



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

March 26, 2013

Mr. Joshua Clarke
Public Works, City of Tacoma
747 Market Street, Room 744
Tacoma, WA 98402

Re: No Further Action at the following Site:

- **Site Name:** Pacific Plaza Garage
- **Site Address:** 1250 Pacific Avenue, Tacoma, WA
- **Facility/Site No.:** 9198
- **Cleanup Site ID No.:** 1367
- **VCP Project No.:** SW1230

Dear Mr. Clarke:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Pacific Plaza Garage facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:



- Petroleum hydrocarbons and related constituents into the Soil.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. GeoEngineers, Inc., Technical Memorandum (Letter Report to Tacoma Public Works, Facility Management), December 18, 2009.
2. GeoEngineers, Inc., Underground Storage Tank Removal Report, December 31, 2008.
3. Tacoma/Pierce County Health Department, Underground Storage Tank (UST) Removal: Site Closure Determination Letter, August 20, 2011.
4. Southwest Regional Office of Ecology, Initial Investigation Report (ERTS # 605007).
5. Southwest Regional of Office of Ecology, Opinion Letter, October 8, 2012.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that **No further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. **Characterization of the Site.**

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

The property is currently owned by the City of Tacoma and managed by the City's Public Works Services. The property is occupied by a parking structure called Pacific Plaza Garage built in the 1970s. The original parking garage was at least five stories, and went through remodeling activities in April 2008 to add additional office space on top of the parking structure.

During the remodeling activities, a single wall underground storage tank (UST) was encountered at the east side of the property along Pacific Avenue. Part of the tank was buried within the City of Tacoma sidewalk right of way (ROW). The UST was found to contain approximately 700 gallons of oil and 100 gallons of sludge at the time of discovery. The oil product in the UST was analyzed and found to resemble degraded Bunker-C oil. The UST was then removed and disposed of on April 11, 2008. The UST was noted to have multiple discernable holes that ranged in size from approximately 1/8 inch to 1.5 inches throughout the UST. Blue-gray wet soils were observed on the walls and bottom of the UST and a petroleum odor was noted.

Following the removal of the UST, petroleum impacted soil was subsequently excavated between April 11 and 15, 2008 before any Site characterization was conducted. Nevertheless, confirmation soil samples were collected during the excavation from four walls and the bottom of the excavation pit. A confirmation soil sample was also collected from beneath the former product lines (which were also removed) that connected to the UST.

The soil samples confirmed that the soil was cleaned up at most of the four sides of the excavation pit where the total petroleum hydrocarbon (TPH) concentrations were below the MTCA Method A cleanup levels. However, it was noted that "additional potentially contaminated soil was not removed along the eastern portion of the excavation adjacent to Pacific Avenue because of caving of the sidewalls adjacent to the footings and the underground Comcast utility line." (GeoEngineers, December 18, 2009).

Confirmation soil samples from the bottom of the excavation pit confirmed that part of the bottom is cleaned up, including the southwest corner where the excavation reached 10.5 feet below ground surface (bgs), and the middle portion of the east side of the excavation pit where excavation reached 11 feet bgs. However, due to limited access constraints, it was noted that along the east side of the bottom towards its north and south ends, "potential petroleum-contaminated soil may exist along the eastern portion of the excavation at a depth of 10.5 to 11 feet bgs" (GeoEngineers, December 18, 2009). Additionally, a bottom soil sample from the northwest corner of the excavation pit detected heavy oil TPH at 2,010 microgram per kilogram (mg/kg), and TPH-Dx at 1,340 mg/kg. The combined value of 3,350 mg/kg for diesel/oil in this sample exceeded the MTCA Method A cleanup level of 2,000 mg/kg.

The above information suggested that the confirmation sampling was adequate to define the boundary and level of contamination the soil under the Site because the contamination was caused by the leak of petroleum product through the holes on the UST, and the petroleum product stored in the UST was aged Bunker-C oil, which has limited mobility in soil. The 1,750-gallon UST was not in use at least since the 1970s, yet it still contained 700 gallons of Bunker-C oil and 100 gallons of sludge at the time of discovery in 2008, even though multiple discernable holes that ranged in size from approximately 1/8 inch to 1.5 inches were observed throughout the UST. The remaining soil contaminated by TPH-Dx and heavy oil TPH only exist in limited areas adjacent to the former UST. Ecology has determined that the Site characterization is sufficient.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

MTCA Method A cleanup levels for soil were used for the Site. Standard points of compliance were used for the Site. The point of compliance for protection of groundwater was established in the soils throughout the Site. For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance was established in the soils throughout the Site from the ground surface to 15 feet bgs.

3. Selection of cleanup action.

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

Cleanup actions conducted at the Site to date have included source removal and institutional controls. The source removal activities included product (Bunker-C oil) and sludge removal from the UST and disposal, UST removal and disposal, and contaminated soil excavation and off-Site disposal. The excavation pit at the Site was backfilled with controlled density fill (CDF), and the isolated pockets of residual contamination were covered beneath the concrete surface and on-Site parking structure, and the contamination appears to be stable and not migrating off the property. An Environmental Covenant (EC) was signed and filed with Pierce County to control and minimize any activities at the Site that may impact human health and the environment.

4. Cleanup.

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site. This determination is dependent on the continued performance and effectiveness of the post cleanup controls specified below:

Cleanup actions conducted to date have included source removal and disposal activities as follows:

- 700 gallons of petroleum product and 100 gallons of sludge contained in the UST were removed and disposed of; thereafter, the emptied UST was removed. Three product lines connected to the UST were also removed. The UST was properly transported to Phoenix Environmental in Tacoma for disposal.
- Most of the contaminated soil found adjacent to the UST was excavated. A total of 472 tons of contaminated soil was removed and properly disposed of at Landfilling and Recycling Inc. (LRI) landfill located in Graham, Washington.

Confirmation samples collected from the four walls and from the bottom of the excavation pit indicated that contaminated soil was left at the bottom of the northwest corner of the excavation pit, and potentially left on the eastern wall and bottom of the excavation pit (see Section 1 of this letter for details). Contaminated soil at these localized pockets was not removed due to limited access for excavation equipment.

Following the collection of confirmation soil samples, the excavation pit was backfilled with CDF.

As a result, Ecology has determined that it will be cost-prohibitive to do any further remedial action at the Site, and that the most feasible alternative is to place restrictions on usage of the property via an EC with no groundwater monitoring requirement based on the following reasons:

- The UST with source petroleum product, and product lines were all removed. Most of the contaminated soil was also excavated, and only localized pockets of petroleum-contaminated soil were left at the Site.
- The TPH was aged Bunker-C oil, which has limited mobility in soil and the remaining contamination in soil will not be readily mobile and lead to further soil and groundwater contamination. The 1,750-gallon UST was not in use at least since the 1970s, yet it still contained 700 gallons of Bunker-C oil and 100 gallons of sludge at the time of discovery in 2008, even though multiple discernable holes that ranged in size from approximately 1/8 inch to 1.5 inches were observed throughout the UST.
- The excavation pit was backfilled with CDF, and covered by paved parking surface, located within a parking structure, which will serve as an engineer control and minimize the impact to human health through direct contact pathway.
- The aged Bunker-C oil has limited potential to produce vapors. VOCs were detected in soil at concentrations lower than the MTCA Method A cleanup levels (see Section 1 of this letter for details) and therefore, VOCs are not a concern.
- Groundwater contamination is not a concern for this Site considering the above factors and the fact that the depth of groundwater was 50 feet bgs at the Site while the contamination was mostly found at about 10 feet bgs in soil; and the dense glacial deposits between soil contamination and groundwater table was more than 30 feet thick at the Site, which may effectively contain the remaining soil contamination from leaching into groundwater.

In February 2013, an EC (attached as **Enclosure B**) was filed with Pierce County for the Site documenting the use of institutional controls for the soil containing TPH below the concrete floor under the Pacific Plaza Garage parking structure.

Post-Cleanup Controls and Monitoring

Post-cleanup controls and monitoring are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

1. Compliance with institutional controls.

Institutional controls prohibit or limit activities that may interfere with the integrity of engineered controls or result in exposure to hazardous substances. The following institutional controls are necessary at the Site:

- Restrictions on activities that may alter, modify, or remove the existing Pacific Garage parking structure[s] 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.

To implement those controls, an EC has been recorded on the following parcel of real property in Pierce County:

- 2011040079

Ecology approved the recorded EC. A copy of the EC is included in **Enclosure B**.

2. Operation and maintenance of engineered controls.

Engineered controls prevent or limit movement of, or exposure to, hazardous substances. The following engineered controls are necessary at the Site:

- Pacific Plaza Garage (the floor and the structure).

3. Performance of confirmational monitoring.

Confirmational monitoring for groundwater is not necessary at the Site to confirm the long-term effectiveness of the cleanup.

Periodic Review of Post-Cleanup Conditions

Ecology will conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If Ecology determines, based on a periodic review, that further remedial action is necessary at the Site, then Ecology will withdraw this opinion.

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from our lists of hazardous waste sites, including:

- Hazardous Sites List.
- Confirmed and Suspected Contaminated Sites List.

That process includes public notice and opportunity to comment. Based on the comments received, Ecology will either remove the Site from the applicable lists or withdraw this opinion.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Mr. Joshua Clarke
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Termination of Agreement

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW1230).

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (360) 407-6265 or via email at hqiu461@ecy.wa.gov.

Sincerely,



Hans Qiu, L.G.
Site Manager
SWRO Toxics Cleanup Program

HQ/ksc:Site NFA final Pacific Plaza 2013

Enclosures: A – Description and Diagrams of the Site
 B – Environmental Covenant

By certified mail: (7012 1010 0003 0195 9265)

cc: Tricia De Ome, GeoEngineers, Inc.
 Rob Olsen, Tacoma/Pierce County Health Department
 Dolores Mitchell – Ecology
 Scott Rose – Ecology

Enclosure A

Description and Diagrams of the Site

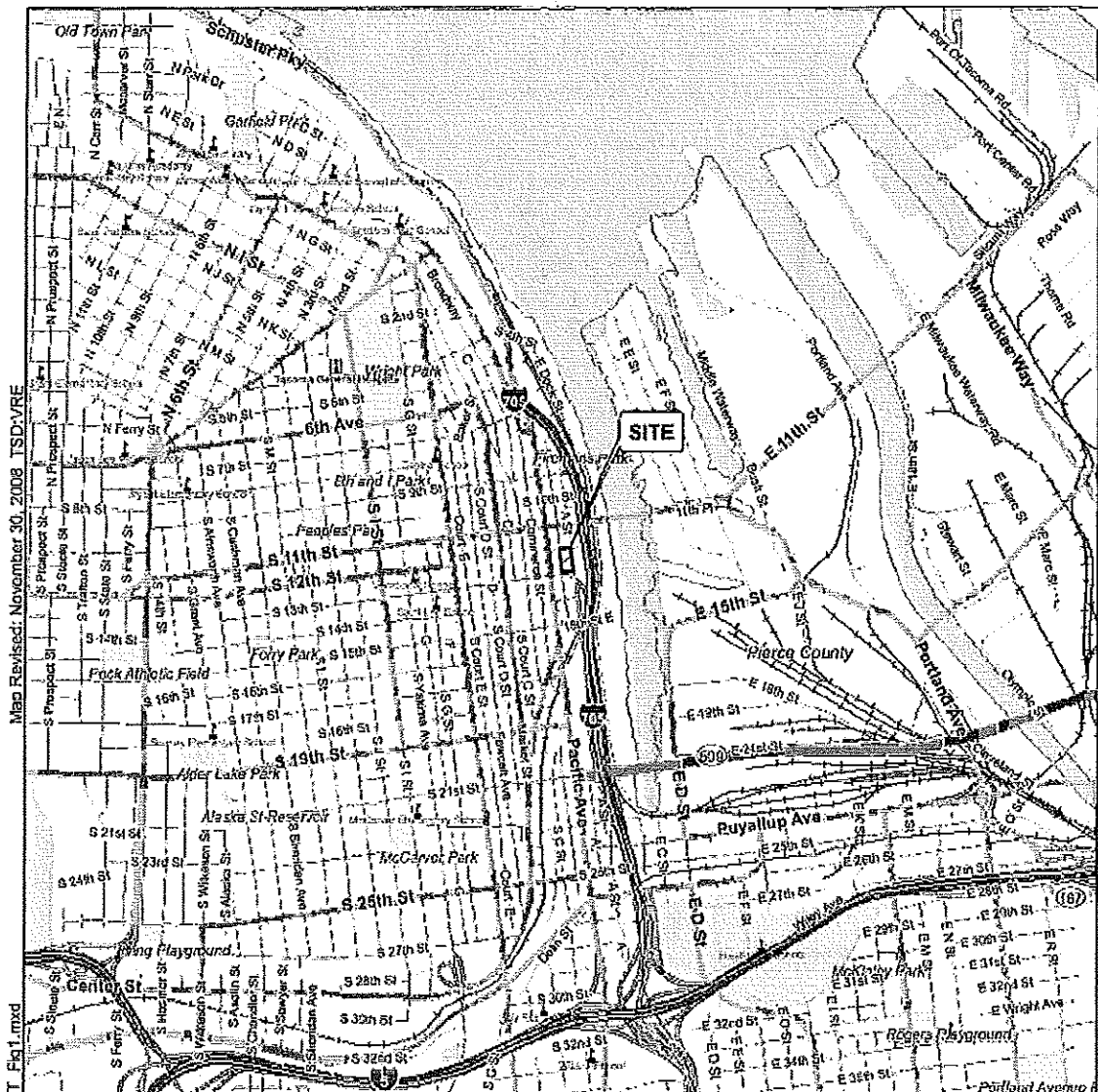
Site Description

The Site is located within downtown Tacoma. Pacific Avenue, South 13th and Commerce Street bound the Site to the east, south, and west, respectively. The Site is bound to the north by a stairway and existing building (Fig. 1). The entire Site is occupied by the existing parking structure owned by the City of Tacoma and managed by the City's Public Works Services.

The Site is located among urban commercial and businesses properties. A waterway leading to Commencement Bay is located about 1,000 feet east of the Site. The ground surface along 13th street slopes down to the east and towards the waterway.

An underground storage tank (UST) was removed, and 700 gallons of petroleum product and 100 gallons of sludge were also removed from the UST prior to the removal of the UST. Contaminated soil was excavated and confirmation soil samples were collected from the walls and bottom of the excavation pit (Fig. 2).

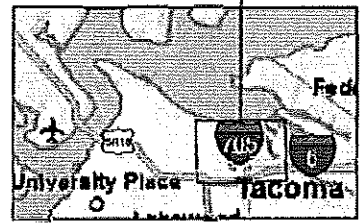
Groundwater was not encountered during the UST removal and soil excavation activities. A minor amount of perched water was observed within the excavation pit at the depth of approximately 8 ft bgs and later dissipated during excavation. The water may be related to a small isolated area of perched groundwater because aquifer in this area is about 50 feet deep. The soil below the excavation zone is dense glacial deposits typically consisting of very dense silty sand with gravel.



Map Revised: November 30, 2008 TSD:VRE

Path: P:\1611657400\GIS\1657400\01 UST_Fe1.mxd

Office: TAC



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps, Street Maps 2008, USGS Topo Seamless - http://server.arcgisonline.com/ArcGIS/services/TransverseMercator_Zone_10_North_North_American_Geoid_1983
North arrow oriented to grid north


Vicinity Map	
Pacific Plaza Garage - UST Removal Tacoma, Washington	
GEOENGINEERS 	Figure 1

Fig. 1 Location of the Pacific Plaza Site in Tacoma, WA (GeoEngineers, December 18, 2009)

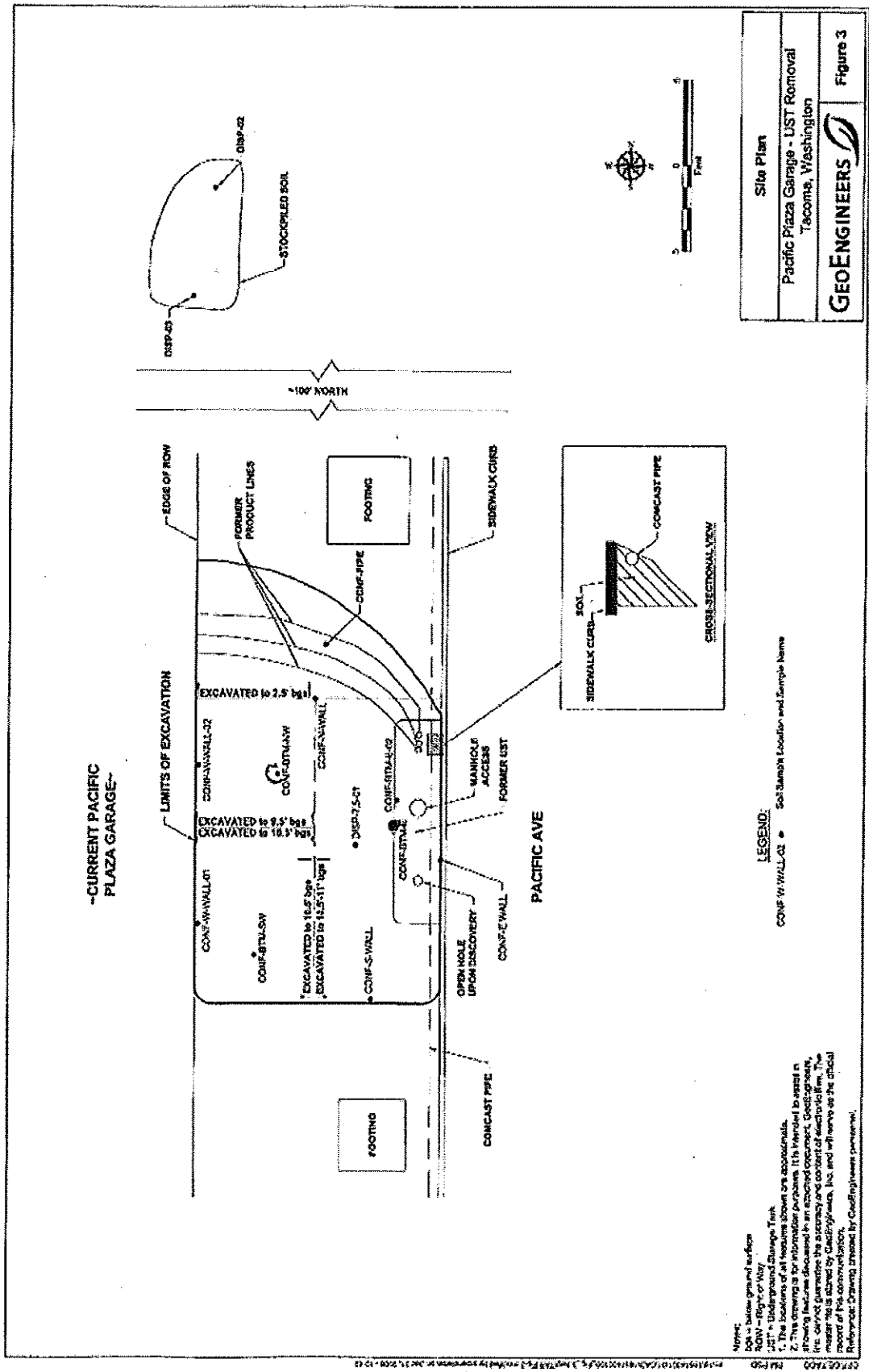
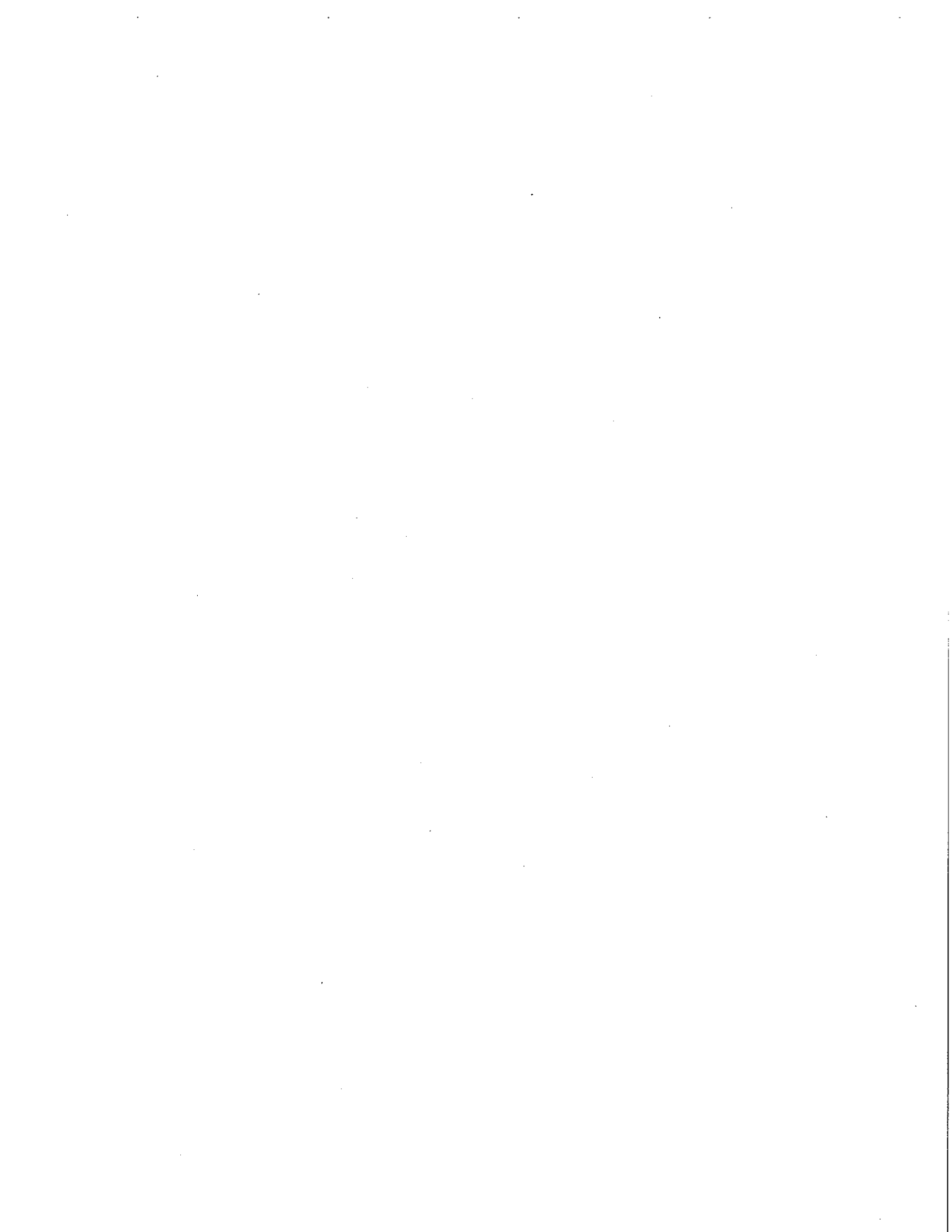


Fig 2. UST Removal, Soil Excavation, and Confirmation Sampling (soil & groundwater) Locations at the Pacific Plaza Site (GeoEngineers, December 18, 2009)

Enclosure B
Environmental Covenant



CONFORMED COPY

201302210732 CSHEARE 7 PGS
02/21/2013 03:26:33 PM \$78.00
AUDITOR, Pierce County, WASHINGTON

When Recorded, Return To: City of Tacoma Real Property Services 747 Market Street, Room 737 Tacoma, WA 98402
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Duplicate
ORIGINAL

DOCUMENT TITLE Environmental Covenant No. A356 - Pacific Plaza
Grantor City of Tacoma
Grantee State of Washington, Department of Ecology
Legal Description - SW1/4 of NW1/4 of Section 4, Township 20 North, Range 3 East, W.M.
Reference Number
Assessor's Parcel Number 201104-007-9

Model Restrictive (Environmental) Covenant

After Recording Return to:
Attn: Hans Qiu, Site Manager
Department of Ecology, Southwest Region
PO Box 47775
Olympia, WA 98504-7775

Environmental Covenant

Grantor: City of Tacoma
Grantee: State of Washington, Department of Ecology
Legal: Pacific Plaza Garage Facility (Site), Exhibit A – Legal Description
Tax Parcel Nos.: 2011040079

Grantor, City of Tacoma, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant (hereafter "Covenant") made this 4th day of February, 2013 in favor of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, Chapter 64.70 RCW .

This Declaration of Covenant is made and executed pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 and Chapter 64.70 RCW by City of Tacoma, its successors and assigns, and Ecology, its successors and assigns.

A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following document[s]:

- 1) GeoEngineers, Inc., Technical Memorandum (Letter Report to Tacoma Public Works, Facility Management), December 18, 2009.
- 2) GeoEngineers, Inc., Underground Storage Tank Removal Report, December 31, 2008.

- 3) Tacoma/Pierce County Health Department, Underground Storage Tank (UST) Removal: Site Closure Determination Letter, August 20, 2011.
- 4) Southwest Regional Office of Ecology, Initial Investigation Report (ERTS # 605007).
- 5) Southwest Regional Office of Ecology, Opinion Letter, October 8, 2012.

These documents are on file at Ecology's Southwest Regional Office.

This Covenant is required because the Remedial Action resulted in residual concentrations of diesel- and oil-range petroleum hydrocarbons (TPH-D and TPH-O) whose combined values exceed the Model Toxics Control Act Method A Cleanup Level(s) for soil established under WAC 173-340-704.

The undersigned, City of Tacoma, is the fee owner of real property (hereafter "Property") in the County of Pierce, State of Washington, that is subject to this Covenant. The Property is legally described in Exhibit A of this covenant and made a part hereof by reference.

City of Tacoma makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1. A portion of the Property contains TPH-D and TPH-O contaminated soil located approximately 12 feet below ground surface at the main entry of the structure located on the Pacific Avenue level (Exhibit B). The Owner shall not alter, modify, or remove the existing structure[s] 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.

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 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.

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. 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 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 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, to determine compliance with this Covenant, 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 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.

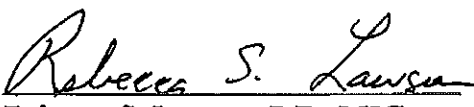
City of Tacoma



Jeffrey A. Jenkins
Facilities Division Manager

Dated: 2/8/2013

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY



Rebecca S. Lawson, P.E., LHG
Section Manager
Toxics Cleanup Program
Southwest Regional Office

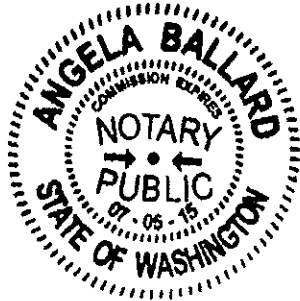
Dated: 2/4/2013

[REPRESENTATIVE ACKNOWLEDGEMENT]

STATE OF WASHINGTON

COUNTY OF PIERCE

On this 28th day of January, 2013 I certify that Jeffrey A. Jenkins personally appeared before me, acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument, and acknowledged it as the Facilities Division Manager of City of Tacoma to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.



Handwritten signature of Angela Ballard in cursive script.

Notary Public in and for the State of
Washington, residing at Tacoma.
My appointment expires 7/5/2015.

Exhibit A
Legal Description

A PORTION OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 4, TOWNSHIP 20 NORTH, RANGE 03 EAST, W.M. MORE PARTICULARLY DESCRIBED AS FOLLOWS: UNITS 1 THROUGH 4 OF PACIFIC PLAZA, A CONDOMINIUM, CREATED PURSUANT TO THAT CERTAIN DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS RECORDED UNDER AUDITOR'S FILE NUMBER 201104010529 AND THAT CERTAIN SURVEY MAP AND PLANS RECORDED UNDER AUDITOR'S FILE NUMBER 201104015002, RECORDS OF PIERCE COUNTY, STATE OF WASHINGTON.

Exhibit B
Site Figure



