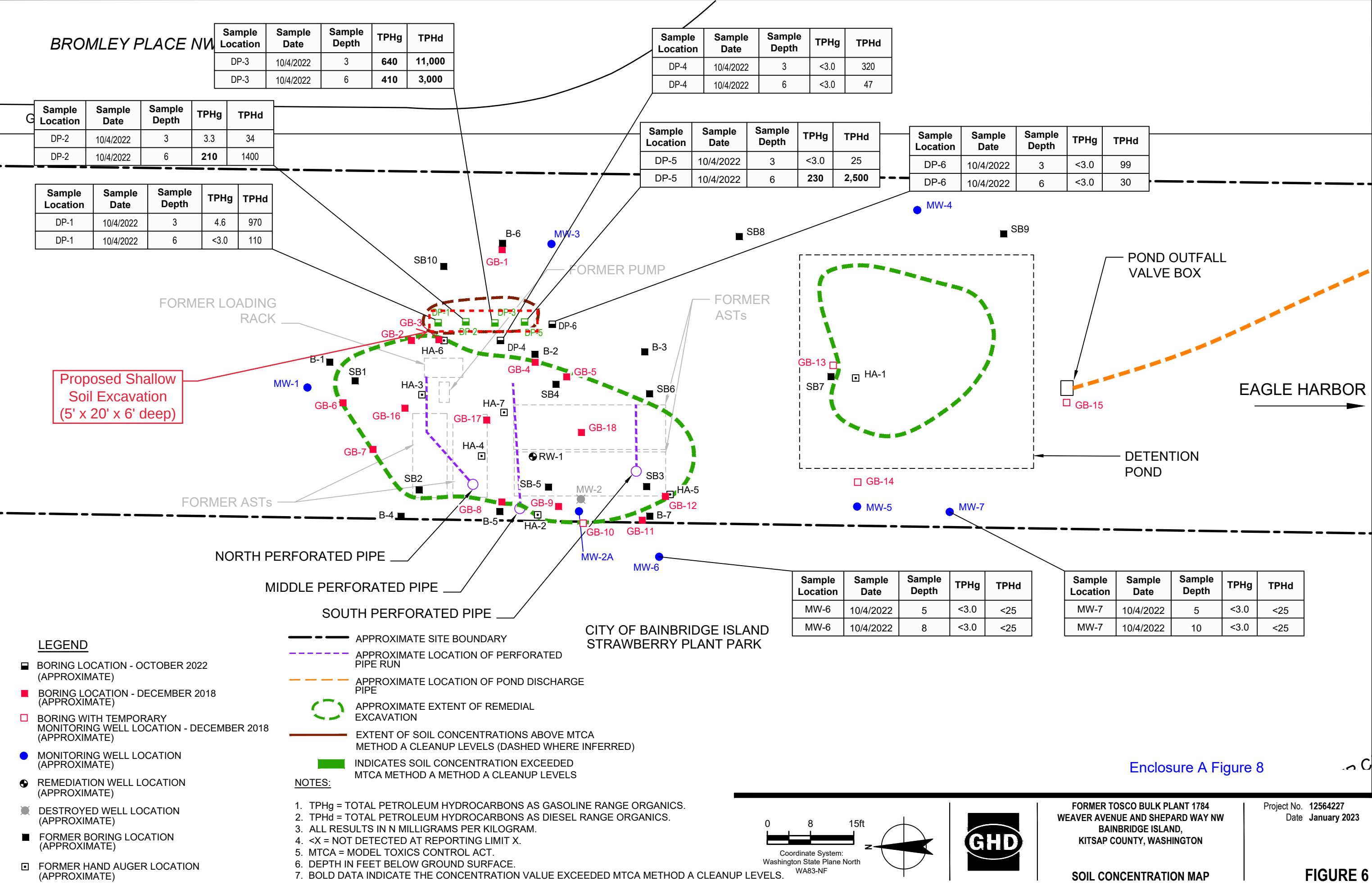
SOURCE: PACIFIC ENVIRONMENTAL GROUP, INC.

NOLL
Environmental, Inc.

DATE:	8-01-01
DESIGN BY:	
DRAWN BY:	LSP
CHECKED BY:	
SCALE:	1=1
PROJ. NO.	99-02-011
FILE:	TOSCO-1783A-F3

Figure 3
FORMER TOSCO BULK PLANT 1783A
WEAVER AVENUE
BAINBRIDGE ISLAND, WASHINGTON
SOIL EXCAVATION MAP

Enclosure A Figure 7



Enclosure B

Basis for the opinion: Reviewed documents list

1. GHD, *Technical Memorandum, Former Tosco Bainbridge Bulk Plant 1784 – NW3070, Groundwater Non-Potability Demonstration Work Plan*, January 30, 2025.
2. Ecology, *Tosco Bainbridge Island Bulk Plant – Technical Assistance Re: Potability Demonstration, Tosco Bainbridge Island Bulk Terminal*, July 1, 2024.
3. Ecology, *Tosco Bainbridge Island Bulk Terminal, Technical Assistance on Proposed Remedial Investigation*, February 15, 2023.
4. Ecology, *Tosco Bainbridge Island Bulk Terminal, Technical Assistance on RI Work Plan Addendum*, April 13, 2021.
5. GHD, *Addendum to Remedial Investigation Work Plan, Former Tosco Bainbridge Bulk Plant 1784, Weaver Avenue and Shepard Way Northwest, Bainbridge Island, Washington*, January 15, 2021.
6. Ecology, *Re: Opinion Pursuant to WAC 173-340-515(5) on Remedial action for the following Hazardous Waste Site: Tosco Bainbridge Island Bulk Plant 1784*, August 5, 2020.
7. GHD, *Remedial Investigation Work Plan, Former Tosco Bainbridge Bulk Plant 1784, Weaver Avenue and Shepard Way Northwest, Bainbridge Island, Washington*, May 4, 2020.
8. GHD, *Additional Soil, Groundwater, and Sediment Sampling Report, Former Tosco Bainbridge Bulk Plant 1784, Weaver Avenue and Shepard Way Northwest, Bainbridge Island, Kitsap County, Washington*, November 22, 2019.
9. Ecology, *Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site: Tosco Bainbridge Island Bulk Plant 1784*, August 2, 2018.
10. Terracon Consultants, Inc (Terracon), *Work Plan for Additional Soil, Groundwater, and Sediment Sampling, Former Tosco Bainbridge Island Bulk Plant 1784, Weaver Avenue & Shepard Way NW, Bainbridge Island, Kitsap County, Washington*, May 1, 2018.
11. Terracon, *Response to Ecology July 25, 2017 Opinion Letter, Former Tosco Bainbridge Island Bulk Plant 1784, Weaver Avenue & Shepard Way NW, Bainbridge Island, Kitsap County, Washington*, October 12, 2017.
12. Terracon, *Groundwater Monitoring Report: July & November 2016 and February 2017*, September 25, 2017.
13. Ecology, *Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site, Tosco Bainbridge Island Bulk Plant 1784*, July 25, 2017.
14. Terracon, *VCP Submittal Addendum, Tosco Bainbridge Island Bulk Plan 1784, Weaver Ave & Shepard Way NW, Bainbridge Island, Washington*, May 12, 2017.
15. Terracon, *Site Remedial Action and Monitoring Summary Report, PNEC Corp Former Bulk Petroleum Facility, Shepard Way NW & Bromley Place NW, Bainbridge Island, Kitsap County, Washington*, November 18, 2016.

16. Terracon, *Groundwater Monitoring Report: April 2016, PNEC Corp Former Bulk Petroleum Facility, Shepard Way NW & Bromley Place NW, Bainbridge Island, Kitsap County, Washington, May 23, 2016.*
17. Terracon, *Groundwater Monitoring Report: February 2016, PNEC Corp Former Bulk Petroleum Facility, Shepard Way NW & Bromley Place NW, Bainbridge Island, Kitsap County, Washington, April 14, 2016.*
18. Terracon, *Groundwater Monitoring Report, April and July 2015, PNEC Corp Former Bulk Petroleum Facility, Shepard Way NW & Bromley Place NW, Bainbridge Island, Kitsap County, Washington, August 21, 2015.*
19. Terracon, *Remedial Treatment Report: January 2015, PNEC Corp Former Bulk Petroleum Facility, Shepard Way NW & Bromley Place NW, Bainbridge Island, Kitsap County, Washington, April 2, 2015.*
20. Terracon, *Groundwater Monitoring Report: August 2014, PNEC Corp Former Bulk Petroleum Facility, Shepard Way NE and Bromley Place NE, Bainbridge Island, Kitsap County, Washington, September 30, 2014.*
21. Secor International Incorporated (Secor), *Groundwater Monitoring Report, Second Quarter 2007, October 5, 2007.*
22. Ecology, *Further Action Determination under WAC 173-340-515(5) for Hazardous, Waste Site Tosco Bainbridge Island Bulk Plant 1784, May 16, 2007.*
23. Ecology, *Notification of Removal from the Voluntary Cleanup Program due to Inactivity, May 16, 2007.*
24. Secor, *Groundwater Monitoring Report, Fourth Quarter 2006, January 22, 2007.*
25. Ecology, *Notification of Pending Inactive Determination Status for Hazardous Waste Site: Tosco Bainbridge Island Bulk Plant 1784, November 15, 2006.*
26. Secor, *Groundwater Monitoring Report, Third Quarter 2006, November 7, 2006.*
27. Secor, *Groundwater Monitoring Report, Fourth Quarter 2005, March 2, 2006.*
28. Secor, *Groundwater Monitoring Report, Third Quarter 2005, December 9, 2005.*
29. Secor, *Groundwater Monitoring Report, Second Quarter 2005, October 21, 2005.*
30. Secor, *Work Plan for Additional Soil Excavation, Conoco Phillips Site No. 0961, Shepard Way NW and Bromley Place NW, Bainbridge Island, Washington, November 8, 2005.*
31. Secor, *Groundwater Monitoring Report, Second Quarter 2005, October 21, 2005.*
32. Secor, *Groundwater Monitoring Report, Fourth Quarter 2004, February 25, 2005.*
33. Secor, *Groundwater Monitoring Report, Third Quarter 2004, December 20, 2004.*
34. Secor, *Groundwater Monitoring Report, Second Quarter 2004, August 23, 2004.*

35. Secor, *Groundwater Monitoring Report, First Quarter 2004*, July 4, 2004.
36. Secor, *Groundwater Monitoring Report, Fourth Quarter 2003*, February 4, 2004.
37. Noll Environmental, Inc. (Noll), *Summary of Groundwater Monitoring Activities – September 2003*, November 7, 2003
38. Noll, *Summary of Groundwater Monitoring Activities – June 2003*, October 1, 2003.
39. 34. Noll, *Summary of Additional Soil Excavation and Groundwater Monitoring Activities, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, July 1, 2003.
40. Noll, *Summary of Groundwater Monitoring Activities – December 2002 & January 2003, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, March 7, 2003.
41. Noll, *Groundwater Sampling Results for Conference Call Discussion, Former Tosco/Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, July 3, 2002.
42. Noll, *Summary of Groundwater Monitoring Activities – March 2002, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, April 16, 2002.
43. Noll, *Summary of Groundwater Monitoring Activities – December 2001*, January 14, 2002.
44. Noll, *Summary of Groundwater Monitoring Activities – September 2001, Former Unocal Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, October 9, 2001.
45. Noll, *Summary of Soil Excavation and Groundwater Monitoring Activities, Former Tosco Bulk Plant 1784, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, September 4, 2001.
46. Noll, *Request for Extension to Grading Permit No. 8084 for Site Cleanup Work, Former Tosco Bulk Heating Oil Storage Facility, SW Corner of Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, April 30, 2001.
47. Noll, *Request for Grading Permit to Conduct Site Cleanup Work, Former Tosco Bulk Heating Oil Storage Tank Facility, SW Corner of Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, August 22, 2000.
48. Ecology, *Letter Re: Independent Remedial Action, Former Tosco Bulk Plant #1784, Weaver Avenue, Bainbridge Island, WA*, August 7, 2000.
49. Bremerton Kitsap County Health District, *Initial Investigation Referral*, April 6, 2000.
50. Noll, *Work Plan for Soil Removal, Groundwater Treatment and Well Installation, Former Tosco/Unocal Bulk Plant No. 1784, Bainbridge Island, WA*,.
51. Tosco Refining Company (Tosco), *Notice of Environmental Remedial Action*, March 20, 2000.

52. Tosco, *Voluntary Cleanup Program Application*, March 17, 2000.
53. Noll, *Summary of Additional Site Assessment Activities, Pacific (Former Tosco) Bulk Storage Facility – Weaver Road, SW Corner – Shepard Way NW & Bromley Place NW, Bainbridge Island, WA*, January 24, 2000.
54. Pacific Environmental Group, Inc., *Soil Investigation, Pacific Coast Energy Company Facility, Weaver Road, Bainbridge Island, Washington*, October 15, 1997.