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Northwest Region Office
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October 28, 2022

Daniel Whitman
Whitman Environmental Sciences
6812 16th Avenue NE
Seattle, WA 98115
(whitenviro@yahoo.com)

Re: No Further Action opinion for the following contaminated Site

- **Site Name:** Viking Freight Systems (Former FedEx Freight Terminal)
- **Site Address:** 18221 E Valley Highway, Kent WA 98032
- **Facility/Site No:** 98241454
- **Cleanup Site ID No:** 11300
- **VCP Project No.:** NW2587

Dear Daniel Whitman:

The Washington State Department of Ecology (Ecology) received your request for an opinion regarding the sufficiency of your independent cleanup of the Viking Freight Systems facility (Site) under the Voluntary Cleanup Program (VCP).[1] This letter provides our opinion and analysis. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70A.305 RCW.[2]

Opinion

Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

[1] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Voluntary-Cleanup-Program
[2] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

Ecology bases this opinion on an analysis of whether the remedial action meets the substantive requirements of MTCA and its implementing regulations, which are specified in Chapter 70A.305 RCW and Chapter 173-340 WAC[3] (collectively called "MTCA").

Site Description

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

- Total petroleum hydrocarbons as gasoline (TPH-G), diesel (TPH-D), and oil (TPH-O) range organics, and benzene, ethylbenzene, toluene, and xylenes (BETX) in Soil and Groundwater.

Enclosure A includes a Site description, history, and diagrams.

Please note that releases from multiple sites can affect a parcel of real property. At this time, Ecology has no information that other sites affect the parcel associated with this Site.

Basis for the Opinion

Ecology bases this opinion on information in the documents listed in **Enclosure B**. You can request these documents by filing a records request.[4] 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[5]

This opinion is void if any of the information contained in the documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. Ecology bases its conclusion on the following analysis:

Characterizing the Site

Ecology has determined your completed Site characterization is sufficient for setting cleanup standards and selecting a cleanup action. **Enclosure A** describes the Site.

An initial Site assessment completed in 1998, during removal of four underground storage tanks (USTs), identified petroleum impacts to soil and groundwater. Subsequent Site characterization completed between 1988 and 2022 documented the extent of impacts to soil and groundwater.

[3] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340
[4] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[5] https://apps.ecology.wa.gov/cleanupsearch/site/11300

Setting cleanup standards

Ecology has determined the cleanup levels and points of compliance you set for the Site meet the substantive requirements of MTCA.

Cleanup Levels

Soil

The Site is located in an area with limited terrestrial habitat and qualified for a Terrestrial Ecological Evaluation (TEE) exclusion, based on WAC 173-340-7491(1)(c)(i). There are less than 1.5 acres of contiguous undeveloped land on the Site or within 500 feet of any area of the Site. Land use at the Site and surrounding area makes substantial wildlife exposure unlikely. Therefore, cleanup levels protective of terrestrial species are not needed at this Site.

The Property that includes the Site is located in the City of Kent M2 (Limited Industrial) zone. However, MTCA Method A soil cleanup levels for unrestricted land uses were selected for the Site. MTCA Method A soil cleanup levels based on protection of groundwater are appropriate.

Groundwater

The highest beneficial use for groundwater under MTCA is considered to be as a drinking water source, unless it can be demonstrated that the groundwater is not potable. MTCA Method A groundwater cleanup levels are protective of potable use and are therefore the default.

Points of Compliance

Soil

The point of compliance for soil at the Site for protection of groundwater is soils throughout the Site.

Groundwater

The point of compliance for groundwater is throughout the Site, from the uppermost level of the saturated zone extending vertically and horizontally to the lowest depth, which could potentially be affected.

Selecting the cleanup action

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA. The cleanup meets the minimum cleanup requirements and does not

exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site. The cleanup action selected for the Property consisted of the following elements:

- Removal of USTs containing gasoline and diesel;
- Excavation, on-Site treatment, and off-Site disposal of contaminated soil;
- Extraction, treatment, and disposal of contaminated groundwater;
- Extraction, treatment, and disposal of petroleum soil vapor; and
- Confirmational sampling of soil and groundwater to document compliance with cleanup levels.

Implementing the cleanup action

Ecology has determined your cleanup meets the standards set for the Site. The cleanup consisted of the following activities:

- Four USTs were decommissioned by removal in 1988:
    - 3,000-gallon waste oil UST;
    - 7,000-gallon motor oil UST;
    - 10,000-gallon gasoline UST; and
    - 15,000-gallon diesel UST.

The UST excavation resulted in removal and off-Site disposal of approximately 600 gallons of petroleum product and 1,440 cubic yards of petroleum-contaminated soil.

- One UST was decommissioned by removal in 1997:
    - 15,000-gallon diesel UST.
- A vapor extraction and groundwater recovery system was operated on the Property from 1989 through 1991. Approximately 3 million gallons of groundwater were pumped by the system, then treated and recharged to the shallow groundwater system (initially) or discharged by permit to the sanitary sewer system. Data from the soil vapor extraction system indicated that approximately 116 pounds (14.5 gallons) of TPH as gasoline were removed and treated by the system.
- Between March 2011 and June 2021, approximately 38,000 gallons of contaminated groundwater were removed from two remediation wells located on the Site and disposed off-Site by a cleanup firm with a wastewater discharge permit.

- Groundwater sampling completed from 2011 through 2022 confirmed compliance with Method A cleanup levels in Site monitoring wells.
- Soil sampling conducted during and after UST removal confirmed compliance with Method A soil cleanup levels at the Site.
- Site data has been uploaded to the Ecology Environmental Information Management (EIM) database.

The Site cleanup meets the requirement for Groundwater Model Remedy 1, in accordance with *Model Remedies for Sites with Petroleum Impacts to Groundwater, Ecology Publication No. 1-09-057, Revised December 2017*[6]. Therefore, a Feasibility Study and Disproportionate Cost Analysis are not required to document the remedy selection. The requirements of Groundwater Model Remedy 1 are:

- Petroleum hydrocarbons consisting of gasoline, middle distillates/oils, or heavy fuels/oils and their constituents are the only contaminants present in soil and groundwater.
- Emergency or interim actions are not required due to the lower risk nature of the Site.
- The Site meets the criteria for a simplified Terrestrial Ecological Evaluation (TEE), or a TEE exclusion.
- The primary remedy consists of source removal, including free product and contaminated soil, to the greatest extent practicable.
- The Site has not caused impacts above the practical quantitation limit (PQL) to any water supply well used for drinking water purposes.
- Soil meets Method A unrestricted cleanup levels throughout the Site.
- Groundwater meets Method A cleanup levels throughout the Site.
- A conditional point of compliance for groundwater is not applied at the Site.
- An empirical demonstration is not applied at the Site.
- Enough groundwater monitoring data has been collected and sufficiently analyzed to document that the contaminant plume is stable or receding.
- An environmental covenant is not needed on the Property.

[6] https://apps.ecology.wa.gov/publications/SummaryPages/1609057.html

Decommissioning of Site monitoring wells

You must decommission resource protection wells[7] installed as part of the remedial action that are not needed for any other purpose at the Site. Wells must be decommissioned in accordance with WAC 173-160-460.[8]

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from its lists of contaminated sites, including the:

- Confirmed and Suspected Contaminated Sites List.
- Leaking Underground Storage Tanks List.

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 **does not**:

- Resolve or alter a person's liability to the state.
- 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).[9]

Opinion does not constitute a determination of substantial equivalence

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that 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 make that determination. See RCW 70A.305.080[10] and WAC 173-340-545.[11]

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).[12]

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[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-160-410
[8] https://app.leg.wa.gov/WAC/default.aspx?cite=173-160-460
[9] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.040
[10] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.080
[11] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340-545
[12] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305.170

Termination of Agreement

Thank you for cleaning up the Site under the VCP. This opinion terminates the VCP Agreement governing VCP Project No. NW3050.

Questions

If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (425) 324-1892 or email at michael.warfel@ecy.wa.gov .

Sincerely,

Michael R. Warfel,
VCP Site Manager
Toxics Cleanup Program, NWRO

Enclosures (2): A – Site Description, History, and Diagrams
B – Basis for the Opinion: List of Documents

cc:
Chong Lee, FedEx Freight, Inc. (chong.lee@fedex.com)
Shane DeGross, BNSF, Property Owner (Shane.DeGross@BNSF.com)
Kelli Barker, VCP Fiscal Analyst (ecyrevcp@ecy.wa.gov)
Sonia Fernandez, VCP Coordinator (sonia.fernandez@ecy.wa.gov)

Enclosure A

Site Description, History, and Diagrams

Site Description

This enclosure provides Ecology's understanding and interpretation of Site conditions and forms part of the basis for the opinion expressed in the letter.

Site: The Site, defined as contamination consisting of TPH-G, TPH-D, TPH-O and BETX in soil and groundwater as the contaminants of concern (COCs), is located at 18221 E Valley Highway, Kent, WA (Property, **Figure 1**). The Property corresponds to King County tax parcel number 312305-9013.

Area and Property Description: The Property has been used for a warehouse and truck depot for Viking Freight since 1992. Truck service activities include repair and diesel fueling. The Property and vicinity is located within the City of Kent M2 (Limited Industrial) zone.

Property History and Current Use: The Property was originally developed as a freight trucking terminal in 1969. A large freight warehouse and a maintenance shop occupied the Property until 2015, when the buildings were demolished. The Property is currently covered by pavement and is used for storage of freight trailers.

Sources of Contamination: Site investigations conducted from 1988 through 1998 identified five former USTs as potential sources of documented impacts to soil and groundwater. The following USTs were removed in 1988: 3,000-gallon waste oil; 7,000-gallon motor oil; 10,000-gallon gasoline; and 15,000-gallon diesel (**Figure 2**). A 15,000- gallon diesel UST was removed in 1998 (**Figure 3**) and replaced by a 15,000-gallon diesel aboveground storage tank (AST). The diesel AST was removed in 2015 when the Property buildings were demolished.

Physiographic Setting: The Site is located in the Puget Sound Lowland, which is characterized as a broad, low-lying region situated between the Cascade Range to the east and the Olympic Mountains and Willapa Hills to the west. The Site is relatively level at elevation 25 feet above mean sea level, with a slight slope toward the northwest.

Surface/Storm Water System: The nearest surface water body is Springbrook Creek at a distance of approximately 500 feet southwest of the Property. Surface water and stormwater runoff on and near the Site disperse via catch basins on the Property to the City of Kent's stormwater drainage system.

Ecological Setting: The Site is surrounded by developed land occupied by industrial facilities, warehouses, office buildings, workshops, storage facilities, paved areas, and other physical barriers. Therefore, the urban environment prevents plants and animals from contacting soil affected by the Site.

Geology: The Site geology consists of at least 30 feet of alluvial deposits described as poorly to moderately sorted layers of gravel, sand, silt, and clay. Organic-rich peat was encountered in layers 2 to 6 feet thick, at depths of 5 to 12 feet below ground surface (bgs).

Groundwater: Groundwater on the Site occurs within the alluvium and was encountered at depths of approximately 5 to 9 feet bgs, with a general northwest flow direction (**Figure 4**)

Water Supply: Potable water is supplied to the Property by the City of Kent. The City's primary water supplies come from both springs and supply wells. In addition, the City has partnerships with Tacoma Water, Covington Water District, and Lakehaven Utility District to obtain surface water from the Green River through the Regional Water Supply System. Based on Ecology's well log database, no drinking water wells are located within 1,000 feet of the Site.

Releases and Cleanup of Contamination: Soil and groundwater contamination were originally discovered at the Site in 1988, when the four original USTs were removed from the Site. Site characterization and remediation activities completed since 1988 are summarized as follows:

- Interim actions completed from 1987 through 1989 included:
    - Removal of approximately 600 gallons of petroleum product and 1,440 cubic yards of petroleum-contaminated soil from the UST excavations, for off-Site disposal;
    - Installation of 15 groundwater monitoring wells, two groundwater recovery wells (RW-1 and RW-2), and a soil vapor extraction (SVE) system;
    - Removal and treatment of approximately 116 pounds (14.5 gallons) of TPH as gasoline by the SVE system; and
    - Pumping of approximately 3 million gallons of groundwater from the recovery wells, followed by treatment and recharge to the shallow groundwater system (initially) or discharge by permit to the sanitary sewer system.
- The remaining 15,000-gallon diesel UST was removed in 1997. The UST decommissioning procedures included over excavating the contaminated soil surrounding the tanks and conducting confirmation soil sampling. A soil sample collected at the east sidewall of the UST excavation, and a soil sample collected beneath the dispenser island, contained TPH-D concentrations above the MTCA Method A soil cleanup level.
- Approximately 10 cubic yards of contaminated soil was stockpiled on the Site. A composite soil sample from the stockpile showed a TPH-D concentration of 209 milligrams per kilogram (mg/kg), above the MTCA cleanup level of 200 mg/kg in effect at that time. The current TPH-D soil cleanup level is 2,000 mg/kg. The stockpiled soil was returned to the excavation as backfill.
- Between 2011 and 2021, remediation efforts included pumping of the following

approximate volumes of contaminated groundwater from wells at the Site: 37,000 gallons from RW-2; 1,100 gallons from MW-10; and 300 gallons from RW-1. A vendor transported the collected groundwater off-Site for treatment and disposal.

- A groundwater evaluation completed in 2021 confirmed that natural organic matter in groundwater was impacting TPH-D+O sample results, and that application of silica gel cleanup of groundwater samples prior to laboratory analysis is justified. The evaluation included the following observations:
    - Total organic carbon (TOC) in groundwater samples ranged 24.6 to 77.3 milligrams per liter (mg/L), compared to a typical TOC in natural waters of 0.7 mg/L. The TOC in groundwater at the Site is consistent with the presence of peat in Site borings, as noted above in description of Site geology.
    - Data from monitoring well MW-13 was cited in the evaluation, because this well is in a far downgradient location unlikely to have been affected by the Site releases (see **Figure 4**). TOC in monitoring well MW-13 was 77.3 mg/L. TPH-D+O in MW-13 without silica gel cleanup was 740 micrograms per liter (µg/L), above the Method A cleanup level of 500 µg/L. The result for the same groundwater sample with silica gel cleanup was less than 300 µg/L.
    - These results justified the application of silica gel cleanup for Site groundwater samples used to confirm compliance with the MTCA cleanup level for TPH-D+O.
- Groundwater monitoring continued between 2011 and 2022. The final monitoring event completed in February 2022 confirmed that all COCs were below Method A cleanup levels in groundwater, for a sufficient number of events, to demonstrate compliance throughout the Site.
- A confirmation soil boring was advanced at the former 15,000-gallon diesel UST excavation location in 2022, to assess possible residual TPH-D concentrations associated with the 1997 UST removal (**Figure 5**). Concentrations of TPH-D were below the Method A cleanup level in all four soil samples (collected at depths of 3, 5, 10, and 12 feet bgs).
- Confirmation soil samples were also collected in 2022 to assess possible residual TPH-D concentrations at 2 feet bgs, associated with the former pump island near the diesel UST (see **Figure 5**). Seven soil samples collected between depths of 2 and 5 feet bgs at two locations did not show TPH-D above laboratory detection limits, which confirms compliance with the Method A cleanup level.

SITE DIAGRAMS

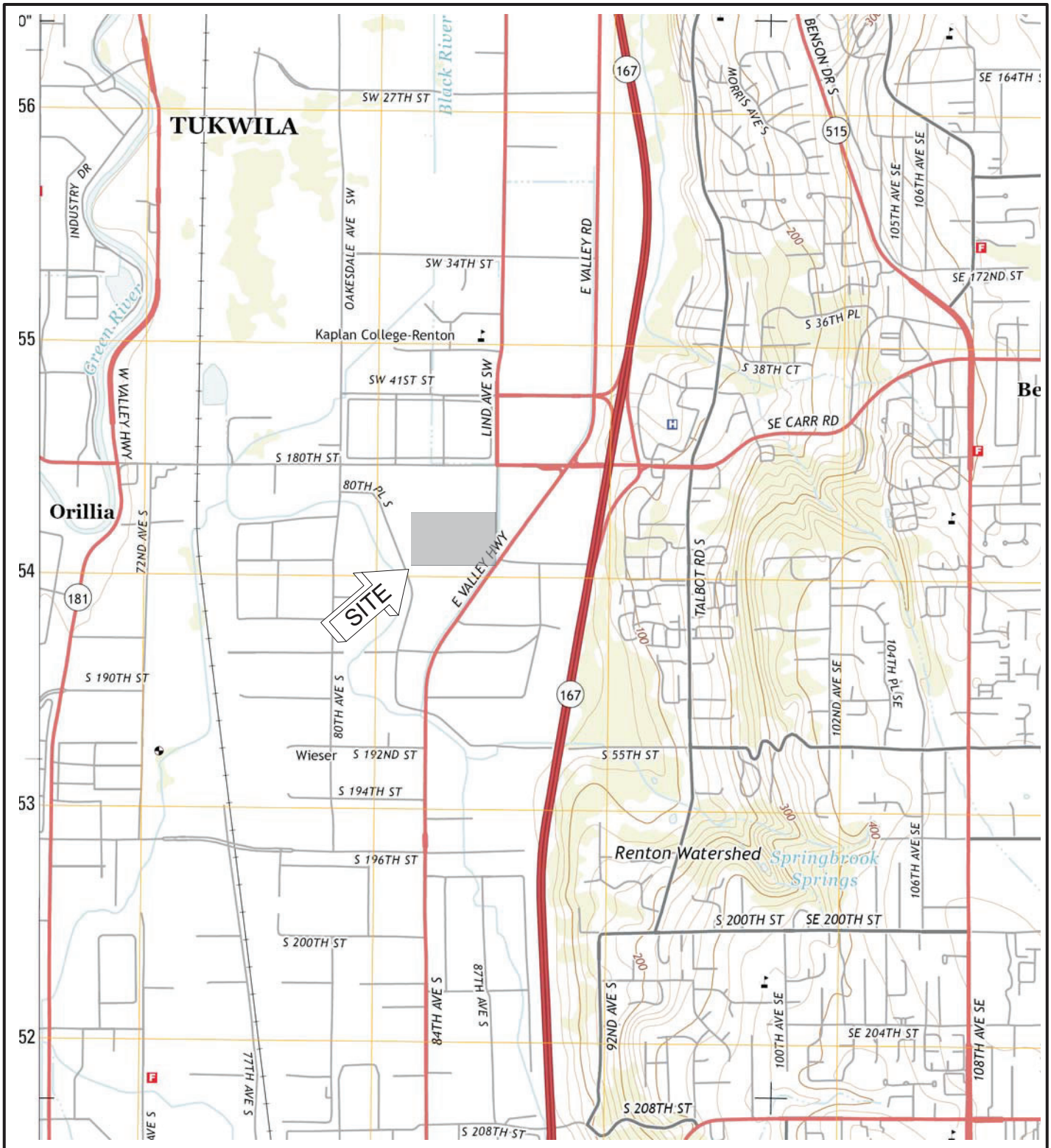


Figure 1 - Site Map

Former FedEx Freight Terminal
18221 E. Valley Highway
Kent, Washington

Project No.	WES - 1276
Date	Aug 2, 2016
File ID.	1276F1

WHITMAN
Environmental Sciences

Enclosure A, Figure 1

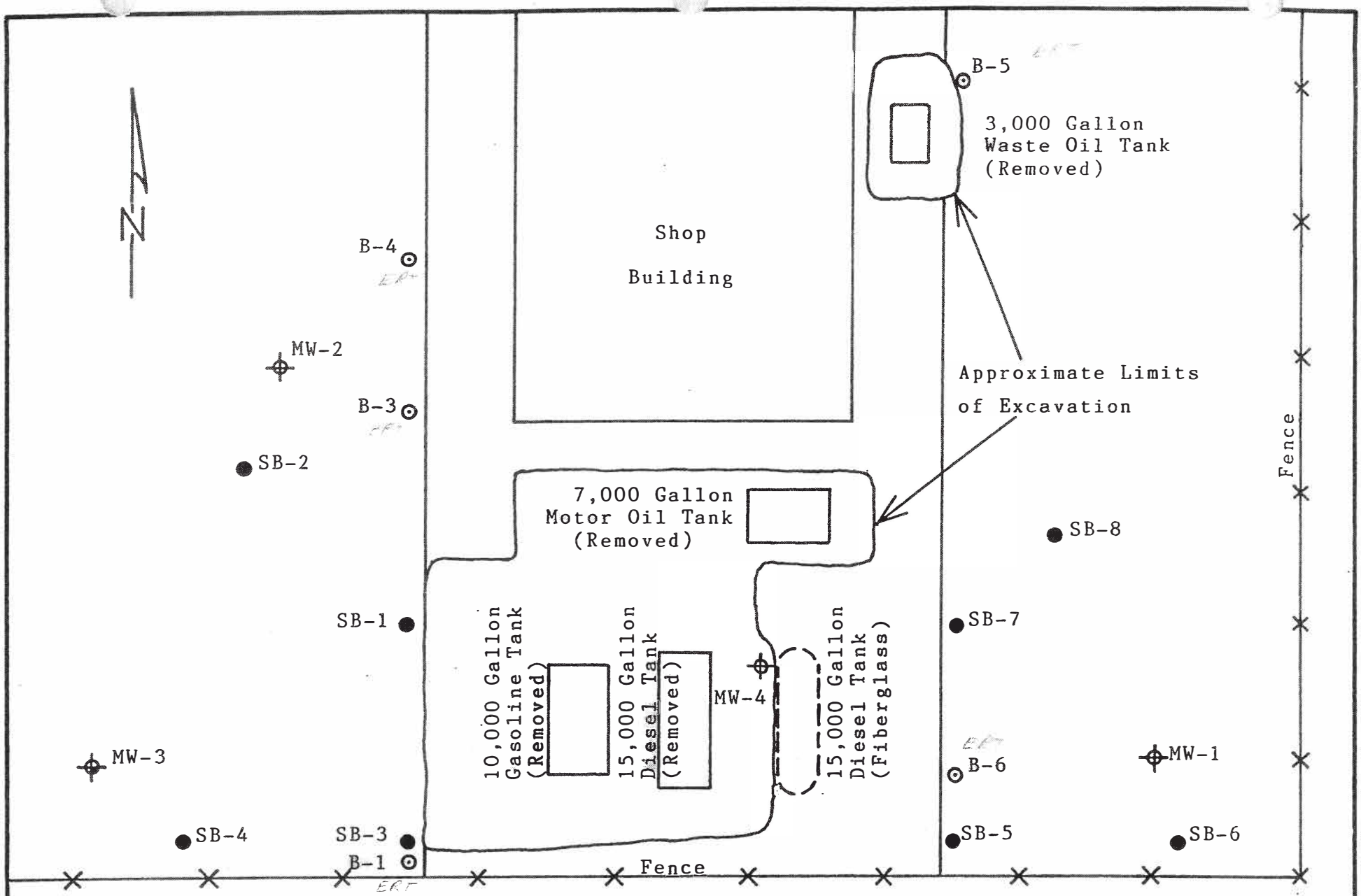
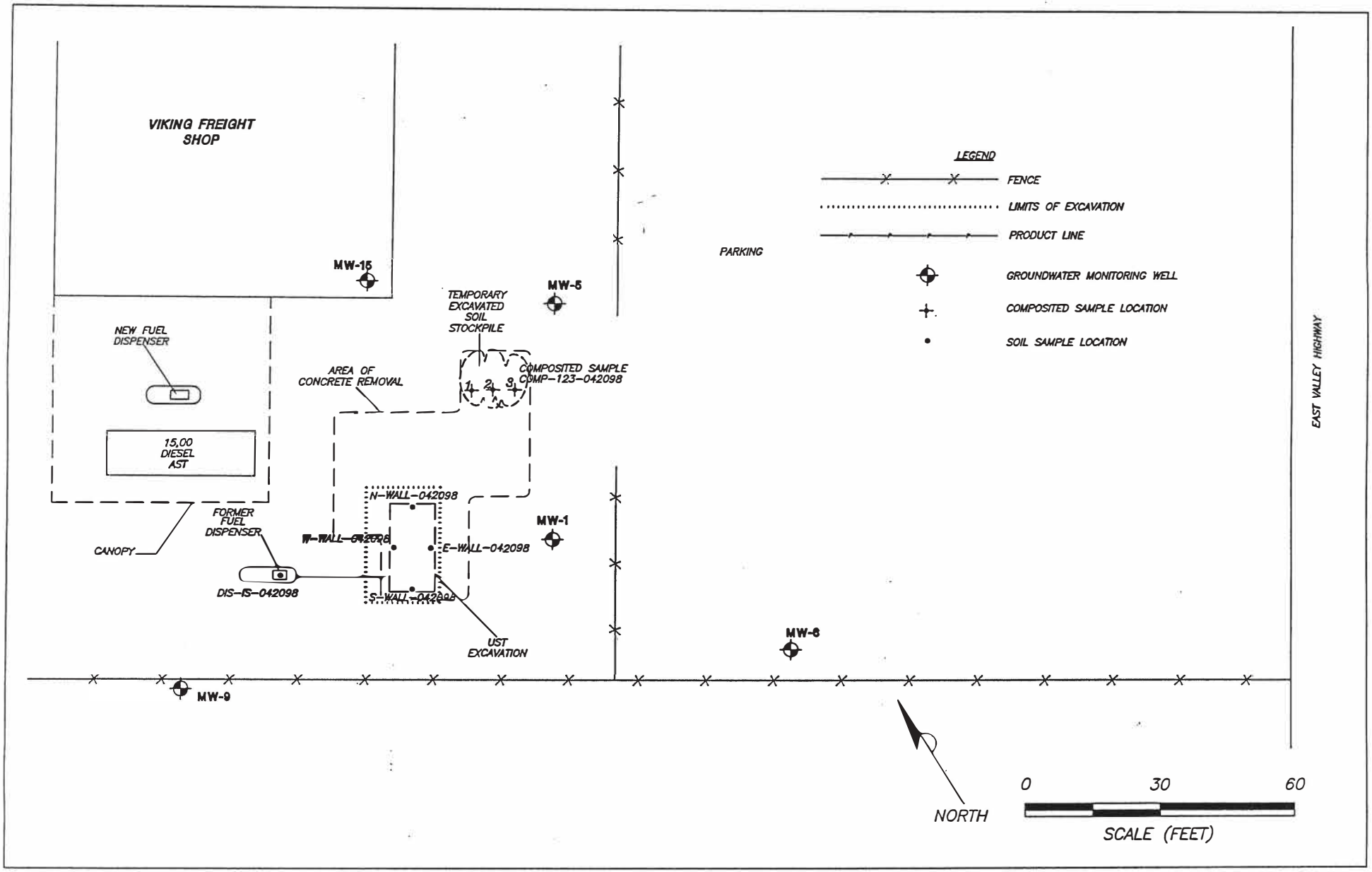


FIGURE 2
SITE PLAN
P.I.E. TRUCK TERMINAL
KENT, WA

GROUNDWATER TECHNOLOGY, INC.

DIETERICH POST REORDER NO. 116233

Enclosure A, Figure 2



SECOR
International Incorporated

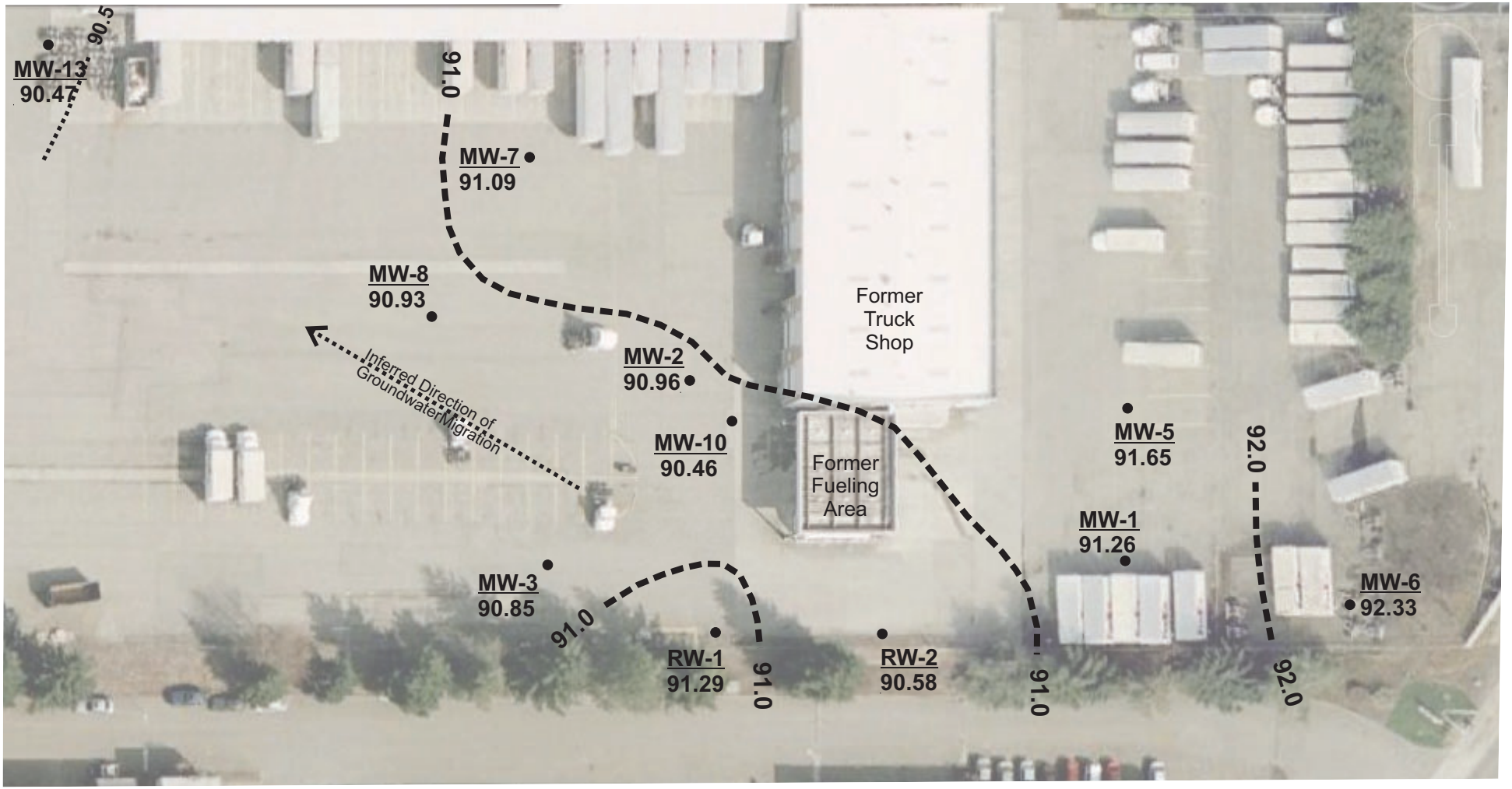
SITE PLAN
AND SOIL SAMPLE LOCATIONS
VIKING FREIGHT
18221 EAST VALLEY HIGHWAY
KENT, WASHINGTON

FIGURE: **2**

JOB#: **00155-004-02** APPR: DWN: **SES** DATE: **05/08/98**

DWG: VIK0401A.DWG

Enclosure A, Figure 3



Legend

- Approximate Location of Monitoring Well
- Groundwater Surface Contours based on Water Level Measurements of 10/23/2020

All buildings and former site features have been removed.

0 80

Scale 1" = Approx. 80 feet

North

Figure 2A - Monitoring Well Location Plan and Inferred Groundwater Contours
Former FedEx Freight, Inc. Kent Terminal
18221 E. Valley Highway
Kent, Washington

Project No.	WES - 1276
Date	July 2, 2021
File ID.	1276F2A

WHITMAN Environmental Sciences

Enclosure A, Figure 4

Enclosure A, Figure 5

Enclosure B

Basis for the Opinion: List of Documents

1. Whitman Environmental Sciences (WES). October 3, 2022. *Response to Ecology Comments, Former FedEx Freight, Inc. Seattle Area Terminal 18221 E. Valley Highway, Kent, Washington*.

2. WES. June 2, 2022. *Summary of Soil and Groundwater Sampling and Analyses, Former FedEx Freight, Inc. Seattle Area Terminal 18221 E. Valley Highway, Kent, Washington*.

3. WES. October 1, 2021. *Groundwater Sampling for Total Organic Carbon, Former FedEx Freight, Inc. Seattle Area Terminal 18221 E. Valley Highway, Kent, Washington*.

4. WES. August 3, 2021. *Groundwater Monitoring Summary Report, Former FedEx Freight, Inc. Seattle Area Terminal, 18221 E. Valley Highway, Kent, Washington*.

5. WES, November 15, 2019, *Groundwater Monitoring Summary Report, Former FedEx Freight, Inc. Seattle Area Terminal, 18221 E. Valley Highway, Kent, Washington*.

6. WES. June 13, 2019. *Status Update, Former FedEx Freight Seattle Terminal, 18221 East Valley Highway, Kent, Washington 98032*.

7. Washington State Department of Ecology. October 23, 2012. *Further Action Opinion, FedEx Freight Seattle Terminal (Former), 18221 E. Valley Highway, Kent, Washington*.

8. WES. July 9, 2012. *Terrestrial Ecological Evaluation Form, VCP NW2587, Viking Freight Systems, Former FedEx Freight Seattle Terminal*.

9. WES. March 20, 2012. *Groundwater Monitoring, FedEx Freight, Inc. Former Seattle Area Terminal, 18221 E. Valley Highway, Kent, Washington*.

10. WES. January 24, 2012. *Groundwater Monitoring, FedEx Freight, Inc. Former Seattle Area Terminal, 18221 E. Valley Highway, Kent, Washington*.

11. WES. August 25, 2011. *Groundwater Monitoring, FedEx Freight, Inc. Former Seattle Area Terminal, 18221 E. Valley Highway, Kent, Washington*.

12. WES. April 1, 2011. *Groundwater Monitoring, FedEx Freight, Inc. Former Seattle Area Terminal, 18221 E. Valley Highway, Kent, Washington*.

13. SECOR International, Incorporated. June 19, 1998. *Underground Storage Tank Closure Site Assessment, Viking Freight Facility, 18221 E. Valley Highway, Kent, Washington.*

14. SECOR International, Incorporated. January 27, 1997. *Summary Letter Report, January 1997 Groundwater Sampling, Viking Freight Facility, 18221 E. Valley Highway, Kent, Washington.*

15. SEACOR. July 1, 1992. *Design and Construction Specification for the Proposed Groundwater Treatment System, Viking Freight Facility, 18221 E. Valley Highway, Kent, Washington.*

16. SEACOR. January 8, 1992. *Groundwater Quality Assessment, Viking Freight Facility, 18221 E. Valley Highway, Kent, Washington*.

17. SEACOR. October 25, 1991. *Results of a Phase I Environmental Assessment, Viking Freight Facility, 18221 E. Valley Highway, Kent, Washington*.

18. SEACOR. February 1, 1991. *Site Evaluation, P.I.E. Truck Terminal, 18221 East Valley Highway, Kent, Washington*.

19. Groundwater Technology, Inc. (GTI). November 1, 1989. *Status Report, P.I.E. Truck Terminal, 18221 East Valley Highway, Kent, Washington*

20. GTI. August 18, 1989. *Metro Discharge Authorization, P.I.E. Truck Terminal, 18221 East Valley Highway, Kent, Washington*.

21. GTI. April 11, 1989. *Soil Treatment System, P.I.E. Truck Terminal, 18221 East Valley Highway, Kent, Washington*.

22. GTI. February 24, 1989. *Update of Additional Assessment Work, P.I.E. Truck Terminal, 18221 East Valley Highway, Kent, Washington*.

23. GTI. July 20, 1988. *Environmental Assessment Report, P.I.E., Truck Terminal, 18221 East Valley Highway, Kent, Washington*.