



Periodic Review Unocal SS 2839

**301 1st Street, Cheney, Spokane County
Facility Site ID 42896988, Cleanup Site ID 6066**

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

October 2022

Document Information

This document is available on the Department of Ecology's [Unocal SS 2839 cleanup site page](#)¹.

Related Information

- Cleanup site ID: 6066
- Facility site ID: 42896988

Contact Information

Toxics Cleanup Program

Eastern Regional Office
Ted Uecker, Site Manager
4601 N. Monroe St.
Spokane, WA 99205
Phone: 509-342-5564

Website²: [Washington State Department of Ecology](#)

ADA Accessibility

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact the Ecology ADA Coordinator by phone at 360-407-6831 or email at ecyadacoordinator@ecy.wa.gov. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit Ecology's website³ for more information.

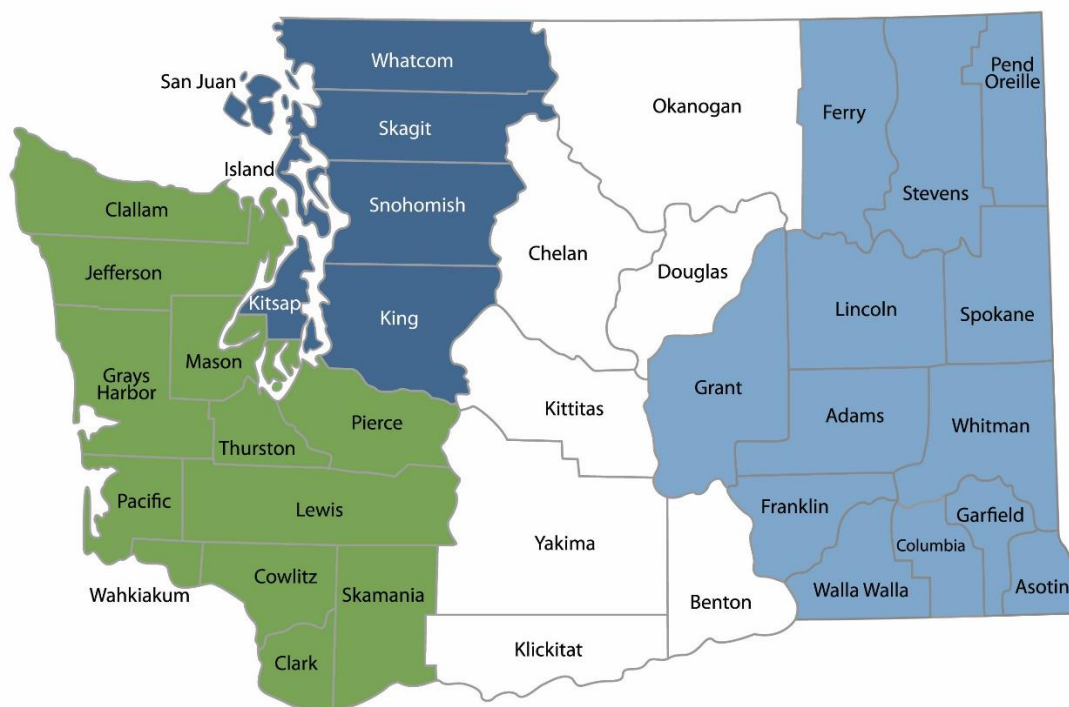
¹ <https://apps.ecology.wa.gov/cleanupsearch/site/6066>

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

Table of Contents

Introduction.....	5
Summary of Site Conditions	6
Site history	6
Remedial actions.....	6
Cleanup levels and points of compliance.....	7
Environmental Covenant	7
Periodic Review	8
Effectiveness of completed cleanup actions.....	8
New scientific information for individual hazardous substances or mixtures present at the Site	9
New applicable state and federal laws for hazardous substances present at the Site.....	9
Current and projected site and resource uses.....	9
Availability and practicability of more permanent remedies	9
Availability of improved analytical techniques to evaluate compliance with cleanup levels	9
Conclusions.....	9
Next review	10
References.....	11
Appendix A. Vicinity Map.....	12
Appendix B. Site Plan	13
Appendix C. Photo Log	14
Photo 1: Street view of the site – from the west.....	14
Photo 2: Retaining wall near sample locations W-1, W-3, and W-4 – from the south	14
Photo 3: Along G Street towards sample location EX-S1 – from the west	15
Photo 4: Site view – from G Street	15

Introduction

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to assure human health and the environment are being protected at the former Unocal SS 2938 site (Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). This is the first periodic review conducted for this Site. This periodic review evaluates site information from May 2016 through September 2022.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). Following cleanup, residual concentrations of carcinogenic polycyclic aromatic hydrocarbons (cPAHs) remained in soil exceeding MTCA Method A cleanup levels. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(3). Due to the presence of residual contamination, Ecology determined the Site would be eligible for a no further action (NFA) determination if institutional controls were implemented in the form of an environmental covenant (Covenant). WAC 173-340-420(2) requires Ecology to conduct a periodic review of a site every five years under the following conditions:

- 1) Whenever Ecology conducts a cleanup action;
- 2) Whenever Ecology approves a cleanup action under an order, agreed order, or consent decree;
- 3) Or, as resources permit, whenever Ecology issues a no further action opinion;
- 4) And, one of the following conditions exists:
 - a) Institutional controls or financial assurance are required as part of the cleanup.
 - b) Where the cleanup level is based on a practical quantitation limit.
 - c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup, or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

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

- a) The effectiveness of ongoing or completed cleanup actions.
- 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) Availability and practicability of more permanent remedies.

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

Ecology shall publish a notice of all periodic reviews in the *Site Register* and provide an opportunity for public comment.

Summary of Site Conditions

Site history

The Site is a former Unocal service station constructed in 1947 with two service bays, a canopy, one pump island, and three 1,000-gallon and one 4,000-gallon underground storage tanks (USTs). The service station was demolished and tanks were removed in 1968, and a new station was built. Two steel 10,000-gallon gasoline USTs, one steel heating oil tank, and one steel waste oil tank were installed when the new station was built. The heating oil tank was replaced prior to 1980, due to leakage. In 1990, the service station was demolished, and USTs and associated pump islands were removed. The Site is currently vacant and used for vehicle storage.

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

Remedial actions

In 1989, four soil borings were completed and converted to monitoring wells. Petroleum hydrocarbons were detected in soil and groundwater. Petroleum hydrocarbons were detected at or above drinking water standards in groundwater. In 1990, the service station was demolished and the two 10,000 gallon USTs, heating oil tank, waste oil tank and the pump islands were removed. Contaminated soil was removed from the tank excavations and transported off-site for disposal. Three of the monitoring wells were decommissioned during UST removal due to their proximity to the UST excavations.

In 1994, nine additional monitoring wells were installed. Groundwater sample results indicated concentrations of benzene, gasoline, and diesel exceeded MTCA cleanup levels. Separate-phase hydrocarbons (SPH) were detected at monitoring well MW-7 and a passive free product skimmer was installed to recover SPH in 1994 and 1995. In addition, 15 multi-phase extraction events were conducted between 2004 and 2006 at monitoring wells MW-2, MW-7, and MW-10.

In 2003, 17 test pits were installed at the Site to determine the extent of contamination; all soil sample results were below cleanup levels, except for two locations.

In 2012, a portion of the site retaining wall was demolished and replaced. Approximately 168 cubic yards of contaminated soil were removed.

Ten additional monitoring wells were installed at the Site, and groundwater monitoring was conducted through 2013. Sampling was stopped when results from the final four consecutive quarters of groundwater samples were below cleanup levels.

A Site closure soil sampling and monitoring well decommissioning event completed in 2013 confirmed impacted soil remains adjacent to the retaining wall along the east side of the property and at a sample location along G Street.

Cleanup levels and points of compliance

WAC 173-340-704 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.

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.

For soil, the point of compliance is the area where the soil cleanup levels shall 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.

Environmental Covenant

Ecology determined the Site would be eligible for an NFA determination if institutional controls were used to document the remaining soil contamination and protect the remedial actions. In 2016, institutional controls in the form of a Covenant were recorded for the Site. Ecology sent an NFA letter to the property owner and changed the Site status to reflect an NFA determination.

The [Covenant](#)⁴ imposes the following limitations:

- 1 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.
- 2 Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains as part of the remedial action or that may create a new exposure pathway is prohibited.
- 3 The owner must give thirty days advance written notice to Ecology of the owner's intent to convey any interest in the Property.
- 4 The owner must restrict leases to uses and activities consistent with the Covenant.
- 5 The owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of the Covenant.
- 6 Maintaining a cap consisting of a concrete retaining wall near soil samples W-1, W-3, and W-4 and a cap consisting of soil between approximately five to eight feet below ground surface above soil sample EX-S1.

⁴ <https://apps.ecology.wa.gov/cleanupsearch/document/83111>

- 7 The property shall be only be used for commercial land uses as defined in MTCA Chapter 70.105D RCW.
- 8 The owner or successor owner shall grant Ecology the right to enter the Site at reasonable times.
- 9 The owner or successor owner reserves the right to remove this Covenant with Ecology's approval.

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on September 29, 2022, there were no indications that the integrity of the remedial action has been compromised. The Site is partially gravel and concrete paved and currently used as a fence-enclosed vehicle storage area. The surrounding area is a mix of commercial and industrial properties. A photo log is in Appendix C.

Direct contact

Cleanup actions were intended to eliminate human exposure to contaminated soils at the Site. Exposure pathways to contaminated soils (ingestion, direct contact) were reduced by remedial excavation and protective Site surfaces including asphalt, building foundations, roadways, and landscaped areas. Surface covers and property use continue to prevent activities that may lead to exposure to residual contaminated soils at the Site.

Protection of groundwater

There is no evidence that additional wells have been installed for the purpose of groundwater extraction at the Site. The Site owner is aware of restrictions at the Site, and there are no potential routes of exposure to contaminated soil found at the Site.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2016. The Covenant remains active and discoverable through the Spokane County Auditor's Office. There is 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 without Ecology's approval and prohibits any use of the property that is inconsistent with the Covenant. This Covenant serves to assure the long-term integrity of the surface cover and the remedial action.

Summary

Soils with cPAHs at concentrations exceeding the MTCA Method A cleanup level are still present at the Site. However, the concrete or asphalt surfaces prevent human exposure by ingestion and direct contact with this soil contamination. The Covenant for the property will ensure the integrity of the caps will be protected through property use restrictions.

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

Cleanup levels for contaminants found at the Site have not changed since remedial actions were conducted. Contamination remains at the Site above MTCA Method A cleanup levels, and the cleanup action is still protective of human health and the environment.

Current and projected site and resource uses

The Site is vacant and used for vehicle storage. There have been no changes in current or projected future Site or resource uses.

Availability and practicability of more permanent remedies

The remedy implemented included containing hazardous substances under a cap, 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 remedial action were capable of detection below MTCA Method A cleanup levels for contaminants of concern at the Site. 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 surface cover is ensured.
- The Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, Ecology has determined the requirements of the Covenant are being followed. No additional remedial actions are required by the property owner. The

property owner is responsible for continuing to inspect the Site to assure the integrity of the cap is maintained.

Next review

The next review for the Site will be scheduled 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 complete.

References

Arcadis. *Closure Sampling Plan*. June 10, 2013.

Arcadis. *Third Quarter 2013 Groundwater Monitoring Report*. November 13, 2013.

Arcadis. "No Further Action Request." July 7, 2014.

GeoEngineers. *Report of Geotechnical Services Subsurface Contamination Study*. June 12, 1989.

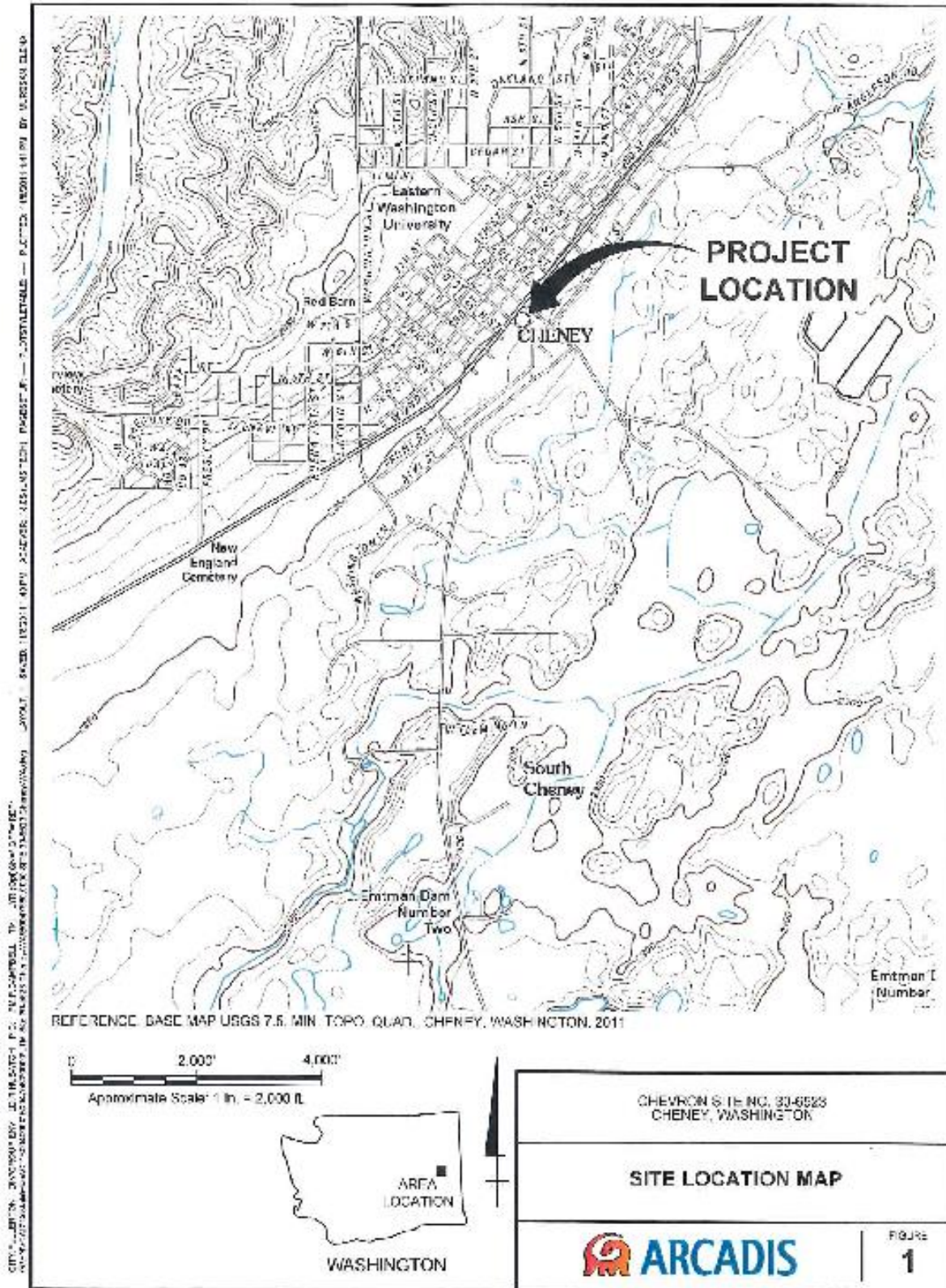
GeoEngineers. *Report of Geoenvironmental Services Supplemental Subsurface Contamination Study*. February 10, 1995.

Ecology. *Environmental Covenant*. May 2, 2016.

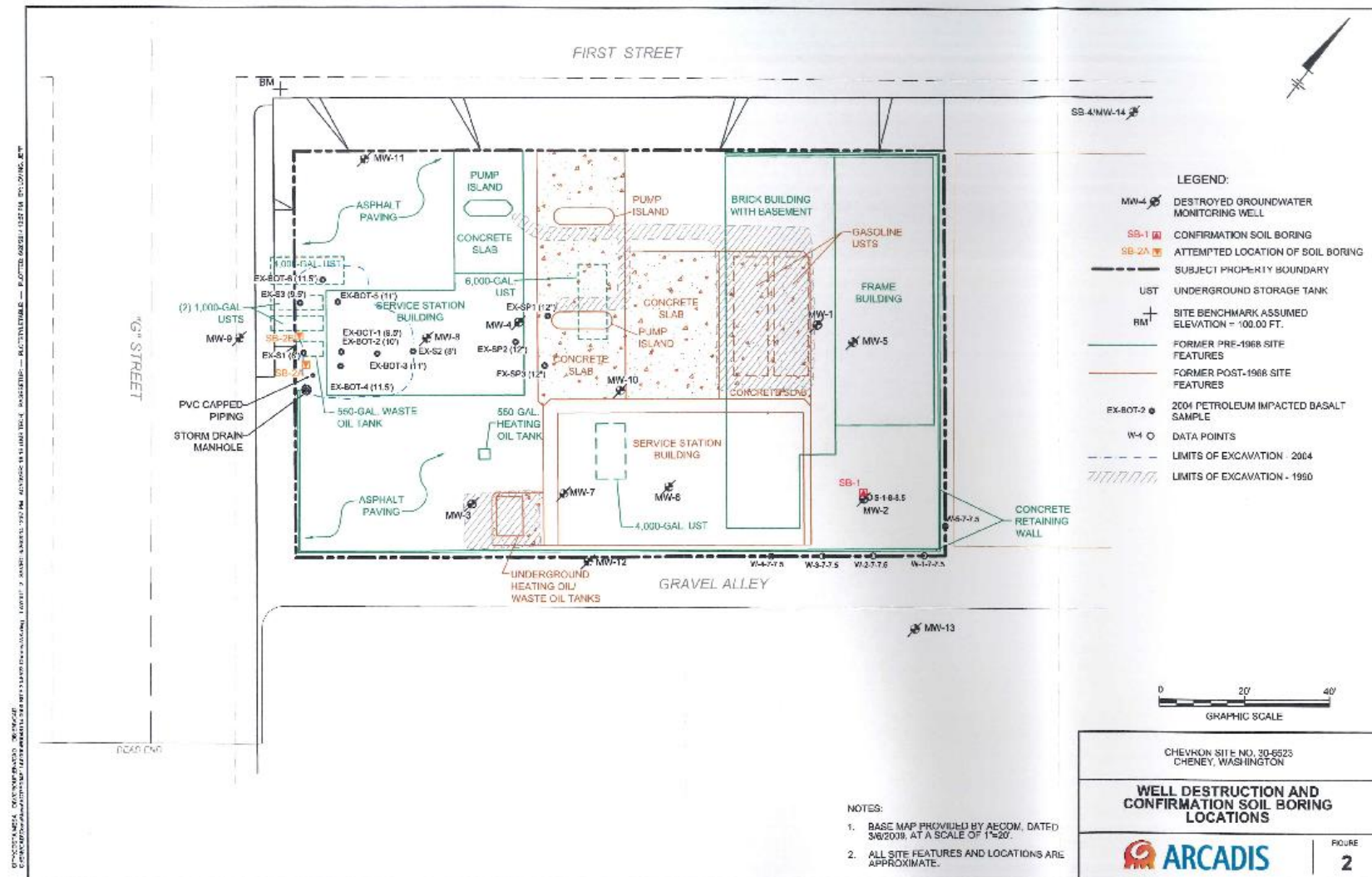
Ecology. "No Further Action Letter." May 5, 2016.

Ecology. Site Visit. September 29, 2022.

Appendix A. Vicinity Map



Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Site view from 1st Street – from the west



Photo 2: Retaining wall near sample locations W-1, W-3, and W-4 – from the south



Photo 3: Along G Street towards sample location EX-S1 – from the west



Photo 4: Site view – from G Street

