

Results of Investigation and Proposed Cleanup Alternatives Available for Review

BNSF Railway Company (BNSF) entered into a legal agreement, called an Agreed Order, with the Washington State Department of Ecology in 2009. The Order required BNSF to conduct a Remedial Investigation and Feasibility Study (RI/FS) at the Parkwater Railyard site. The purpose of the Remedial Investigation was to further identify contaminants at the site, determine where they were located and how much might be in site-related soil and groundwater. The purpose of the Feasibility Study was to evaluate cleanup alternatives to address these contaminants. The FS also provides necessary information to develop a cleanup action plan. The RI work was conducted from December 2009 to February 2010.

The facility, formerly known as Yardley, is one-half mile south of the Spokane River and lies over the Spokane Valley Rathdrum Prairie Aquifer. The property covers about 130 acres that has been used as a railyard for nearly 100 years. The site address is 5302 East Trent Avenue in the city of Spokane, Spokane County, Washington (see Figure 1).



Looking West from Fancher Road toward the Site

Public Invited to Comment on Draft Documents

Ecology invites you to:

- **Review** the draft Remedial Investigation and Feasibility Study Reports.
- **Send** your comments to Ecology for consideration. **Comments will be accepted September 3 through October 4, 2010.** See the shaded box on page one for where to review documents and send comments.
- **Note:** A document called the “Remedial System Evaluation” is available for review only. This document contains an evaluation of certain cleanup actions BNSF took at the site *before* entering into the formal cleanup process with Ecology.

Comments Accepted

September 3, 2010 through
October 4, 2010

**Если вам нужно помощь по
русский, звоните**

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Document Review Locations

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Call Kari Johnson for an appointment

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Ecology's Toxics Cleanup Website

http://www.ecy.wa.gov/programs/tcp/sites/parkwater/railyard_hp.htm

Facility Site ID No. 676

Previous Investigations

BNSF initiated investigations and cleanup actions at the site prior to the 2009 formal Agreed Order with Ecology. These previous investigations found polychlorinated biphenyls (PCBs) in soil and petroleum hydrocarbons in soil and groundwater at the site.

BNSF removed PCB-contaminated soil from an area southeast of the Western Fruit Express maintenance facility in 2002. Diesel-contaminated soil was removed from between the Diesel Shop and Material Storage Building in 1999. Minor cleanup was conducted after a diesel release in the Yardley Office area in 2000. Additionally, contaminated soil from an oil spill was removed from the TTX facility and replaced with clean gravel.

Four underground storage tanks held diesel fuel or waste oil used to refuel locomotives. One or more of these tanks leaked over time creating contamination in soil and groundwater. In March 2009, BNSF began operating a soil and groundwater treatment system in the Fueling Area to treat and remove petroleum hydrocarbons.

Results of 2009-2010 Investigations

The Remedial Investigation determined what contaminants were in soil and groundwater, how much was present and where they were located. The following ten areas were studied as part of the investigation (see Figure 2 for map of locations):

- Koch Area Asphalt Lease Area
- Diesel Shop and Materials Storage Building
- Western Fruit Express (Generator Storage Area)
- Dismantling Spur and East and West Debris and Soil Deposit Area
- Yardley Office (Main Line No. 1)
- Ralston Lead Track
- TTX Facility
- Fueling Area
- Former "Paint" Building
- Former Gasoline Storage Tank Area

The investigations confirmed that there were contaminants exceeding state standards in seven of the ten areas. The TTX Facility and areas near monitoring wells MW22 and MW23 by the Fueling Area did not exceed state standards. The former paint building and gasoline storage tank areas were not contaminated.

The following is a list of contaminants that exceeded state standards: Please see the Remedial Investigation Report for details about where and how much of these contaminants were found in the seven areas at the site.

Petroleum hydrocarbons	Arsenic
Cadmium	Lead
Mercury	Naphthalene
Methylene chloride	cPAH

Soil Contamination

Soil contamination in most areas is limited to shallow soil between the surface and 8 feet below the ground surface. The Fueling Area has deeper contamination between 12 and 65 feet below the ground surface. Monitoring results show treatment systems in the Fueling Area are successfully treating and removing petroleum hydrocarbons from soil and groundwater.

Groundwater Contamination

Diesel-contaminated groundwater forms what is called a "plume" under the Fueling Area. Figure 3 shows the approximate area of the plume in January 2007 before the treatment system began operating. This plume of diesel-contaminated groundwater has moved in a west, northwest direction but does not leave the site.

Groundwater in the Fueling Area where the spill occurred is being addressed with the existing treatment system. There are no drinking water wells on the site, and contaminated groundwater doesn't leave the site. Therefore, the public is not exposed to contaminants in drinking water.

Feasibility Study Cleanup Alternatives

Three alternatives were evaluated for cleanup of soil and groundwater at the site. Based on the Remedial Investigation findings, no further action is recommended at the TTX Facility or near monitoring wells MW22 and MW23 in the Fueling Area. The former paint building and gasoline storage tank areas were not contaminated. These areas were not further evaluated as part of the Feasibility Study.

The following are the three cleanup alternatives evaluated in the Feasibility Study:

1. Remove contaminated soil at all accessible areas except the Fueling Area. Continue the current treatments of deep soil and groundwater at the Fueling Area.
2. Remove contaminated soil near the Western Fruit Express, Materials Storage Building, Dismantling Spur (excluding the East and West Debris Areas), Yardley Office, and Ralston Lead Track. Use asphalt or gravel as a protective cap to cover remaining contamination. Continue the current treatments of deep soil and groundwater at the Fueling Area.
3. Use an asphalt or gravel cap and institutional controls in areas where contaminants are present. Continue current treatment of deep soil and groundwater at the Fueling Area.

BNSF proposes Alternative No. 2 as the preferred cleanup action. Ecology will review and evaluate this proposal and prepare the draft Cleanup Action Plan (DCAP). The DCAP provides details on Ecology's selected cleanup action, specifies cleanup standards, and describes other requirements for the Site based upon data and information obtained during the Remedial Investigation and Feasibility Study phases of cleanup.

Site Background

BNSF Parkwater was the main facility for the Northern Pacific Railroad in the early 1900s until the roundhouse was torn down in 1959. Current

operations include fueling, intermodal operations, and switching of rail cars. Historical operations also included maintenance. Underground tanks containing diesel, waste oil, and possibly solvents were housed on-site to support daily operations.

In 2004, some of the fueling operations at BNSF Parkwater were moved to a new facility in Hauser, Idaho. Currently, BNSF Parkwater serves as a support fueling facility to the Hauser facility when there is high demand.

In 1990 an underground storage tank containing petroleum was being removed and a petroleum release was discovered. Ecology conducted an initial investigation in January 1991 to evaluate the reported release. Diesel fuel was detected in soil and groundwater near the locomotive fueling area on the rail yard.

In January 1996, the Spokane County Health District completed a Site Hazard Assessment of the property. The site ranked a three on the Hazardous Sites List. The Hazardous Sites List is a record of contaminated sites throughout the state that are ranked on a scale of one to five. One represents the greatest potential threat to human health and the environment; five represents the least potential threat. The site ranked a three because of the amount of petroleum-contaminated soil and the potential for groundwater and aquifer contamination.

Companies responsible for contamination at a site have an opportunity to pursue cleanup through Ecology's Voluntary Cleanup Program (VCP). Since discovery of the release, BNSF conducted limited investigations and independently cleaned up some contamination. This included removal of the petroleum underground storage tanks and implementation of a soil and groundwater treatment system at the Fueling Area.

If Ecology determines the VCP program is not an appropriate avenue for the cleanup, it becomes part of Ecology's formal cleanup process. The Agreed



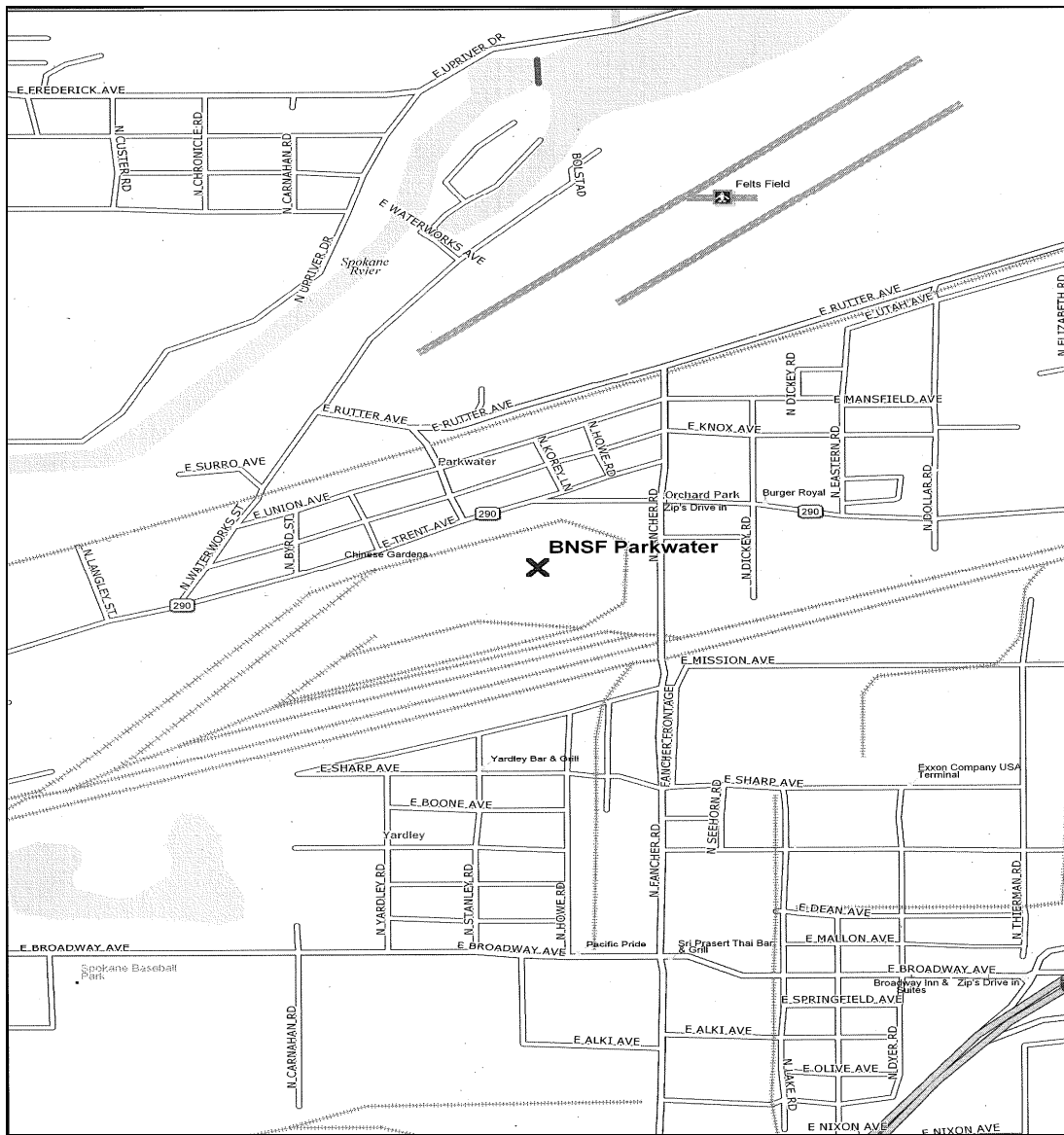
Order between BNSF and Ecology at this site began the formal cleanup process.

Why This Cleanup Matters

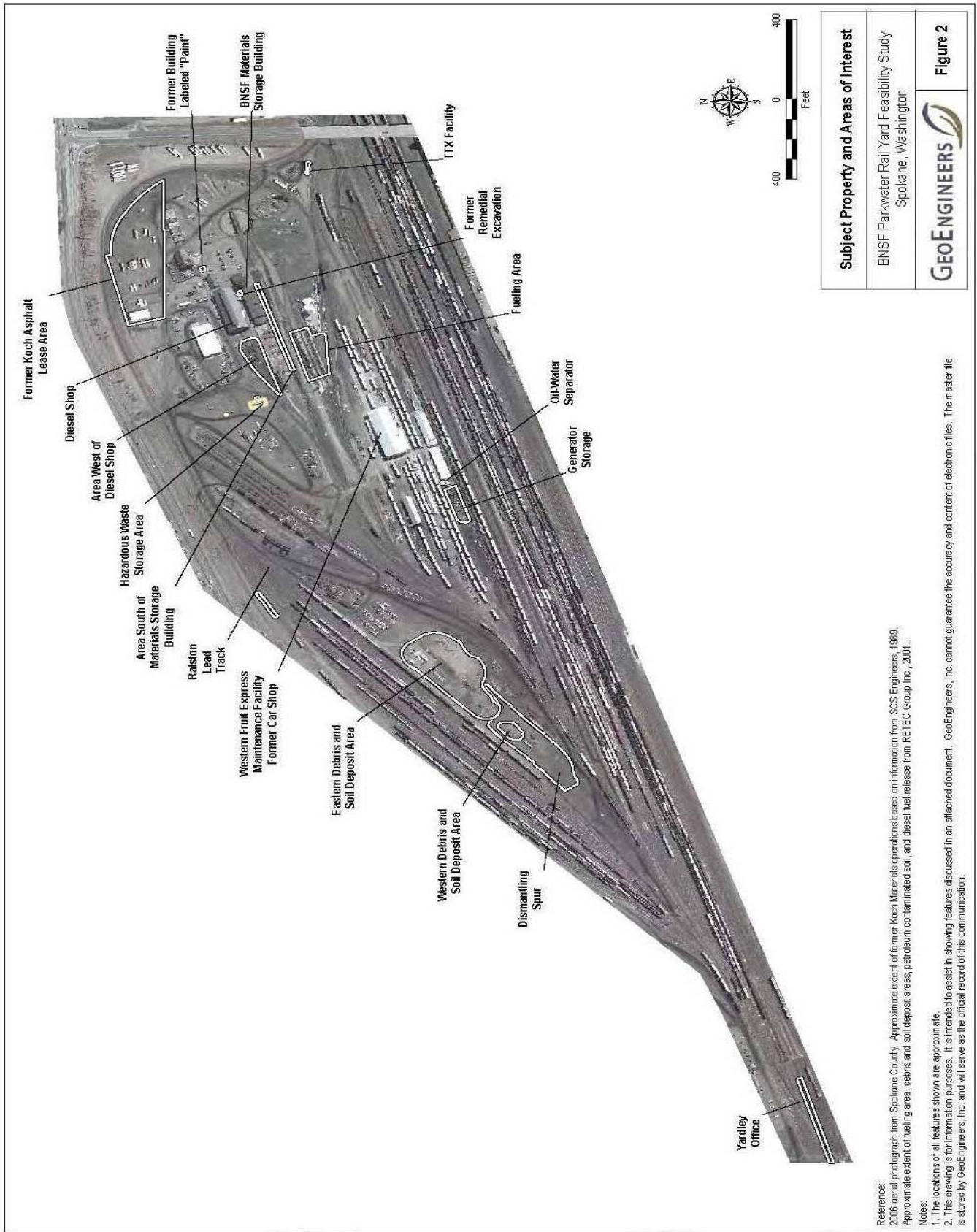
- Cleanup protects the Spokane Valley Rathdrum Prairie Aquifer that provides drinking water to more than 500,000 residents.
- Cleanup reduces exposure pathways.
- Cleanup protects human health and the environment.

What Happens Next?

Ecology will review and respond to all comments received by October 4, 2010. After comments are considered, Ecology may modify the reports, if appropriate. Once the Remedial Investigation and Feasibility Study reports are final, the Cleanup Action Plan will be developed by Ecology and made available for public comment.



**Figure 1
Site Location**



Subject Property and Areas of Interest	
BNSF Parkwater Rail Yard Feasibility Study Spokane, Washington	
GEOENGINEERS	Figure 2

Reference: 2005 aerial photograph from Spokane County. Approximate extent of former Koch Materials operations based on information from SCS Engineers, 1989. Approximate extent of fueling area, debris and soil deposit areas, petroleum contaminated soil, and diesel fuel release from RETEC Group Inc., 2001.

Notes: 1. The locations of all features shown are approximate.

2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Figure 2
Areas Studied in the Remedial Investigation

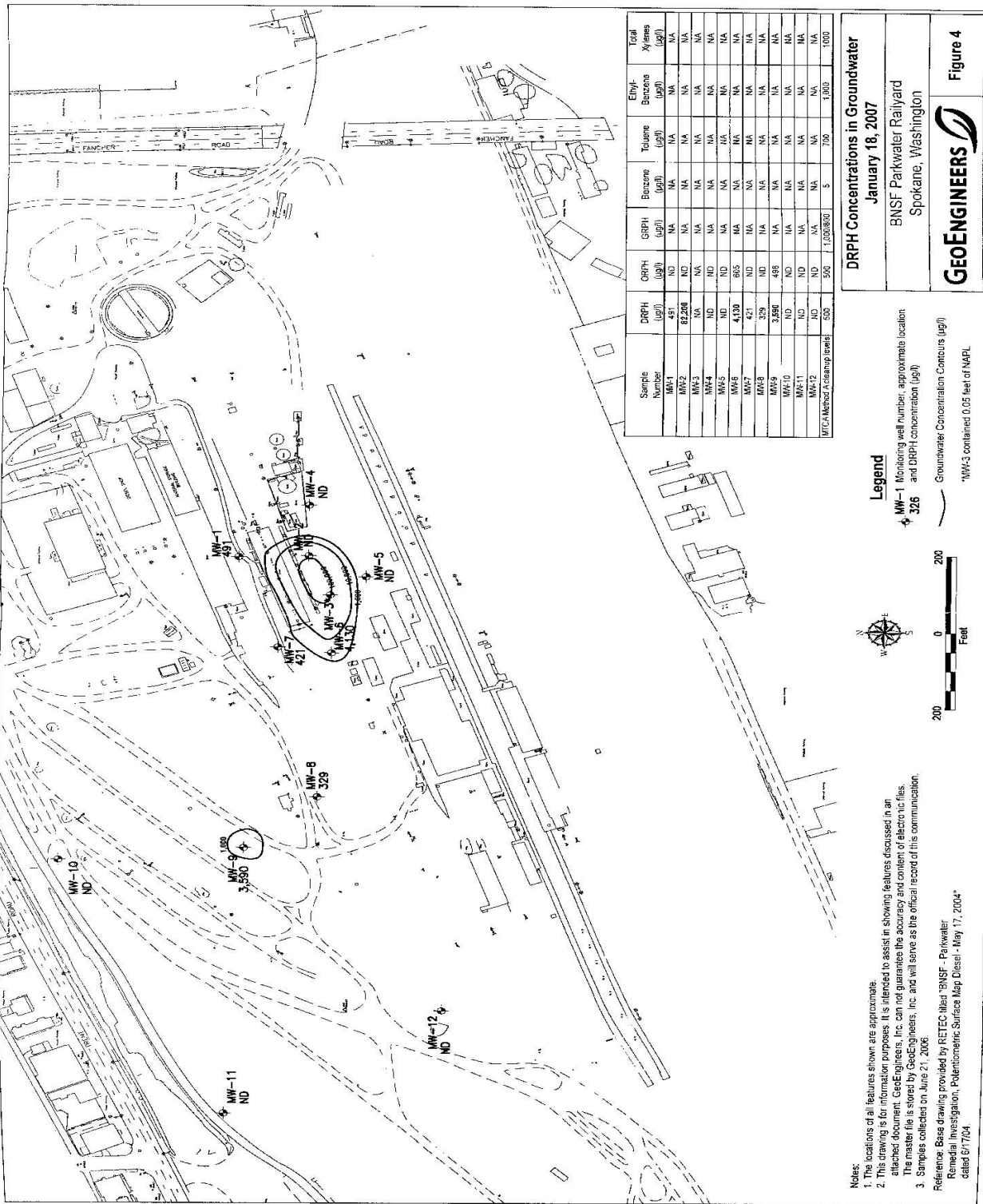


Figure 3
Diesel-Contaminated Groundwater Plume in 2007
 (represented by three circle-type drawings in the center of the page)

If you need this publication in an alternative format, call Carol Bergin at 509/329-3546. Persons with hearing loss, call 711 for Washington Relay Service. Persons with speech disability call 877-833-6341