



Second Periodic Review

Industrial Warehouse
2450 6th Avenue South
Seattle, WA 98134

Facility Site ID#: 1252928
Cleanup Site ID#: 3929

Prepared by:
Washington State Department of Ecology
Northwest Region Office
Toxics Cleanup Program

July 2018

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1.0 INTRODUCTION

This document is a periodic review by the Washington State Department of Ecology (Ecology) of post-cleanup Site conditions and monitoring data to ensure that human health and the environment are being protected at the Industrial Warehouse (Site). Cleanup at this Site 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 the Site. The first review was completed in 2012. This review will evaluate the period from 2012 through 2018.

Cleanup activities at this Site were completed under Ecology's Voluntary Cleanup Program (VCP). VCP identification number for the Site was NW 1016. Following cleanup actions, diesel-range petroleum hydrocarbons (DRPH) and benzene remain in soil and groundwater at the Site at concentrations exceeding MTCA Method A cleanup levels. The MTCA cleanup levels for soil are established under WAC 173-340-740. It was determined that institutional controls in the form of a restrictive covenant were required for the Site to be eligible for a no further action (NFA) determination due to the continued presence of contaminated soil. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a Site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree
- (c) Or, as resources permit, whenever the department issues a no further action opinion,
- (d) And one of the following conditions exists:
 - 1. Institutional controls or financial assurance are required as part of the cleanup;
 - 2. Where the cleanup level is based on a practical quantitation limit; or
 - 3. 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 the department shall consider include [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 use;

- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

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

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site Description and History

The Site is associated with a property located at 2450 6th Avenue South in Seattle, Washington. The property is bordered on the west by 6th Avenue South and on the east by railroad tracks, on the south by South Lander Street and on the north by a warehouse and truck maintenance facility.

The property is located in the lower Duwamish Industrial area, south of downtown Seattle. The area is completely developed, and dominated by commercial and industrial businesses. The Duwamish River is approximately 1 mile to the west. Prior to 1900, the property and adjacent areas were part of the Elliott Bay tidelands. The tidelands were filled in the early 1900's. The current buildings on the property were constructed between the years 1951 and 1961, and have been used as warehouses by different businesses for general storage purposes and retail stores.

Soils beneath the property consist of sandy silt to silty sand fill. The fill material is likely underlain by tide flat estuarine sediments. A shallow water table aquifer occurs within the fill, and is likely separated from deeper aquifers by the low permeability estuarine sediment. Depth to water varies, but is typically about 7 to 12 feet below ground surface (bgs).

A vicinity map is available as Appendix 6.1.

2.2 Site Investigations and Remedial Activities

Clayton Group Services (Clayton) performed a Phase I Environmental Site Assessment (ESA) at the property in 2001 and identified three heating oil tanks located beneath the western portion of the warehouse. The USTs were reportedly installed in the early to mid-1950s.

Following the Phase I study, Clayton conducted subsurface investigations between November 2002 and January 2003. Those subsurface investigations confirmed releases in the vicinity of two of the USTs (UST-1 and UST-3). Free product was detected in boring B-5 drilled north of UST-1. A free product recovery well was installed adjacent to B-5 and UST-1 in February 2003, and a free product recovery program was operated through November 2003. Approximately 300 gallons of free product was removed from the recovery well.

The three USTs were decommissioned in-place in March 2003, and removed in March and April of 2004. It appears that petroleum contaminated soil (PCS) was primarily confined to a wet, fine to coarse sand layer located at a depth of approximately 8 to 13 feet bgs in the vicinity of the USTs.

Approximately 250 tons of PCS were excavated from around UST-1 and 2. Approximately 700 gallons of petroleum contaminated groundwater were pumped from the excavation in the vicinity of UST-3 and 2,500 gallons from around USTs-1 and 2. However, the excavation was limited and PCS still remained in the vicinity of the USTs due to concerns of damaging the structural integrity of the warehouse building. Results from soil confirmation sampling are shown in

Appendix 6.2 with diesel concentrations ranging from non-detect to 44,000 mg/kg and benzene concentrations from non-detect to 0.22 mg/kg. The excavation was backfilled with pea gravel and control density fill. A new concrete slab was later poured over the excavation.

Six post-remediation groundwater monitoring wells were installed in March 2004 to evaluate whether groundwater had been impacted by the releases, including potential off-property migration. The locations of the wells are shown in Appendix 6.3. Neither petroleum hydrocarbons nor associated compounds of benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in any of the soil samples collected during drilling of the wells. Based on the requirements of Ecology's 2004 NFA letter, groundwater monitoring was conducted on a semi-annual basis for two years in 2004 and 2005. Neither petroleum hydrocarbons nor associated compounds of BTEX were detected in the groundwater samples collected in the first three rounds of monitoring. However, diesel-range petroleum hydrocarbons were reported in all six samples collected in March 2006 with concentrations ranging from 0.30 to 4.4 mg/L. The 4.4 mg/L concentration exceeded the MTCA Method A cleanup level of 0.5 mg/L. A groundwater sample was collected from well MW-4 on June 9, 2012 to demonstrate that the exceedance of the March 2006 sample could be from a typo by mis-entering the units of the analytical results. Diesel was not detected in this well above its reporting limit of 0.25 mg/L in the sample collected on June 9, 2012. It is likely the units of the results from March 2006 samples were mis-entered as mg/L instead of µg/L.

2.3 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.

Because the highest beneficial use of groundwater from the Site is as a potential future source of drinking water, the standard point of compliance for groundwater is appropriate for this Site. The standard point of compliance is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the Site.

2.4 Institutional Controls

Based on the Site use, surface cover and cleanup levels, it was determined that the Site was eligible for a 'No Further Action' determination if institutional controls in the form of a

restrictive covenant were recorded for the property. A restrictive covenant was recorded for the property in 2004 which imposed the following restrictions:

1. The property shall be used only for traditional industrial uses, as described in RCW 70.105D.020 (23) and defined in and allowed under the City of Seattle's zoning regulations as of the date of this Restrictive Covenant.

No groundwater may be taken for domestic and agricultural use from the property.

A portion of the property contains diesel range petroleum hydrocarbons contaminated soil located at the west half of the warehouse. The owner shall not alter, modify, or remove the existing structures 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.

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 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 the 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) 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.
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.
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.
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.
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.

The Restrictive Covenant is available as Appendix 6.4.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

During the Site visit conducted on April 16, 2018, there were no indications that 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 continues to be occupied by commercial businesses. A photo log is available as Appendix 6.5.

3.1.1 Direct Contact

It is assumed that DRPH remains at the Site at concentrations up to 44,000 ppm based on the confirmation samples collected during soil excavation in 2004. It is likely that these concentrations have attenuated to some degree since that time; however, confirmational sampling would be required to confirm current concentrations. Exposure pathways to contaminated soils (ingestion, direct contact) continue to be eliminated by the presence of protective Site surfaces including building foundations, asphalt and concrete. Remaining contaminated soil is contained beneath permanent, impermeable surfaces.

3.1.2 Protection of Groundwater

Groundwater elevation data collected from 2004-2006 indicate that groundwater may flow to the south in the vicinity of USTs 1 and 2, rather than to the east as presented in Site figures. This means that no wells were been placed directly down-gradient of the source area in the vicinity of USTs 1 & 2. However, considering the distance to the property boundary to the south and from the data collected prior and post excavation, it is not likely that the plume has migrated beyond the property boundary.

It is possible that groundwater at the Site remains contaminated with DRPH and benzene in the vicinity of the USTs. Results from post-remediation groundwater sampling indicate that contamination remains within the property boundaries. The restrictive covenant prevents any use that may expose residual contaminated groundwater.

3.1.3 Institutional Controls

Institutional controls in the form of a restrictive covenant were implemented at the Site in 2004. The covenant remains active and discoverable through the King County Auditor's Office. There is no evidence a new instrument has been recorded which 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.

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

There is no new scientific information for the contaminants related to the Site.

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

There are no new state or federal laws applicable to hazardous substances present at the Site.

3.4 Current and projected Site use

The Site is currently used for commercial purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 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 selected Site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

4.0 CONCLUSIONS

The following conclusions have been made as a result of this periodic review:

- 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 for the Site 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 restrictive covenant for the property is in place and continues to 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, the Department of Ecology has determined that the requirements of the restrictive covenant continue to be met. No additional cleanup actions are required by the property owner at this time. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the remedy is maintained.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

O'Sullivan Omega. Underground Storage Tank Closure Report, Industrial and Transfer and Storage Co. Inc. June 13, 1994.

Clayton Group Services. Phase I Environmental Site Assessment, Industrial Transfer Warehouse and Storage Yard. September 2001.

Clayton Group Services. Subsurface Release Investigation Report- Industrial Properties Inc. February 9, 2003.

Clayton Group Services. Underground Storage Tank (UST) Removal and Site Assessment. Prepared for: Industrial Properties, Inc., Seattle, Washington. 2450 6th Avenue South, Seattle, Washington. May 20, 2004.

Ecology. Restrictive Covenant. August 26, 2004.

Clayton Group Services. Semi-Annual Groundwater Monitoring Report – Industrial Properties. 2450 6th Avenue South, Seattle, Washington. May 22, 2006.

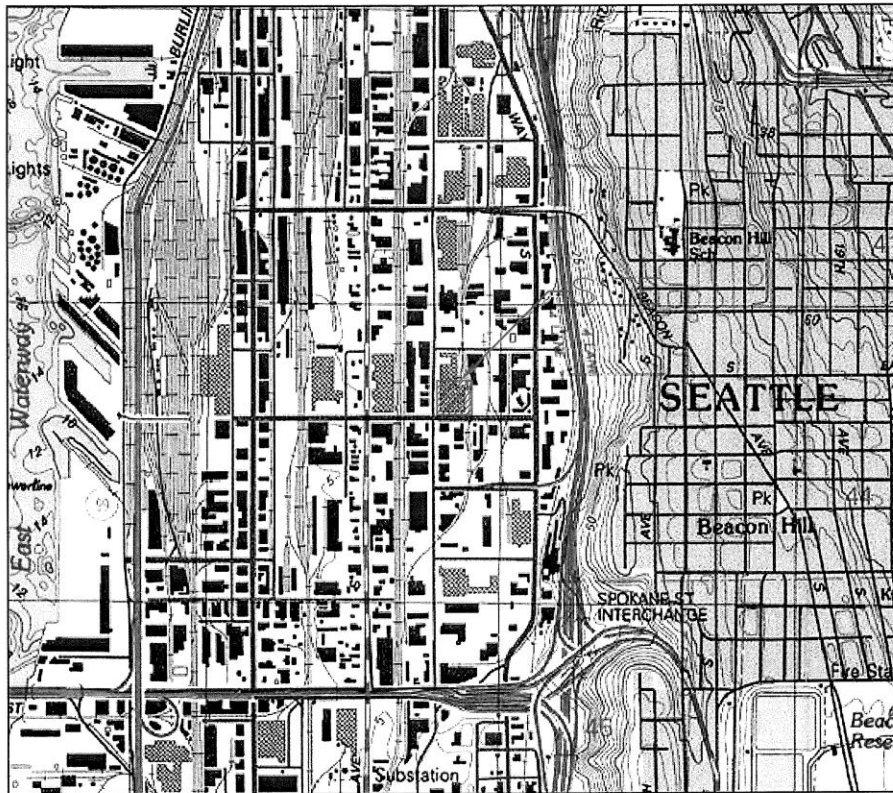
Ecology. No Further Action Opinion Letter. May 31, 2006.

Ecology. Periodic Review. June 2012.

Ecology. Site Visit. April 16, 2018.

6.0 APPENDICES

6.1 Vicinity Map



SITE VICINITY MAP
SCALE: 1"=24,000'



Portion of 7.5-minute Series
Topographic Map
United States Department of the Interior
Geological Survey
Seattle South East, Washington Quadrangle
1983
Scale 1:24,000

QUADRANGLE
LOCATION

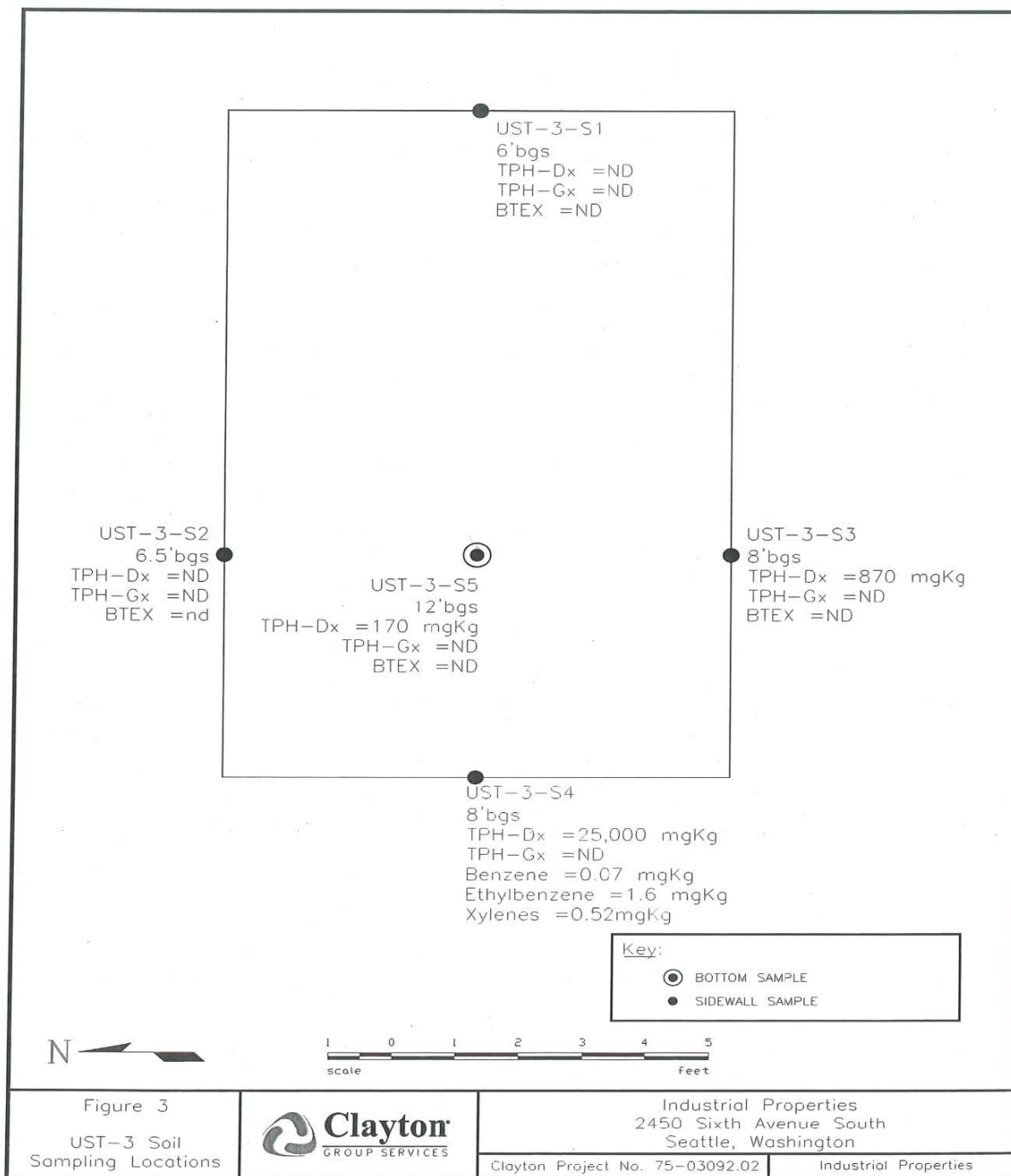


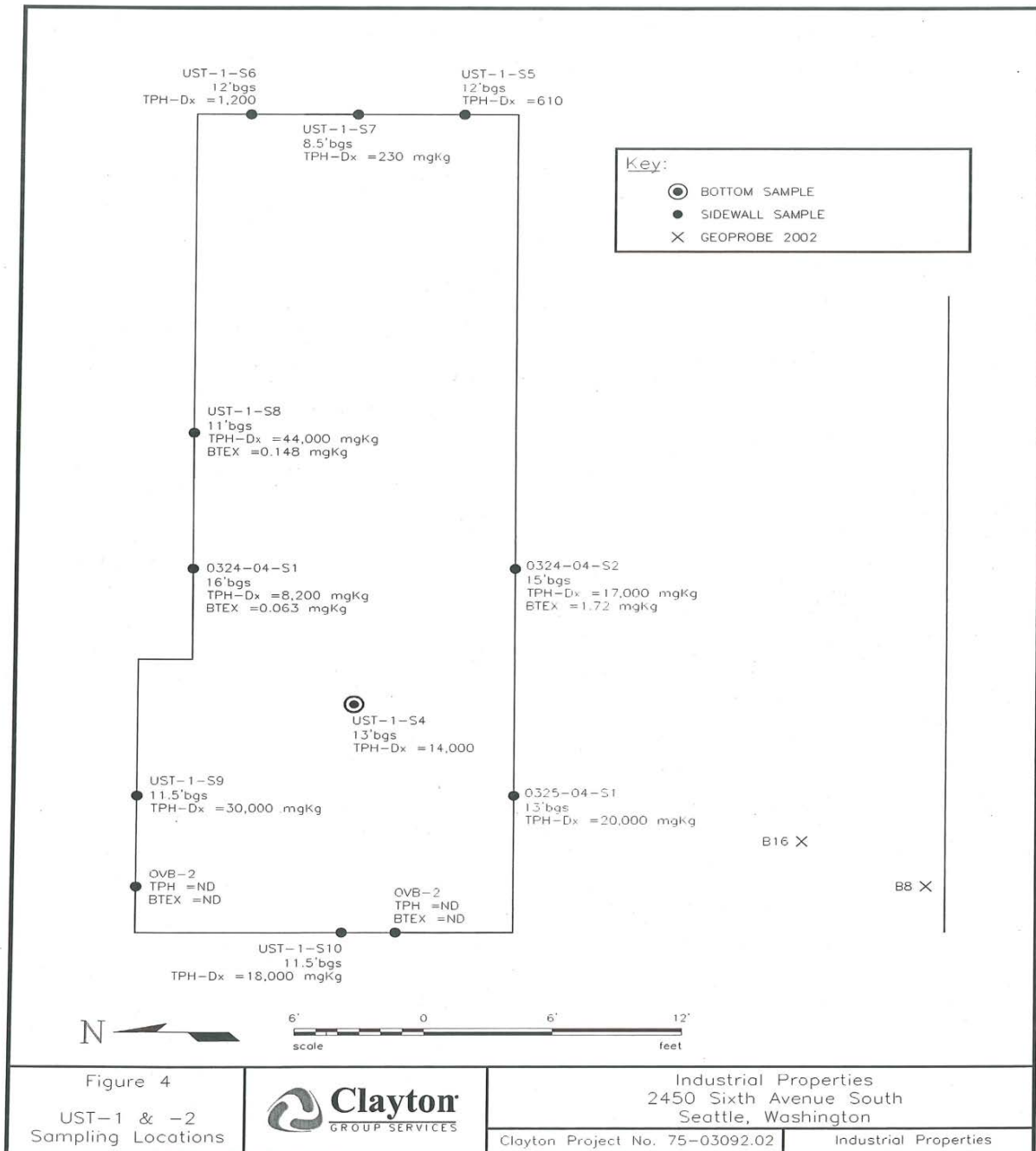
SITE LOCATION

INDUSTRIAL PROPERTIES
2450 SIXTH AVENUE SOUTH
SEATTLE, WASHINGTON

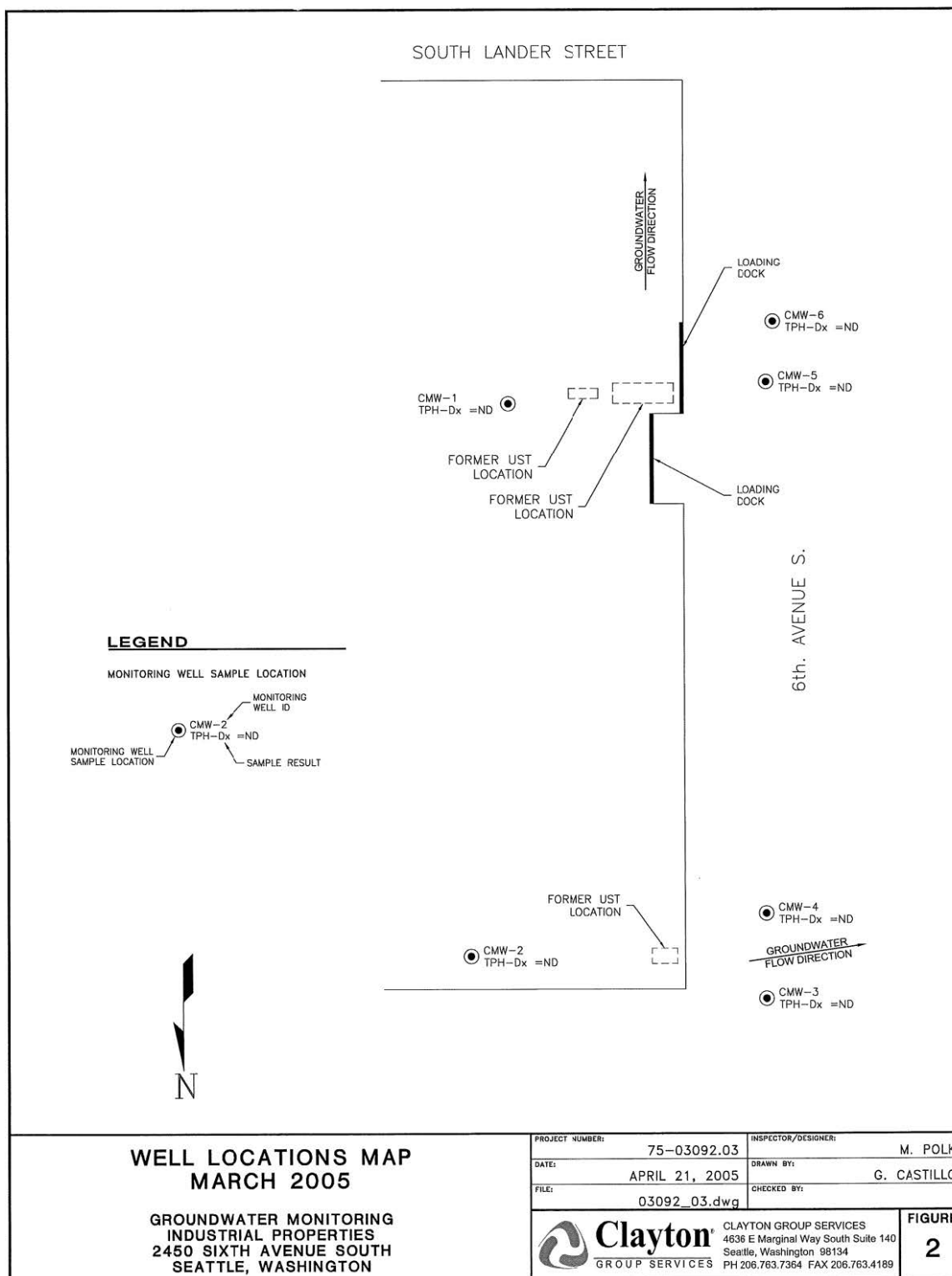
PROJECT NUMBER:	7503092.03	INSPECTOR/DESIGNER:	M. POLK
DATE:	October 14, 2005	DRAWN BY:	G. CASTILLO
FILE:	03092_03.dwg	CHECKED BY:	
 Clayton GROUP SERVICES		CLAYTON GROUP SERVICES 4636 E Marginal Way South Suite 140 Seattle, Washington 98134 PH 206.763.7364 FAX 206.763.4189	FIGURE 1

6.2 Soil Confirmation Samples





6.3 Groundwater Well Map



6.4 Environmental Covenant

CONFORMED COPY

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SHORT CRESSMAN COV 24.00
PAGE 001 OF 006
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KING COUNTY, WA

John J. Houlihan, Jr., Esq.
Short Cressman & Burgess PLLC
999 Third Avenue, Suite 3000
Seattle, WA 98104-4088

(Space above this line for recorder's use only)

DOCUMENT TITLE:	Restrictive Covenant
REFERENCE NUMBER(S) OF RELATED DOCUMENTS:	
Additional reference numbers on page(s) ____ of document.	
GRANTOR:	1. Industrial Properties, Inc. 2. 3.
GRANTEE:	1. Washington State Department of Ecology 2. 3.
ABBREVIATED LEGAL DESCRIPTION:	Lots 7 through 11, Block 252, Plat of Seattle Tide Lands Block 01 – 376
Additional legal on page ____ of document.	
ASSESSOR'S TAX PARCEL NO(S).	766620-3530

RETURN COPY

Mr. Ben Ives
Industrial Properties, Inc.
P.O. Box 1716
Auburn, WA 98071-1716

RESTRICTIVE COVENANT

This declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f and g), and WAC 173-340-440 by Industrial Properties, Inc., its successors and assigns, and the Washington State Department of Ecology, its successors and assigns.

Legal Description: Lots 7 through 11, Block 252, Seattle Tide Lands Blocks 01-376.

Tax Parcel I.D. #: 766620-3530.

RESTRICTIVE COVENANT
INDUSTRIAL PROPERTIES, INC

This Declaration of Restrictive Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Industrial Properties, Inc., its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

An independent remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the following documents:

1. "Underground Storage Tank Closure Report Industrial and Transfer and Storage Co. Inc." by O'Sullivan Omega dated June 13, 1994
2. "Phase I Environmental Site Assessment, Industrial Transfer Warehouse and Storage Yard" by Clayton Group Services dated September 2001
3. "Subsurface Release Investigation Report – Industrial Properties Inc." by Clayton Group Services dated February 2003
4. "Interim Free Product Recover – Industrial Properties Inc." by Clayton Group Services dated February 2003
5. "Underground Storage (UST) Closure and Site Assessment – Industrial Properties Inc." by Clayton Group Services dated April 2003
6. "Site Remediation Feasibility Study – Industrial Properties Inc." by Clayton Group Services dated June 2003
7. "Sampling and Analysis Plan for the Removal of One Underground Storage Tank and the Characterization of Groundwater Quality– Industrial Properties Inc." by Clayton Group Services dated December 2003
8. "Sampling and Analysis Plan for the Removal of Two Underground Storage Tanks – Industrial Properties Inc." by Clayton Group Services dated March 2004
9. "Underground Storage (UST) Removal and Site Assessment – Industrial Properties Inc." by Clayton Group Services dated May 2004

These documents are on file at Ecology's NWRO.

This Restrictive Covenant is required because the Remedial Action resulted in residual concentrations of diesel range total petroleum hydrocarbons which exceed the Model Toxics

Control Act Method A Industrial Cleanup Level for soil and groundwater established under WAC 173-340-745 and WAC 173-340-720.

The undersigned, Industrial Properties Inc., is the fee owner of real property (hereafter "Property") in the County of King, State of Washington that is subject to this Restrictive Covenant. The Property is legally described in Attachment A of this restrictive covenant and made a part hereof by reference.

Industrial Properties Inc. 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.

The Property shall be used only for traditional industrial uses, as described in RCW 70.W5D.020 (23) and defined in and allowed under the City of Seattle's zoning regulations as of the date of this Restrictive Covenant.

No groundwater may be taken for domestic and agricultural use from the Property.

A portion of the Property contains diesel range petroleum hydrocarbons contaminated soil located at the west half of the warehouse. The Owner shall not alter, modify, or remove the existing structures 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.

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 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.

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 Restrictive Covenant and notify all lessees of the restrictions on the use of the Property.

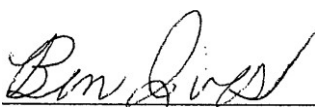
Section 6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment.

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.

Dated: August 20, 2004.

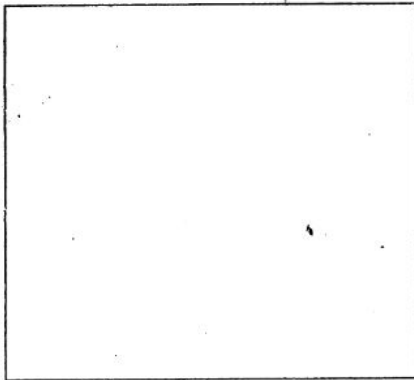
INDUSTRIAL PROPERTIES, INC.

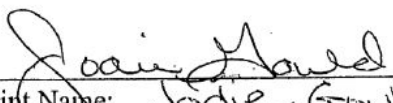

Ben Ives, President

STATE OF WASHINGTON)
)
COUNTY OF KING) SS:

I certify that I know or have satisfactory evidence that Ben Ives is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the President of Industrial Properties, Inc., a corporation, to be the free and voluntary act of such party for the uses and purposes mentioned in this instrument.

DATED: August 20, 2004.




Print Name: Jodie Gauld
NOTARY PUBLIC in and for the State of
Montana residing at Great Falls
My Appointment expires: June 4th 2008

(Use this space for notarial stamp/seal)

6.5 Photo log

Photo 1: Industrial Warehouse Site - from the northwest



Photo 2: Industrial Warehouse Site - from the southwest



Photo 3: Monitoring Wells on West Side of Building – from the north



Photo 4: East Side of Industrial Warehouse Site– from the north

