Third Periodic Review
Schade Brewery

528 East Trent Avenue, Spokane, Spokane County
Facility Site ID: 6724162, Cleanup Site ID: 4643

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

October 2023

Document Information

This document is available on the Department of Ecology's Schade Brewery cleanup site page.[1]

Related Information

- Facility Site ID: 6724162
- Cleanup Site ID: 4643

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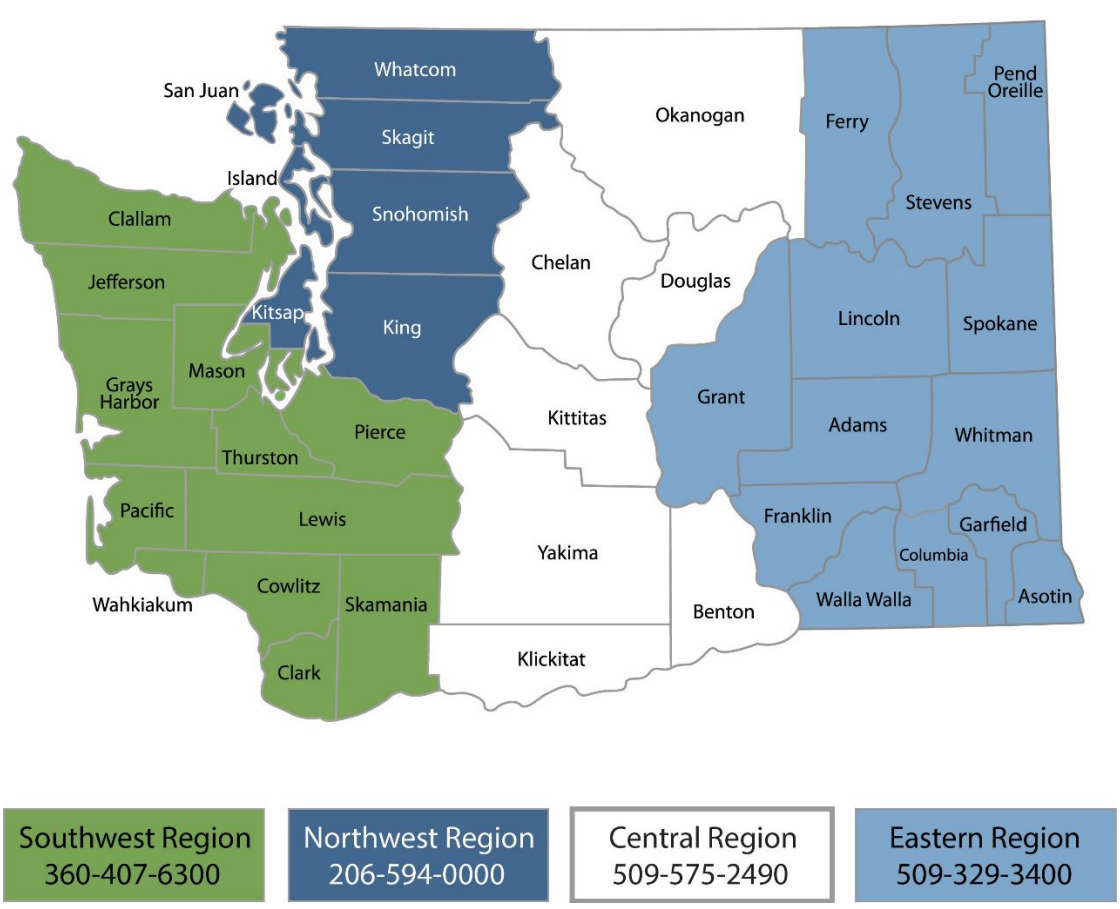
[1] https://apps.ecology.wa.gov/cleanupsearch/site/4643
[2] https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup
[3] https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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Introduction

The Washington State Department of Ecology (Ecology) reviewed post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the Schade Brewery facility (Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA)[4] regulations, Washington Administrative Code (WAC) 173-340[5]. The first and second periodic reviews were completed in November 2011 and December 2017, respectively. This is the third periodic review conducted for this Site.

Cleanup activities at this Site were completed under Voluntary Cleanup Program (VCP) Project EA0112B. Residual concentrations of petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) that exceeded MTCA cleanup levels remain on the property. The MTCA cleanup levels for soil and groundwater are established under WAC 173-340-740[6] and WAC 173-340-720,[7] respectively.

Ecology determined institutional controls in the form of a restrictive covenant would be required as part of the cleanup action for the Site. WAC 173-340-420(2)[8] requires Ecology to conduct a periodic review of certain sites every five years. For this Site, a periodic review is required because the department issued a no further action (NFA) opinion at the site and institutional controls were required as part of the cleanup action.

When evaluating whether human health and the environment are being protected, Ecology must consider the following factors (WAC 173-340-420(4)):

a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site

b) New scientific information for individual hazardous substances or mixtures present at the site

c) New applicable state and federal laws for hazardous substances present at the site

d) Current and projected site and resource uses

e) The availability and practicability of more permanent remedies

f) The availability of improved analytical techniques to evaluate compliance with cleanup levels

[4] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Rules-directing-our-cleanup-work/Model-Toxics-Control-Act
[5] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340
[6] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740
[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720
[8] https://app.leg.wa.gov/wac/default.aspx?cite=173-340-420

Ecology publishes a notice of all periodic reviews in the *Site Register* and provides an opportunity for public comment.

Summary of Site Conditions

Site description and history

The Site is occupied by a commercial office space. Spokane Falls Boulevard is to the west and north of the Site, while Front Avenue comprises the Site's southern property boundary. A portion of the northeast portion of the Site is immediately adjacent to the southern bank of the westerly-flowing Spokane River, south of the Trent Avenue Bridge.

The Schade Brewery building was built in approximately 1903 and used at various times until the 1950s as a beer and soda brewing/bottling plant. Records show it may have been used as a packing plant and homeless shelter from 1918 to 1933. Portions of the Site and northern adjacent property were used for the Inland Metals salvage business. It appears most of the actual salvage operations (for example, general material dismantling, automobile crushing, material storage, etc.) were conducted on the northern (now a commercial office building with other improvements) and eastern adjacent Site parcels. The Schade Brewery building and parcel were used for the storage and sale of salvaged metals and other materials from Inland Metals operations. The eastern Site parcel includes portions of a former Great Northern Pacific Railroad sidetrack along the Spokane River bank and portions of the vacated Hatch Street right-of-way.

A vicinity map is in Appendix A, and a Site plan is in Appendix B.

Site investigations

The Inland Metals portion of the Site has been the subject of regulatory compliance assessment and review by Ecology and the U.S. Environmental Protection Agency (USEPA). The Inland Metals site was placed on the Ecology Hazardous Sites List in March 1991 with a ranking of 2. A prior owner completed remedial excavations and building demolition activities on the Inland Metals site from 1991 through 1992. Ecology issued an NFA determination on October 23, 1992, for the Inland Metals site, including the land associated with portions of the Site parcels.

The USEPA also conducted a "Superfund" Site investigation of the Inland Metals site under authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1995. USEPA correspondence dated March 31, 1995, to a prior owner indicates they did not anticipate further investigation.

The prior owner of the property conducted independent remedial investigations at the Site in 2001. The investigations included a series of nine test pits and three exploratory borings that identified concentrations of heavy oil-range petroleum hydrocarbons (ORPH), PCBs,

carcinogenic PAHs (cPAHs), arsenic, cadmium, and lead above MTCA Method A Soil cleanup levels for unrestricted land uses within the test pit samples.

In early 2004, SLR International Corporation (SLR) conducted a subsurface test pit exploration and Remedial Investigation[9] of the Site. The Remedial Investigation identified residual impacted soils on the Site with diesel-range petroleum hydrocarbons (DRPH), ORPH, cadmium, lead, PCBs, and cPAHs as the primary contaminants of concern above MTCA cleanup levels. The laboratory results for the soil samples and areal extent of the investigated contaminant of concerns can be found in the Site Remedial Investigation Report Tables 3 – 6 and Figures 5 – 8.

The contaminant sources appear to have been the primary result of former Inland Metals operations, including the dismantling of metals-built equipment and materials, the decommissioning of electrical transformers and other electrical components, the crushing of automobiles and other large metal objects, general salvage and metal scrapping operations, burning waste materials, and oiling unimproved soil or gravel surfaces for dust suppression using generated or imported waste oils. Lead and cadmium paint debris may be suspected as potential contaminants from metal and other material coatings generated with the salvage operations. Railroad operations on the former railroad right-of-way may have also contributed to petroleum hydrocarbon, total metals, and PAH contamination.

Other off-Site sources may also have contributed to these conditions, either from nearby air emissions, soil fate and transport mechanisms, or other historical land uses in the general area. No attempt was made to identify or characterize any potential off-Site contaminants sources that could have contributed to on-Site conditions.

Cleanup actions

In February 2005, soils impacted with PCB concentrations exceeding the cleanup level of 1 milligram per kilogram (mg/kg) were excavated and removed from the Site. Three areas of concern were previously identified: the North Alley (West and Central areas), TP5, and TP7. Soil sample results from these areas indicated the highest PCB concentration identified was 6.14 mg/kg.

The final excavation limits for the West North Alley (WNA) were approximately 15 feet by 42 feet, with depths ranging from 3 to 5.5 feet below ground surface (bgs). Eight confirmation samples were collected from the WNA area. A second confirmation sampling event was required for the south sidewall and east bottom portions of the excavation.

The final excavation limit for the Central North Alley (CNA) was approximately 15 feet by 52 feet, with depths ranging from 4 to 9.5 feet bgs. The final excavation for the TP5 area was approximately 12 feet by 13 feet, with depths ranging from 2 to 3 feet bgs. The final excavation

[9] https://apps.ecology.wa.gov/cleanupsearch/document/128153

dimensions for the TP7 area were approximately 25 feet by 25 feet, with depths ranging from 3 to 6 feet bgs.

A total of 26 confirmation soil samples and two duplicate samples were collected from the PCB-impacted areas. All results were non-detect or below cleanup levels, indicating all PCB-impacted soils had been removed. Approximately 610 tons of potential PCB-impacted soil were excavated and disposed of at the Greater Wenatchee Regional Landfill, which is permitted to receive PCB soil wastes with concentrations less than 50 mg/kg.

Two additional remedial excavations were required during Site development, including installing a utility trench in the North Alley and a pedestrian walkway along the north side of the Site. Soils from these excavations were primarily impacted with DRPH, ORPH, cadmium, lead, and PAHs. Since the VCP opinion letter specified that any impacted soil encountered during Site construction activities be removed, these soils were profiled and transported to landfill disposal in Wenatchee. Some residual contaminated soil remained onsite following construction activities.

Engineering controls at the Site included the asphalt paving (impervious surface) of the alley and eastern portions of the Site to prevent human exposure pathways, surface water infiltration through the affected areas, and potential migration of residual contaminants of concern. Approximately 15,000 cubic yards of clean fill material was imported for Site grading and leveling. The clean fill material limited the "cut" excavation, disturbance of underlying impacted soils, and amount of waste material generated for offsite disposal.

The eastern parking area, North Alley, and eastern portion of Front Street along the southern Site property boundary were paved with asphalt.

Whipple Engineering worked with the City of Spokane in designing a storm water management system to meet discharge, treatment, and on-Site management for local and state codes, including engineering controls required to meet MTCA standards and as outlined in the cleanup action plan (CAP). A catch-basin collections and associated bio-filtration terrace (swale) system was constructed to collect and treat stormwater from the North Alley and eastern parking area. Stormwater is collected from the North Alley into a catch-basin with a sump pump system to move the water to the bio-filtration terrace. The surface grading in the eastern parking area directs surface run-off from the asphalt parking areas into various catch-basins and pipes the water to the bio-filtration terrace. The western parking area along Trent Avenue has a stormwater treatment system in place that directs surface water run-off from the asphalt parking areas into a treatment swale near the west entrance at Trent Avenue.

Site landscaping for the eastern parking area is designed around elevated or mounded islands within the asphalt parking surfaces. The design directs surface run-off from precipitation to the asphalt and catch-basins for treatment in the bio-filtration terrace. The landscape islands were lined with an impermeable geo-textile membrane to prevent infiltration.

Cleanup standards

Cleanup standards include cleanup levels, the location where these cleanup levels must be met (point of compliance), and any other regulatory requirements that apply to the Site. WAC 173-340-704[10] states MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used. Method B may be used at any site and is the most common method for setting cleanup levels when sites are contaminated with substances not listed under Method A. Method C cleanup levels may be used to set soil and air cleanup levels at industrial sites.

MTCA Method A cleanup levels for unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be routine, few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance.

The point of compliance is the area where the cleanup levels must be attained. For soil cleanup levels based on the protection of groundwater, as they are for this Site, the point of compliance is established as soils throughout the Site (standard point of compliance).

For groundwater, the point of compliance is the point or points where the groundwater cleanup levels must be attained for a site to be in compliance with the cleanup standards. The standard point of compliance shall be established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest depth that could potentially be affected by the Site.

Restrictive Covenant

Ecology determined that institutional controls would be required as part of the cleanup action to document the remaining contamination, protect the cleanup action, and protect human health and the environment. On May 1, 2006, institutional controls in the form of a Restrictive Covenant[11] (Covenant) were recorded for the Site. During the periodic review in 2011, it was discovered that the covenant contained an incorrect tax parcel number. An amended environmental covenant was drafted in 2011 that corrected the discrepancy; however, it has not yet been recorded. The existing covenant imposes the following limitations:

> Section 1. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the capped areas include: drilling, digging, placement of any

[10] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704
[11] https://apps.ecology.wa.gov/cleanupsearch/document/83093

objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike, or similar item, bulldozing or earthwork, or any activities that may cause migration of the hazardous substances.

Section 2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3. Any activity on the Prope1iy that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property, except that the owner need to give advance written notice to Ecology if the Owner leases a subunit of a building on the Property, when such lease expressly prohibits any activity which is inconsistent with the terms of this Restrictive Covenant pursuant to Section 5. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 5. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, and to inspect records that are related to the Remedial Action.

Section 8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Restrictive Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on August 31, 2023, there were no indications the integrity of the remedial action has been compromised. There was no evidence of undocumented Site excavation or disturbance activities, and no visual indications of

disturbance of the Site surface. The Site is operating as a commercial office space and is surrounded by a mix of commercial-use properties. A photo log is in Appendix C.

Direct contact

The cleanup actions were intended to eliminate exposure to contaminated soil at the Site. Exposure pathways to contaminated soils by ingestion and direct contact were reduced by remedial excavation and by the presence of protective Site surfaces including asphalt, building foundations, and concrete. The Site is fenced and has restricted access, further reducing the possibility of public exposure to residual contamination at the Site.

The asphalt, building foundations, and concrete appears to be in satisfactory condition, and no repair, maintenance, or contingency actions are required at this time.

Protection of groundwater

Soils with petroleum hydrocarbons, heavy metals, and cPAHs at concentrations exceeding MTCA Method A cleanup levels remain at the Site; however, most of the contaminated soil source material has been removed. The soil-to-groundwater exposure pathway has also been reduced by the surface cap and stormwater management system, which serve to minimize stormwater infiltration through residual impacted soils.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2006. The Covenant remains active and discoverable through the Spokane County Auditor's Office. Ecology found no evidence a new instrument has been recorded that limits the effectiveness or applicability of the Covenant. This Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup action and prohibits any use of the property that is inconsistent with the Covenant, unless approved by Ecology in advance. This Covenant ensures the long-term integrity of the cleanup action will be protected.

New scientific information for individual hazardous substances or mixtures present at the Site

There is no new relevant scientific information for the hazardous substances remaining at the Site.

New applicable state and federal laws for hazardous substances present at the Site

There are no new applicable or relevant state or federal laws for hazardous substances remaining at the Site.

Current and projected Site and resource uses

The Site is used for commercial purposes. There have been no changes in current or projected future Site or resource uses. The current Site use is not likely to have a negative impact on the protectiveness of the cleanup action.

Availability and practicability of more permanent remedies

The remedy implemented included containing hazardous substances, and it continues to be protective of human health and the environment. While more permanent remedies may be available, they are still not practicable at this Site.

Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the cleanup action were capable of detection below the selected MTCA cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

Conclusions

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, the cleanup action is determined to comply with cleanup standards under WAC 173-340-740(6)(f), since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Covenant for the property is in place and is effective in protecting human health and the environment from exposure to hazardous substances and the integrity of the cleanup action; however, the existing covenant should be amended to correct a tax parcel number.

Based on this periodic review, Ecology has determined the requirements of the Covenant are being followed. No additional cleanup actions are required by the property owner at this time. The property owner is responsible for continuing to inspect the Site to ensure the integrity of the cleanup action is maintained.

Next review

Ecology will schedule the next review for the Site five years from the date of this periodic review. If additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years after those activities are completed.

References

Ecology. Site Visit. August 31, 2023.

Ecology. *Second Periodic Review*. December 1, 2017.

Ecology. "No Further Action Determination Letter." May 4, 2006.

Ecology. *Restrictive Covenant*. May 1, 2006.

Ecology. *VCP Review of Schade Brewery*. February 21, 2006.

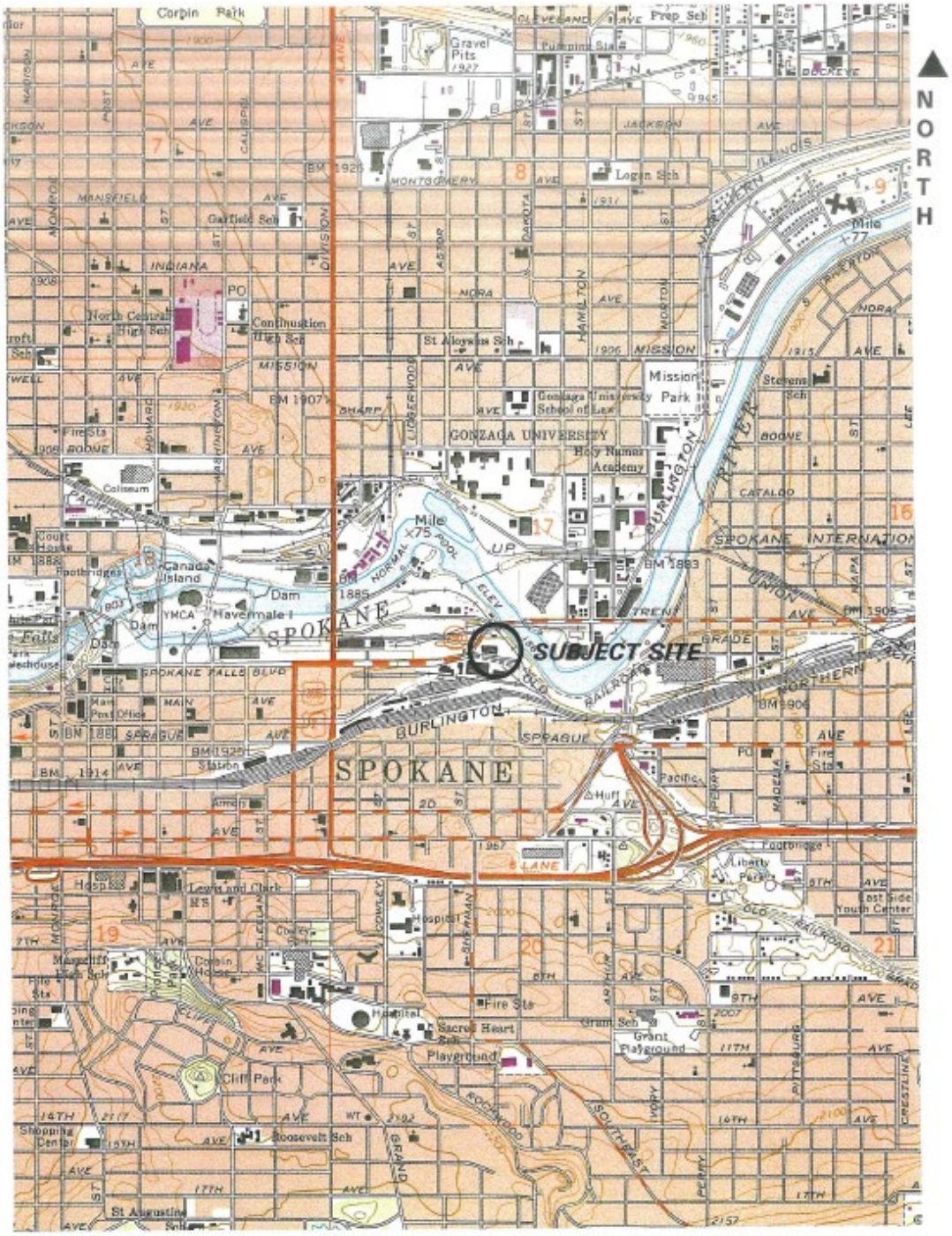
LFR Levine-Frickle. *Site Closure Report*. December 16, 2005.

SLR International Corp. *Independent Remedial Action Report Cleanup Action Plan*. November 2004.

SLR International Corp. *Remedial Investigation*. May 2004.

Kleinfelder, Inc. *Preliminary Phase II Subsurface Soil Characterization*. August 6, 2001.

Appendix A. Vicinity Map

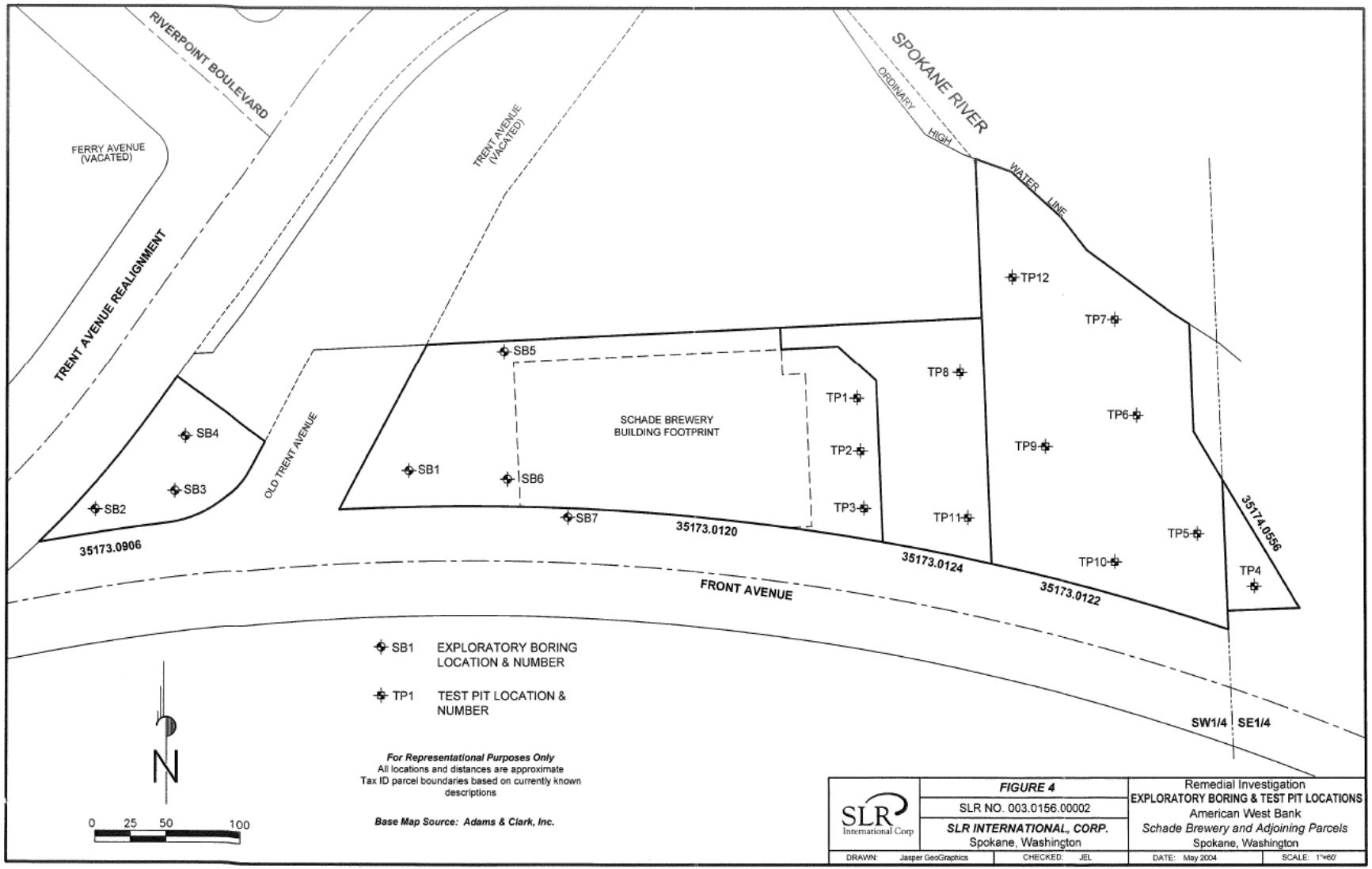


SOURCE: USGS 7.5 Minute Topographic Quadrangle, Spokane NW, Washington (1986)

FIGURE 1	SITE LOCATION MAP	DATE: May 2004
PN 003.0156.00002	Schade Brewery Property	SCALE: 1:24,000
SLR International Corp.	528 East Trent Avenue	DRWN: USGS
Spokane, Washington	Spokane, Washington	CHKD: SN

SLR International Corp

Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Schade Tower south side of the building – from the east

Photo 2: Schade Tower north side of the building – from the west

Photo 3: Schade Tower north side of the building – from the west

Photo 4: Schade Tower south side of the building – from the east