Second Periodic Review
Corner Express (Texaco)

1131 Morgan Street, Davenport, Lincoln County
Facility Site ID: 85214652, Cleanup Site ID: 7310

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

June 2023

Document Information

This document is available on the Department of Ecology's Corner Express (Texaco) cleanup site page.[1]

Related Information

- Facility Site ID: 85214652
- Cleanup Site ID: 7310
- Underground Storage Tank (UST) Site ID: 6334
- Leaking Underground Storage Tank (LUST) Site ID: 5750

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Website: Washington State Department of Ecology[2]

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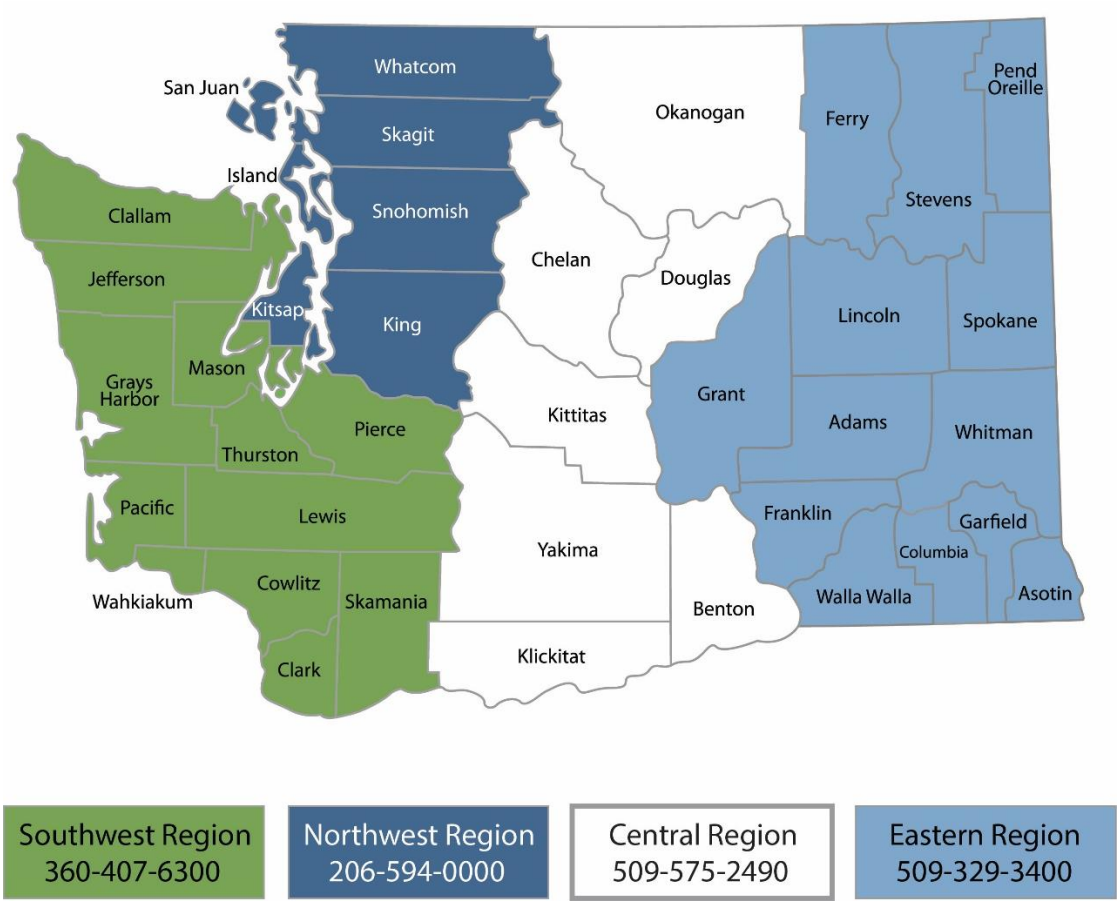
[1] https://apps.ecology.wa.gov/cleanupsearch/site/7310
[2] https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup
[3] https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility

Department of Ecology's Regional Offices

Map of Counties Served



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 Corner Express (Texaco) cleanup site (Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). This is the second periodic review conducted for this Site. Ecology completed the first periodic review in February 2015.

Cleanup activities at this Site were completed under Enforcement Order No. 02TCPER4991. Residual concentrations of petroleum hydrocarbons that exceeded MTCA cleanup levels remain on the property. The MTCA cleanup levels for soil and groundwater are established under WAC 173-340-740[4] and WAC 173-340-720,[5] respectively.

Ecology determined institutional controls in the form of an environmental covenant would be required as part of the cleanup action for the Site. WAC 173-340-420(2)[6] requires Ecology to conduct a periodic review of certain sites every five years. For this Site, a periodic review is required because an institutional control and/or financial assurance is 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

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

[4] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740
[5] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720
[6] https://app.leg.wa.gov/wac/default.aspx?cite=173-340-420

Summary of Site Conditions

Site description and history

The Site is bordered by State Highway 2 to the north, and residential homes and apartments to the west, east, and south. A grocery store and commercial buildings are on the north side of Highway 2.

Existing structures at the Site include a slab-on-grade retail petroleum service station convenience store. A pump island with two dispensers is to the north of the building under a canopy. There are two underground storage tank (UST) compartments at the Site: one 11,000-gallon compartment containing an 11,000-gallon gasoline UST and an 8,000-gallon compartment containing a 4,000-gallon gasoline UST and a 4,000-gallon diesel UST. The USTs are beneath a concrete slab to the northwest of the building as illustrated on the Site plan.

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

Site investigations

In June 2000, Ecology advised the potentially liable person (PLP), Marvin Bain, of non-compliance issues regarding five USTs at the Site. Ecology provided a Notice of Correction and a Compliance Schedule for the tanks to be brought into compliance. Ecology received no response.

In December 2000, Ecology identified gasoline, as free product, in a groundwater monitoring well less than 100 feet north and hydraulically downgradient of the Site. This well had been installed as part of a remedial investigation at a former gasoline station directly northeast of Corner Express. Based on these findings, Ecology issued Emergency Enforcement Order No. DE00TCPER-1901 for the Site. This order directed Marvin Bain to address the potential threat of a continuing release from the UST system by removing all product from the tanks and distribution lines and inspecting the system for any obvious system failures. The limited investigation included a review of inventory records and service, repair, and system testing records. The results of the investigation resolved the immediate threat posed by petroleum product remaining in the UST system but was inconclusive regarding any historical release at the Site.

In April 2001, Ecology issued Enforcement Order No. 01TCPER-2689. This order directed the property owner to complete a site assessment to determine if there had been a release at the Site. The site assessment/investigation was completed by Budinger & Associates, Inc. in June 2001. This investigation included drilling soil borings and installing three monitoring wells. This investigation identified petroleum contamination in soil and groundwater at the subject property. As a result of the site assessment, Ecology determined there had been a release(s) of petroleum hydrocarbons associated with the UST system to soils and groundwater at the Site. The Enforcement Order required a remedial investigation and feasibility study (RI/FS) to

determine the nature and extent of any release and to identify and evaluate appropriate methods of remediation.

In November 2001, additional soil borings and installation of three additional monitoring wells were completed at the Site. The results identified a limited area of soil contamination surrounding the UST system and a larger area of impact to groundwater. The final RI/FS was submitted to Ecology in January 2002. It included a brief evaluation of the types and feasibility of various remedial options for the Site.

Ecology published the final Cleanup Action Plan (CAP) for the Site and issued Enforcement Order No. 02TCPER-4991 on January 22, 2003, requiring the property owner to implement the CAP. The plan included the following actions:

- Removal of the UST system and related piping to the point it enters the pump island.
- Excavation and proper disposal of petroleum-contaminated soils encountered during UST system removal.
- Installation of a groundwater air sparge system and soil vapor extraction system.
- Backfilling the excavation with appropriate materials and providing an impervious cover.
- Implementing quarterly sampling and chemical analysis of groundwater until remediation is complete.
- Imposing an environmental covenant to ensure that future activity at the Site does not adversely impact the remedial action or cause further release or migration of contaminants.

Cleanup actions

Underground storage tank removal

The remedial actions identified in the CAP were initiated in July 2003. During UST removal, petroleum-contaminated soils were identified and removed from the excavation. Groundwater in the excavation exhibited minor petroleum sheen. The loose soils about the perimeter and bottom of the excavation were removed until relatively competent fractured rock remained at an average depth of 12 feet below ground surface (bgs). Evidence of petroleum contamination was observed in the basalt in the northeast comer of the excavation, bottom of the excavations, and below a depth of about 6–8 feet bgs throughout perimeter of the excavation.

A total of 237 tons of petroleum-contaminated soils were hauled off-site for disposal. Approximately 150 cubic yards of unaffected overburden was returned to the UST excavation as backfill.

Laboratory analysis of confirmation samples indicated the presence of gasoline and diesel-range petroleum contamination at concentrations exceeding MTCA Method A cleanup levels; however, the excavation terminated in basalt bedrock, and these samples were collected from residual loose soils and are not necessarily representative of contaminant concentrations

remaining in the surrounding fractured bedrock. Due to the presence of shallow bedrock at the Site, additional remedial excavation was not feasible.

Groundwater treatment system installation

Per the CAP, a groundwater treatment system was installed during the backfill of the UST excavation. The system consisted of perforated drainpipe to collect groundwater, which is discharged into a sump and pumped to the surface prior to re-infiltration. The sump is connected to infiltration piping on the upgradient side of the excavation. As a result, the treatment system continually extracts and re-infiltrates groundwater from the former tank pit, serving to flush and hydraulically control groundwater. Additional perforated piping was installed for soil vapor extraction. The system was designed so groundwater could be extracted and discharged from multiple points in the excavation, and soil vapor extraction piping could be used for both vapor extraction and soil aeration. The blower and pump have broken since the last periodic review, and the property owner does not plan to replace them. The system is no longer running.

Groundwater monitoring

Groundwater monitoring has been conducted semi-annually, at a minimum, since monitoring wells were installed at the Site in 2001. Monitoring wells MW-2, MW-5, MW-8, and MW-13 are used to evaluate Site cleanup performance. MW-30 serves as a perimeter well to verify that contamination is not leaving the Site. Groundwater monitoring wells are shown on the site plan in Appendix B.

The most recent groundwater sampling event conducted in March 2023 indicates several wells at the Site still contain concentrations of gasoline-range total petroleum hydrocarbons and benzene exceeding MTCA Method A cleanup levels.

Benzene remains in groundwater over 15 years after the Site USTs were removed and the treatment system was implemented. Wells MW-5 and MW-8, which are downgradient of the former tank pit, continue to show fluctuations in benzene concentrations well above MTCA Method A cleanup levels that indicate source material remains at the Site. However, the perimeter well, MW-30 has remained clean since 2011. This indicates that the plume of contaminated groundwater appears stable or shrinking and is not migrating off-site; therefore, it does not currently pose a threat to human health or the environment.

Groundwater monitoring will continue at the Site, per the CAP and Enforcement Order No. 02TCPER-4991, until remediation is complete at the Site.

Table 1. Summary of analytical results since 2015 (15 sampling events)

Sample location	Number of benzene exceedances since 2015	March 2023 result (µg/kg)	Number of TPH-G exceedances since 2015	March 2023 result (µg/kg)
MW-2	9	7.44*	14	2,660*
MW-5	15	39.0*	15	6,200*
MW-8	14	16.8*	5	370
MW-13	10	ND	15	2,300*
MW-30	0	ND	0	ND
Treatment system	8	99.8*	2	ND

µg/kg = micrograms per kilogram
ND = non-detect
TPH-G = gasoline-range total petroleum hydrocarbons

Notes: Asterisks indicate result exceeds MTCA Method A cleanup level. The MTCA Method A cleanup level is 5 µg/kg for benzene and 800 µg/kg for TPH-G.

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[7] 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).

[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704

The Site has a conditional point of compliance for groundwater, which was established at the property boundary.

Environmental 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 January 14, 2014, institutional controls in the form of an environmental covenant[8] (Covenant) were recorded for the Site.

The Covenant recorded for the Site imposes the following limitations:

1.
    a. No groundwater may be taken for any use from the Property.
    b. A portion of the Property contains petroleum hydrocarbon contaminated soil, some of which may be located under the building on this Property. The Owner shall not alter, modify, or remove the existing structure in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.
    c. 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/paved areas include: drilling, digging, placement of any 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.
2. Any activity on Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
3. Any activity on the Property 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.
4. The Owner of the property must give thirty (30) days advance written notice to Ecology of the Owner's intent to convey any interest in the Property. 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.

[8] https://apps.ecology.wa.gov/cleanupsearch/document/83174

5. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.
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 Covenant. Ecology may approve any inconsistent use only after public notice and comment.
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, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.
8. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this 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

Ecology visited the Site May 17, 2023. The Site is currently operating as an Exxon gas station and is in similar condition as it was during the previous periodic review. A photo log is in Appendix C.

Direct contact

The cleanup actions were intended to eliminate exposure to contaminated soil and groundwater at the Site. Exposure pathways to contaminated soils by ingestion and direct contact were reduced by remedial excavation and by the presence of an impermeable Site surface. The asphalt surface shows evidence of cracking and degradation; however, the asphalt surface is only required to prevent physical contact with contaminated soils and is not intended to be impermeable to prevent infiltration.

Protection of groundwater

Soils with petroleum contamination at concentrations exceeding MTCA Method A cleanup levels remain at the Site; however, most contaminated soil source material has been removed.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2014. The Covenant remains active and discoverable through the Lincoln County Recorder. 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.

- Groundwater cleanup levels have not been met at the Site; however, the contaminated groundwater plume is stable and is not migrating off-site. Institutional controls prevent the extraction and exposure of contaminated groundwater beneath the Site.
- 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.

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 such as the surface cover/cap.

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

Budinger and Associates. *UST Removal and Groundwater Treatment System Installation.* September 18, 2003.

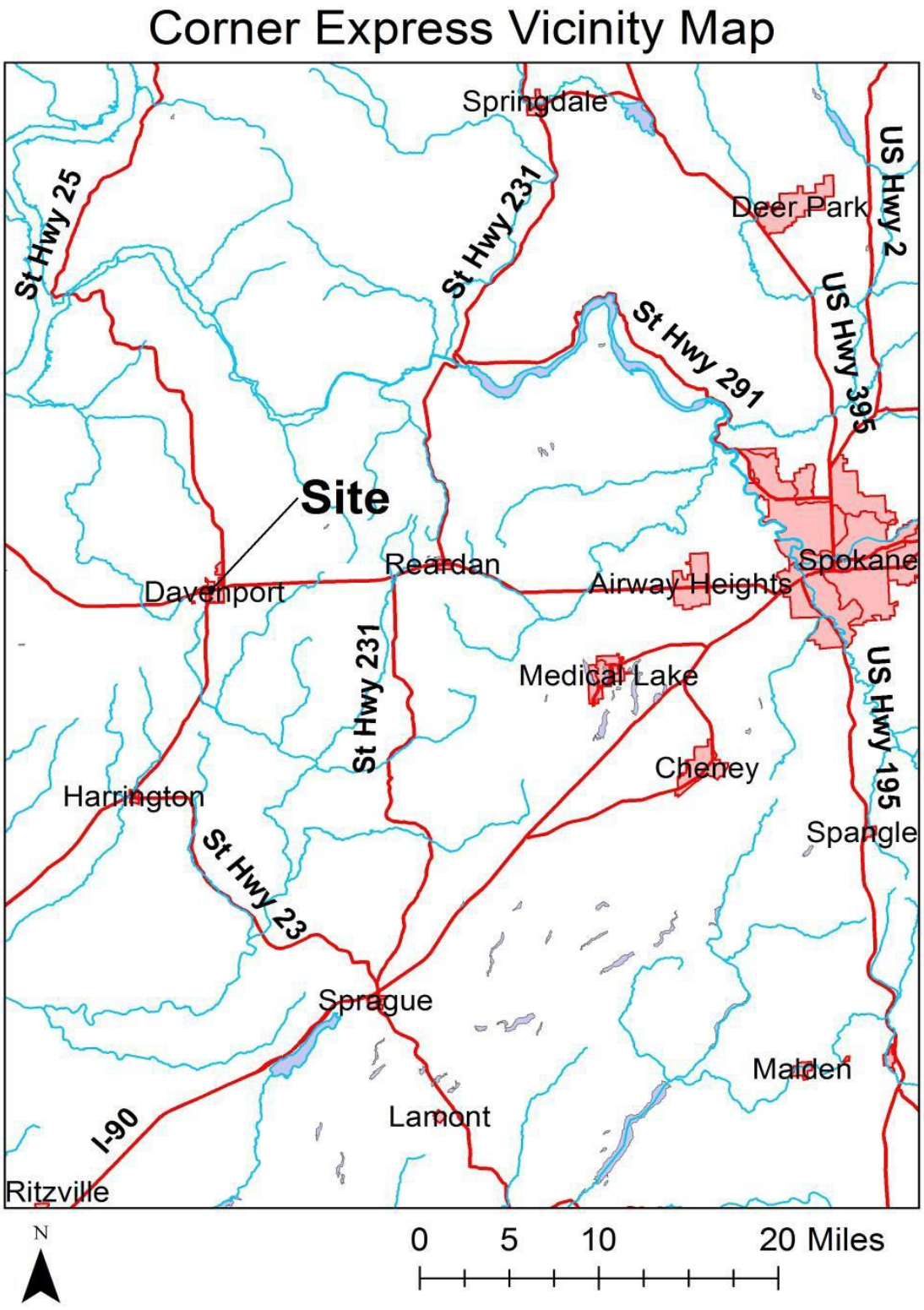
Budinger and Associates. *Results of Groundwater Sampling and Chemical Analysis*. April 20, 2023.

Ecology. *Environmental Covenant*. January 15, 2014.

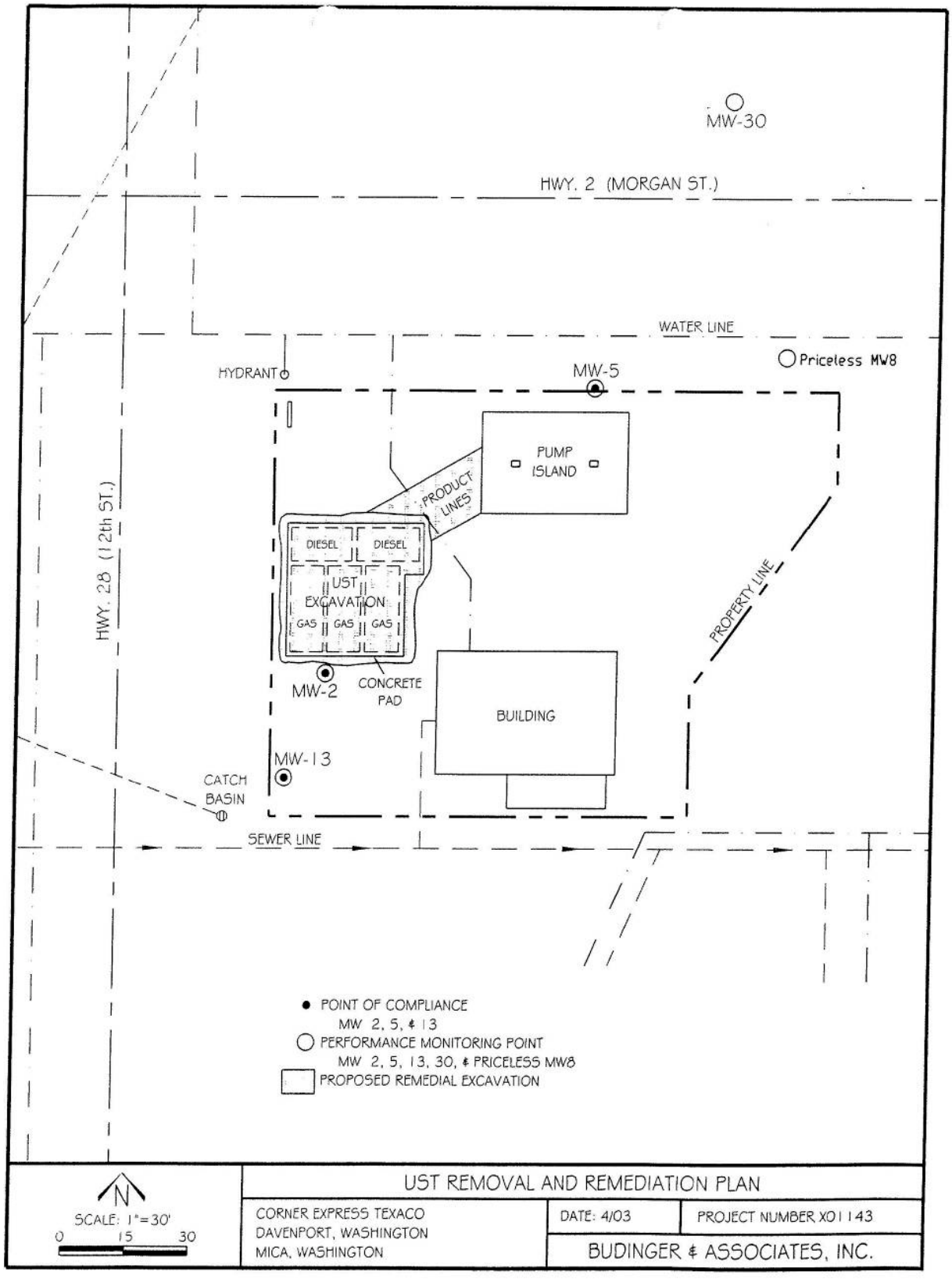
Ecology. *First Periodic Review*. February 2015.

Ecology. Site visit. May 17, 2023.

Appendix A. Vicinity Map



Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Corner Express Site – from the west

Photo 2: Tank pit and pump island with MW-2 in foreground – from the southwest

Photo 3: MW-8, storefront, and pump island – from the northeast

Photo 4: Pump island – from the east