



Division of Spill Prevention and Response Contaminated Sites Program

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DEC State of Alaska

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BENTLEY FAMILY TRUST SITE, TAX LOTS 201 AND 203



[View detailed information from the database on this site.](#)

Database Name: "[Bentley Trust Property Tax Lot 201](#)" and "[Bentley Trust Property Tax Lot 203](#)"

Status: Cleanup Complete – Institutional Controls

Location: North Fairbanks

Latitude: 64.856139 North

Longitude: 147.696167 West

DEC Contaminated Sites contact: James Fish, Project Manager, (907) 451-2117 (Fairbanks)

Contacts updated: July 18, 2014

PDF Version

Summary updated: January 2007

Click on photos or maps for larger versions.

Description

During the 1970s, Fairbanks was a hub of construction activity for the Trans Alaska Pipeline System. In those years, a construction and storage yard for the pipeline was located on part of Tax Lot 201, the southern portion of the adjoining Tax Lot 203, and the Johansen Expressway right-of-way between the tax lots. Vehicle maintenance and other heavy industrial businesses also operated on Tax Lot 201.

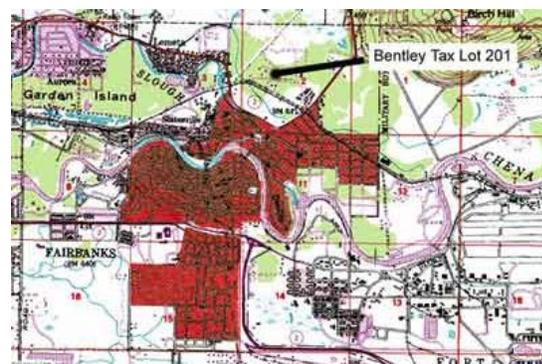
Significant areas of contaminated soil and groundwater have been found from those days gone by, caused by various leaks, spills and outdated disposal/storage practices of oil and hazardous wastes. Cleanup has allowed the area to be redeveloped with a mall and several large stores. An innovative collaborative process between multiple landowners has guided continued cleanup, even as the land became available for development.

The pipeline construction and storage yard and other businesses were abandoned in the early 1980s. Except for limited development in the eastern and southeastern portions of its 154-acres, Tax Lot 201 remained idle until the late early 2000s.

The Johansen Expressway, constructed in the late 1980s and early 1990s, now runs between the two lots. Gravel mining took place periodically on the 213-acre Tax Lot 203, from 1990 through 2002. Operators pumped significant quantities of groundwater from the pit areas in the summer of 1990. The significance of this act to the spread of contamination came to light only in the last several years.

The Bentley Family Charitable Trust, now the "Bentley Beneficiaries Trust," has owned the lots, and the Union Bank of California as Co-Trustee of the trust has overseen site investigation. DEC has provided regulatory oversight. In 2004, Alyeska Pipeline Service Company, as the operator of the old pipeline construction and storage yard, began to participate directly in the process to clean up the contaminant trichloroethylene (TCE) and the chemicals produced during its breakdown.

To facilitate sale of the land, site investigations began in the late 1990s by the removal and cleanup of known [underground storage tanks](#) and injections wells. Soil and [groundwater](#) contamination was also detected at several locations. The contaminants are petroleum



The general location of the areas of land called Bentley Trust Tax Lots 201 and 203 is north of the City of Fairbanks. The city is shown in red.



The two tax lots' general boundaries are noted on a Fairbanks borough aerial map. A larger version of the map appears below. (Source: Fairbanks North Star Borough, with DEC rendering)

hydrocarbons such as [diesel](#) and chlorinated solvents such as TCE - a degreasing agent. A variety of chemicals have been detected which are typical components or degradation products of petroleum products, chlorinated solvents, or both.

In the early 2000s, portions of Tax Lot 201 were sold and developed, beginning on the eastern side the property and proceeding westward over time. Continuing investigation revealed wide-spread groundwater contamination on the western portion of the lot. By 2003, a major source area of chlorinated solvent contamination was identified in the vicinity of the former Double Jointing and Coating buildings, associated with construction of the Trans Alaska Pipeline. The groundwater was contaminated to a depth of at least 30 to 40 feet below the water table.

A [plume](#) of groundwater contamination originates at the source area and extends off Tax Lot 201 toward the west/southwest. The plume has also migrated northward to Tax Lot 203, approaching the ponds, and the Lemeta and Palace Court Subdivisions further to the west/southwest. These subdivisions are a mixture of residential and commercial properties. A portion of the plume may also intercept a small section of Noyes Slough.

There is no evidence that the Bentley Family Charitable Trust caused the contamination. As the current landowner, however, the trust has been responsible under Alaska statutes for cleanup. Union Bank of California, as Co-Trustee, has worked diligently with DEC in meeting their legal responsibilities. Portions of Tax Lot 201 have been purchased and developed by several large stores - Home Depot, Wal-Mart, and Fred Meyer - and the responsibility for cleanup has at times shifted to the new landowners. Cleanup decisions have been made in a way which meets state standards and at the same time allows for redevelopment of the land.

Public Health and Environmental Concerns

Chlorinated solvents and petroleum products have contaminated the soil and groundwater. Analyses of groundwater and soil samples taken in 2001 and 2002 have indicated that TCE contamination resulted from several sources. A TCE [plume](#) likely extends off-site beyond Anna Avenue to the west-northwest and to the west of Harriet Avenue, and possibly south of College Road. Occupied properties in these areas are supplied with safe drinking water by a public water utility, so there is no need to consume groundwater from private wells. Two private residential wells used for gardening purposes (i.e., irrigation) were sampled in the fall of 2002 and found to have TCE levels above the safe drinking water levels. The well owners were advised not to use the wells for drinking water. As a precaution, DEC has requested that owners or occupants of any residences or businesses contact DEC if they are using private water wells for other than drinking water purposes.

The following link to the Agency for Toxic Substances and Disease Registry provides more information on the health effects from exposure to TCE: <http://www.atsdr.cdc.gov/tfacts104.html>.

Current Status

(See map below)

Northeast portion: In the 1970s, this was the site of a facility operated by a pipeline contractor, Surfcote (see picture at the bottom of the page). The remediation of soil and groundwater at took place largely before construction of a Wal-Mart store. An Air Sparging (AS)/Soil Vapor extraction (SVE) system was installed and run from late fall of 2002 until May of 2003. When Wal-Mart took possession of the property, the system and associated monitoring wells were removed for construction. DEC worked with Wal-Mart's environmental contractor to develop a pre-approved plan that would handle any unexpected environmental problems during construction, helping minimize construction delays during the short Fairbanks construction season. Wal-Mart performed follow-up sampling to verify that cleanup was complete.

Southeast portion: Fred Meyer bought and developed this area. Historically the area has seen limited use, and environmental soil samples did not detect any soil contamination. DEC worked with the company's environmental contractor to develop a pre-approved environmental plan for the construction phase.

Western portion: Wide-spread groundwater contamination on the western portion of Tax Lot 201 was identified and interim corrective action begun in 2003-2004. The source was a mystery at first. At the site of former Double Jointing & Coating facilities, the chlorinated solvent TCE was detected in the soil gas, the vadose zone soil (soil between the ground surface and the top of the water table) and groundwater. This strongly suggested that the localized area is a major source, where the solvent was initially discharged and much of the contaminant mass remains. Soil sampling during the installation of an AS/SVE system in November 2003 confirmed the source. ([See below](#) for "Citizen's Guide to Soil Vapor Extraction and Air Sparging".) Alyeska Pipeline Service Company began direct participation in the cleanup process in 2004.

With the consent of the Trust, Alyeska began gathering data that year to evaluate any risk posed by the contamination to human health and/or animals and plants. The human health and screening ecological risk assessment included the western portion of Tax Lot 201, the southwestern



At the end of construction of the pipeline, scrap pipe, other metal and drums were stockpiled on Tax lot 201 for hauling south. Shown above the scrap piles is an Alaska Railroad train. The railroad tracks are at the southern boundary of the property. (DEC photo, late 1970s.)



As contamination issues have been resolved, portions of Tax Lot 201 have been sold to a number of commercial establishments, such as Wal-Mart, seen beyond the intersection here. Other businesses are Home Depot, Fred Meyer, Lowe's, Chili's, a mall, several banks, (DEC photo, 2006)

portion of Tax Lot 203, and the Lemeta and Palace Court Subdivision areas, including a portion of Noyes Slough.

The TCE groundwater plume extends to a monitoring well on Antoinette Avenue. The concentration of TCE at this location is slightly above the safe drinking water standard of 5 micrograms per liter ($\mu\text{g/L}$) and may be influenced by an off-site source area. Also detected at this monitoring well was the chlorinated solvent tetrachloroethene (PCE), a common dry cleaning chemical. There may be a yet undiscovered PCE source area not associated with TL-201. If so, some or all of the TCE detected may come from the unknown source area, since TCE is a natural degradation product of PCE. This groundwater is not used for household or drinking purposes: all residences in the area are hooked up to city water.

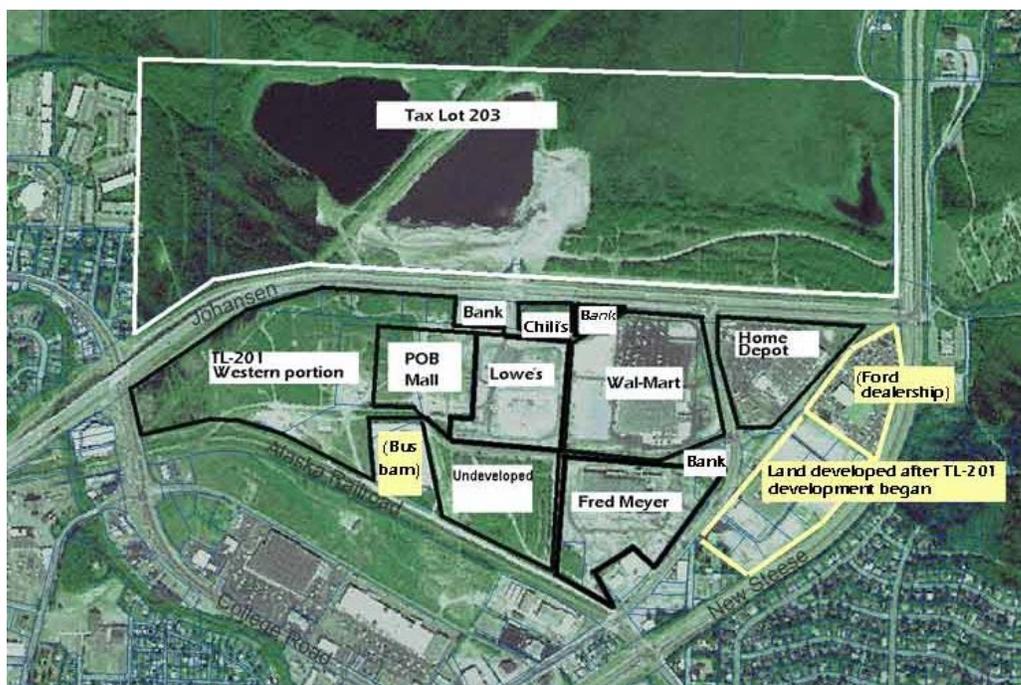
There is no source identified to date on Tax Lot 203 that may be contributing to the ground water plume. Investigators hypothesize that the intensive dewatering on Tax Lot 203 in 1990s drew the groundwater contaminant plume from Tax Lot 201 toward the gravel pits.

After considering the risk assessment, DEC has determined that contamination at Tax Lots 201 and 203 have been adequately described and documented and that the risks to human health or the environment are extremely low. Based on this determination, ADEC will not require any further active remediation at this site and will accept monitored [natural attenuation](#) (periodic sampling to track the natural breakdown of contaminants) as the approved treatment methodology to address the remaining contamination. This decision is subject to several conditions, including:

1. Land use restrictions for onsite Tax Lot 201 prohibit use of ground water and off site transport of contaminated soils without DEC approval.
2. Land use restrictions for onsite Tax Lot 203 prohibit use of ground and surface water without DEC approval.
3. Alyeska Pipeline Service Company will implement a long-term ground water monitoring plan.

The frequency of groundwater monitoring will likely change (either increase or decrease) as additional data is collected. Typically it takes multiple sampling events over several years before concentration trends become evident and predictable.

The groundwater will be monitored until it attains drinking water standards. Groundwater monitoring will continue twice yearly for the short term. All of the monitoring wells on Tax Lot 201 were removed for construction purposes. Alyeska will replace them as construction allows. Semi-annual ground water monitoring will continue with the remaining monitoring wells on Tax Lot 203 and within the Lemeta and Palace Court Subdivisions.



Tax Lot 201, with its various owners, is shown here in 2006 within the black boundaries. It is approximately 154 acres in size and located between the Johansen Expressway (middle of photo), the Old Steese Highway, and the Alaska Railroad right-of-way. The white boundaries depict the approximate edges of Tax Lot 203, with ponds visible near its center. Areas marked in yellow are not part of either tax lot. (Fairbanks North Star Borough aerial photo, with DEC notations.)

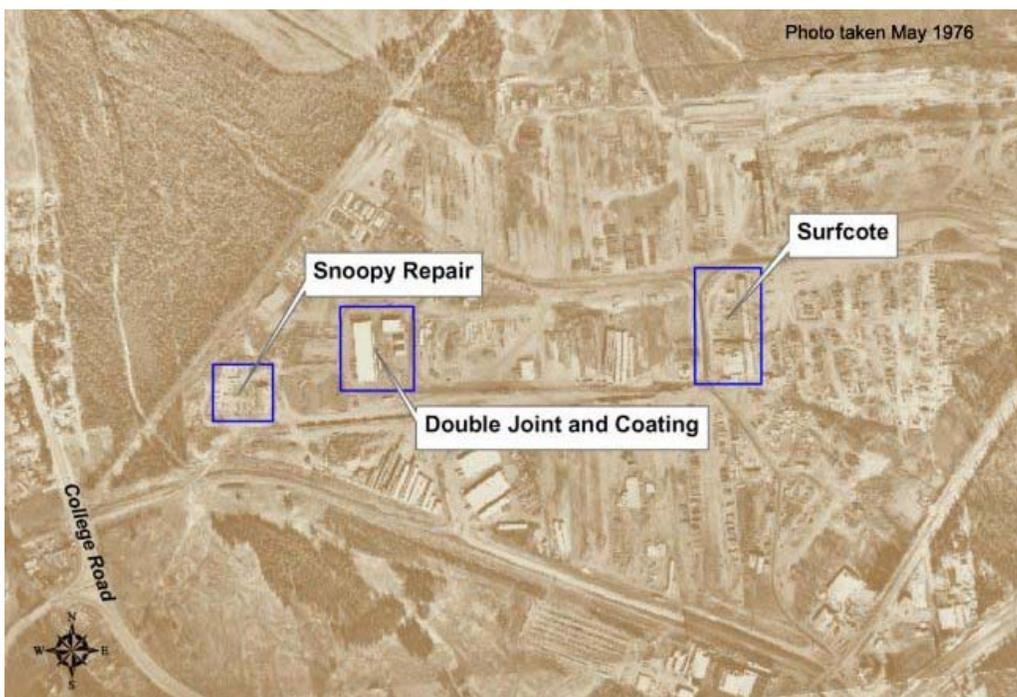
More Information

- ▶ Record of Decision for site closure ([PDF 544K](#)), January 2007
- ▶ Fact Sheet, on the risk assessment ([PDF 25K](#)), November 2006
- ▶ Fact Sheet ([PDF 98K](#)), February 2004
- ▶ Project Areas ([PDF 1.07M](#)), February 2004
- ▶ Groundwater monitoring figure ([PDF 2.92M](#)), February 2004
- ▶ TCE Concentrations in Soil ([PDF 1.37M](#)), February 2004

- ▶ EPA's "Citizen's Guide to Soil Vapor Extraction and Air Sparging" ([PDF 84K](#)) January 2003
- ▶ Fact Sheet ([PDF 81K](#)), January 2003, Cover Letter ([PDF 879K](#)), Figures ([PDF 639K](#))
- ▶ Fact Sheet, ([PDF 20K](#)) January 2002



This panoramic composite photo shows the the empty Tax Lot 201, looking west and southwest. Groundwater has carried TCE contamination to this area, proposed for development. Restrictions on the use of groundwater will prevent users of any development from exposure to this contamination. The area will have city water available. (DEC photo 2006.)



Three pipeline-era businesses, shown here in operation in 1976, were sources of various kinds of contamination.

