

Landsburg Mine Site

Cleanup Update



Interim Groundwater Monitoring Results and Responsiveness Summary Now Available

The Washington State Department of Ecology (Ecology) wants to update you on the status of cleanup activities at the Landsburg Mine site in Ravensdale, Washington. Comments are not requested at this time.

What's New?

Groundwater Sampling and Analysis at the Landsburg Mine Site is now Complete

The monitoring results are contained in a document called *Landsburg Mine Site Interim Groundwater Monitoring Results - February 2006*. It is available at the information repositories listed in the box at the right.

Deep Monitoring Well Sampling and Interim Groundwater Monitoring

In June 2005, Ecology approved a work plan for the installation of a monitoring well (*LMW-11*) approximately 700 feet deep at the lowest level within the southern portion of the Landsburg Mine site. Drilling and installation took place in mid October 2005.

The purpose of the deep well is to obtain information about groundwater quality deep within the former mine, and to determine whether wastes disposed in the trench have migrated to the deepest level of the southern portion of the mine.

The Potentially Liable Parties (PLPs) collected soil and water samples during the drilling process, and later in February 2006, when groundwater conditions had stabilized. Ecology and the City of Kent split groundwater samples with the potentially liable parties in order to verify results independently.

The groundwater samples were sent to certified laboratories for analysis. They analyzed for volatile organics compounds, semi-volatile organic compounds, polychlorinated biphenyls (PCBs), organochlorine pesticides, metals, major anions, cyanide, and petroleum hydrocarbons.

Sampling and analyses of groundwater from *LMW-11* occurred at the same time as the interim groundwater monitoring of other wells at the site.

Summary of Monitoring Results

The results of the groundwater investigation are as follows:

- No significant changes in groundwater conditions were observed. No contamination was found in groundwater from any site monitoring wells that can be attributed to the wastes disposed in the trench.
- Chemical analysis did not detect any organic compounds in groundwater samples from any of the monitoring wells.

June 2006

Site documents can be reviewed at the following locations:

Maple Valley Library
21844 SE 248th St., Maple Valley
(425) 432-4620

WA Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008
(425) 649-7190
(Call for an appointment)

Ecology's Web site:
<http://www.ecy.wa.gov/programs/tcp/sites/sites.html>

For technical questions contact:

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WA Department of Ecology
Toxics Cleanup Program
3190 160th Avenue SE
Bellevue, WA 98008
E-mail: jcru461@ecy.wa.gov
(425) 649-7094

All other Questions:

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Public Involvement Coordinator
WA Department of Ecology
Toxics Cleanup Program
3190 160th Avenue SE
Bellevue, WA 98008
E-mail: juas461@ecy.wa.gov
(425) 649-7135

- Analyses also showed no detections for contaminants such as PCBs, cyanide, pesticides and petroleum hydrocarbons at the wells. All compounds met acceptable cleanup levels.
- The results for iron and manganese in groundwater from site wells were similar to previous results. They were above secondary maximum contaminant levels, which are not health-based standards, but are protective of aesthetic qualities of water. Iron and manganese are commonly found in western Washington groundwater wells.
- Arsenic was detected in the deep well LMW-11 equivalent to the Washington State primary drinking water maximum contaminant level of 10 parts per billion, but higher than the Model Toxic Control Act cleanup level of 5 parts per billion. Arsenic is a naturally occurring metal commonly detected in groundwater and particularly common in bedrock and coal formations, such as Landsburg. It is probable that the arsenic is naturally occurring deep in the former mine where ground water is stagnant and geochemically different from shallower groundwater within the mine.
- Based on water chemistry from the 700 - foot well LMW-11, groundwater at this level is apparently anaerobic (*having little or no dissolved oxygen*). Along with other indicators, these may be suitable conditions for microbial degradation or destruction of contaminants such as the chlorinated solvents and /or petroleum hydrocarbons. It may also help explain the capacity of the former coal mine to assimilate or degrade possible contaminants in the groundwater within the mine workings.

Other Recent Activities: Responsiveness Summary Now Available

Ecology has also written a response to comments (*Responsiveness Summary*) received during the recent public comment period on the proposed Agreed Order Amendment. You may review the Responsiveness Summary at the information repositories listed in the box at the right on the first page of this fact sheet.

In October 2005, the PLPs and Ecology made available an Agreed Order Amendment and State Environmental Policy Act documents for public review and comment. The amendment will allow the potentially liable parties (PLPs) to design and build the infrastructure components for a contingent groundwater treatment system for the Landsburg Mine site.

The initial comment period ran from October 20, through November 18, 2005. Ecology extended the comment period through February 15, 2006 in response to requests from members of the public to hold a meeting. Ecology held a public meeting to provide information and take public comments on February 7, 2006 at the Tahoma Junior High.

The project to install the infrastructure elements of the contingent groundwater treatment system will proceed with changes based on input from the public comment period.

What Happens Next?

The PLPs will install the infrastructure elements of the contingent groundwater treatment system, including a small diameter pipeline to a public sewer system on the Summit- Landsburg Road. This system will not be hooked up at this time, but shall be a contingency in case future monitoring at the site indicates that there is contamination above state cleanup levels.

Ecology and the PLPs are discussing the final details of the Draft Cleanup Action Plan (DCAP). This plan will describe in detail the cleanup actions to be taken. After drafting the cleanup action plan proposal, Ecology and the PLPs will prepare a draft Consent Decree (*legal agreement*) to implement the plan.

You will have an opportunity to comment on the DCAP and draft Consent Decree during a 30-day comment period before they are finalized. Following the comment period, the Consent Decree will be issued in court, and the final cleanup work will begin after the Engineering Design Report is completed.

Site Background

The Landsburg Mine site is a former underground coal mine located approximately 1.5 miles northwest of Ravensdale in southeast King County. The site is located directly south of the S.E. Summit-Landsburg Road and north of S.E Kent-Kangley Road (see map on page 3). The Cedar River is approximately 500 feet north of the site. The mine site occupies property currently owned by Palmer Coking Coal Company and formerly by the Plum Creek Timber Company, L.P.

Coal mining began along the Landsburg coal seam in the 1930s. In 1959, when the Landsburg seam was exhausted, mining shifted to the Rogers seam and continued there until 1975. Underground mining methods were used to extract the coal from the Rogers seam. These methods resulted in the ground surface above the abandoned mine

sinking down and forming a subsidence trench. This trench is roughly three-quarters of a mile long, 20- to 60-foot deep, and 60- to 100-foot wide.

During the late 1960s and early 1970s, the northern part of the trench was used as a disposal site for a variety of industrial wastes. The wastes were either contained in drums or were drained from tanker trucks. Records indicate that about 4,500 drums and 200,000 gallons of oily waste water and sludge were disposed of in this portion of the trench. A portion of the waste may have burned during fires in the early 1970s. Samples taken from recovered drums indicate that this material consisted of a wide range of organic and inorganic industrial waste, including paint waste, polychlorinated biphenyls (PCBs), cyanide, metals, and oily sludge. Disposal of land-clearing debris and construction debris in the trench continued until the early 1980s.

In late 1991, at Ecology's request, four of the Potentially Liable Persons (PLPs) removed the most accessible drums from the trench and constructed a fence to restrict access to the site. Following removal of the drums, Ecology and the PLPs began negotiations for a Remedial Investigation/Feasibility Study. The results of this study were the subject of public review and comment in March 1996.

Overview of Previous Groundwater Sampling

Extensive sampling of 14 private wells, seven monitoring wells at the mine site, and water flowing from the two

mine portals (the now collapsed north and south entrances to the mine) was conducted in 1996.

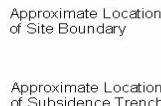
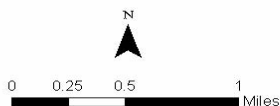
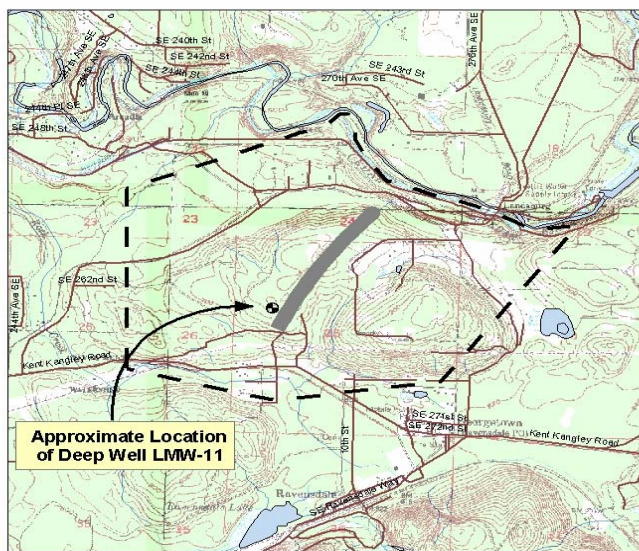
The well water and surface flows were analyzed for a wide variety of pollutants including metals, organic compounds, and inorganic compounds. The results of the testing indicate that the wastes disposed of in the mine have not affected ground water.

Additional sampling of monitoring wells at the site was conducted to check for contaminants in May 2000, October 2003, May 2004, August 2004, October 2004, May 2005 and February 2006. The results indicate that the site still had not affected ground water.

How can you be Involved?

You can provide valuable local input and knowledge that will be helpful as the cleanup plan is developed and implemented. We encourage you to stay informed and involved in the cleanup by:

- Signing up for the site mailing list (see contact information on page one)
- Attending future Ecology public meetings.
- Becoming familiar with the process by reading Fact Sheets and related documents as they become available.
- Providing feedback through comment periods public meetings.
- Sharing this information with any individuals or groups you think should be informed about the site.



Location Map of Landsburg Mine Site, Ravensdale



3190 160th Avenue SE
Bellevue, WA 98008-5452

Landsburg Mine Site:

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