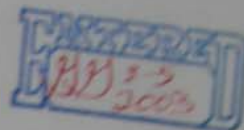




# VCP Site Closure Report

**Former Diesel UST Location  
Parcel B at Terminal 115  
Seattle, Washington**



Prepared for:  
The Department of Ecology  
Northwest Regional Office and VCP

Prepared by:  
**Urban Redevelopment, LLC**

December 2, 2002

## Chapter 8 Conclusions

On the weekend of October 27, 2002, Foss Redevelopment contracted with Urban Redevelopment to complete the independent remedial action of diesel-impacted soil in the former location of a diesel UST on the Seattle property known as Parcel B of Terminal 115. The origin of the PCS is likely from a historic release of diesel during the operation of the former 1,000 gallon diesel UST.

In summary, the following remedial activities were accomplished:

- ▶ Excavation and off-site disposal of approximately 45 tons of PCS to Rabanco's Roosevelt Regional Landfill and Recycling Facility.
- ▶ Collection and chemical analysis of 15 confirmation soil samples from the PCS excavation sidewalls and bottom. All samples were analyzed by Ecology's Method NWTPH-Dx.
- ▶ Met Method A soil cleanup levels for all excavation sidewall and bottom confirmation samples.
- ▶ Performed a screening-level evaluation of shallow groundwater quality during earlier site investigations.
- ▶ Entered Ecology's Voluntary Cleanup Program and prepared this VCP Closure Report.

Based on the information provided in this VCP Site Closure Report, it is concluded that independent remedial action at the former diesel UST at Parcel B at Terminal 115 (subject property) in Seattle, Washington is complete, and that no further action is necessary for the project site.

## Chapter 6 Shallow Groundwater Sampling

Screening-level groundwater sampling was performed during pre-remediation soil investigation efforts in order to determine the relative impacts to shallow groundwater in and around the former diesel UST area. Several of the direct-push geoprobes were used to collect unfiltered shallow groundwater samples. A total of three geoprobes (GP-1, GP-4, and B-10) located in the apparent downgradient location of the former diesel UST were sampled for diesel in water. All other probe locations where shallow groundwater was sampled were located within the eventual limits of the PCS excavation area.

Geoprobes GP-1 and GP-4 were installed and sampled by ESN Northwest under contract to Urban Redevelopment. They were located approximately 20 feet north and east of the former UST location, in the direction of the building (and approximately 5 feet beyond the limits of the final PCS excavation limits).

Geoprobe B-10 was installed and sampled by ESN Northwest under contract to IVI. The probe was located approximately 30 feet northeast of the former UST location (see Figure 3).

### WELL PROBE CONSTRUCTION AND SAMPLING

A total of seven well probes, advanced as part of a subsurface soil investigation, were sampled for shallow groundwater. The direct-push geoprobe and sampling technique are considered screening-level methods for evaluating groundwater quality. After a 2-inch diameter soil sampling probe was advanced to a selected depth, the probe was removed and replaced with a 1-inch diameter stainless-steel slotted rod. New poly tubing was then inserted to the end of the slotted rod and a groundwater sample extracted using a peristaltic pump. As standard practice, one or two gallons of water was purged from the probe before a screening-level groundwater sample was collected. No sand packing or other material was backfilled into the annular space of the sampling rod. In all cases, the sampling points were purged dry. Subsequently, shallow groundwater within the rods were allowed to recover, and then immediately sampled.

Following well purging, shallow groundwater was pumped directly into laboratory-supplied sampling containers, labeled, and stored on ice. The groundwater samples were eventually transported under chain-of-custody to Friedman & Bruya's analytical laboratory in Seattle, Washington.

### GROUNDWATER QUALITY ANALYTICAL RESULTS

All screening-level groundwater samples were analyzed for TPH quantified as diesel by Ecology Method TPH-Dx. Results of chemical analysis (concentration of diesel in groundwater) for shallow groundwater in geoprobes located within the PCS excavation limits include: GP-3 (less than the detection limit of 500 ppb); GP-5 (14,000 ppb); B-8 (4,100 ppb); and B-10 (less than 250 ppb).

Results of chemical analysis (concentration of diesel in groundwater) for shallow groundwater in geoprobes located beyond the final PCS excavation limits include: GP-1 (less than the laboratory detection limit of 500 ppb); GP-4 (700 ppb); and B-10 (less than 250 ppb).

The screening-level groundwater sampling event was performed just months before the PCS excavation effort was performed. In addition, all groundwater sampling locations that contained slightly elevated concentrations of diesel also contained elevated levels of diesel in soil. The soil and shallow groundwater surrounding these geoprobe locations were eventually removed as a result of the PCS excavation efforts. Results of screening-level groundwater sampling from geoprobes located outside the final limits of the PCS excavation limits contained diesel in groundwater at or below Ecology's MTCA Method A groundwater cleanup level for TPH quantified as diesel. Based on these results, it is concluded that there exist on site no remaining adverse impacts to the site's shallow groundwater due to the historic diesel release. Any previous measurements of elevated concentrations of diesel in groundwater have been removed due to the efforts of PCS remedial action, as described in this report.

As a result of the chemical analysis of 15 additional soil samples from the PCS excavation area, it was determined that 11 samples were analyzed by Ecology's Method A laboratory.

As a result of the Method A soil cleanup levels for all excavation below and below adjacent areas.

As a result of a screening-level evaluation of shallow groundwater quality during water site investigations.

As a result of Ecology's Voluntary Cleanup Program and prepared this VCP Closure Report.

Based on the information provided in this VCP Site Closure Report, it is concluded that the remedial action at the former diesel UST at Parcel B at Terminal 115 meets Ecology's cleanup standards, and that no further action is necessary for the site.

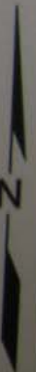
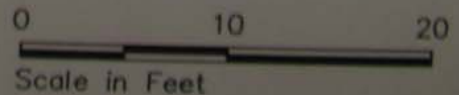


**Legend**

- ▲ 3 (<20) Confirmation Soil Sample Location and Number (TPH-D Concentration in mg/kg)
- △ 11 (10,000) Over-Excavated Soil Sample Location and Number (TPH-D Concentration in mg/kg)
- B-1 (2,300) Soil Boring Location and Number (by IVI) (TPH-D Concentration in mg/kg)

See Table 1 for Analytical Sample Results

Parking Lot



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