



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 9, 2015

Mr. Ted Yi
YCH Enterprise Corporation
600 128th Avenue NE
Bellevue, WA 98005

Re: Further Action at a Property Associated with a Site:

- Site Name: Duvall Market
- Property Address: 15802 Main St., Duvall, WA 98019
- Facility/Site No.: 764631
- VCP Project No.: NW2972
- Cleanup Site ID No.: 499

Dear Mr. Yi:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of a Property associated with the Duvall Market 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.

Issues Presented and Opinion

1. Is further remedial action necessary at the Property to clean up contamination associated with the Site?

YES. Ecology has determined that further remedial action is necessary at the Property to clean up contamination associated with the Site.

2. Is further remedial action also necessary elsewhere at the Site?

YES. Ecology has determined that further remedial action is also necessary elsewhere at the Site.

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 Property and the Site

This opinion applies only to the Property and the Site described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The Property includes the following tax parcels in King County, which were affected by the Site and addressed by your cleanup:

- 2130700470
- 2130700460
- 2130700445

Enclosure A includes a description of the Property. **Enclosure B** includes a diagram of the Site that illustrates the location of the Property within the Site.

2. Description of the Site.

The Site is defined by the nature and extent of contamination associated with the following release:

- Total gasoline range petroleum hydrocarbons (TPHg) and benzene into soil.

That release has affected more than just the identified parcel of real property; it has also affected the right of way to Main Street Northwest.

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

3. Identification of Other Sites that may affect the Property.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the Property is affected by other sites.

Basis for the Opinion

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

1. Kane Environmental, Limited Phase II Environmental Site Assessment, April 7, 2015.
2. WT Services Company, Independent Cleanup Action, 15802 Main Street, Duvall, WA, September 24, 2002.

The reports listed above will be kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at (425) 649-7235 or sending an email to:
nwro_public_request@ecy.wa.gov.

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 **further remedial action** is necessary at the Property to clean up contamination associated with the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards for the Site and select a cleanup for the Property.

- Empirical data demonstrating that the ground water at the Site is not affected or not likely to be affected by the contamination is required. This information should include, but is not limited to, ground water occurrence, flow direction, and ground water quality.
- The lateral and vertical extent of the contamination in soil has not been delineated.
 - Results from soil boring B-1 indicate that contamination with TPHg above the MTCA Method A cleanup level remains at depths of 4 and 6.5 feet below ground surface (bgs) outside of the Property boundary. Additional sampling is recommended to delineate the extent of the contamination outside the property boundaries and evaluate additional remediation alternatives.
 - Results from the boundaries of the excavation collected in 2002 (samples 729-01, 729-05, and 808-01) exceed the MTCA Method A cleanup level for benzene and/or TPHg. No additional samples have been collected in these areas to confirm if this contamination was removed, has attenuated or its current extent. Additional sampling in this area is recommended to

delineate the extent of the contamination outside the property boundaries and evaluate additional remediation alternatives.

- The Terrestrial Ecological Evaluation (TEE) form included with the 2015 report is completed incorrectly. If a Site qualifies for a TEE exclusion, it does not need further evaluation, therefore Section 3B does not need to be completed. The first two exclusions that are checked are not applicable to this Site. Only the undeveloped land exclusion (WAC 173-340-7491 (1)(c)) is applicable. There are less than 1.5 contiguous acres of undeveloped land on or within 500 feet of the Site.

2. Establishment of cleanup standards for the Site.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

a. Soil

Current Site uses include businesses to which the public has access; therefore unrestricted land use is the appropriate basis for development of soil cleanup levels. Method A soil cleanup levels have been proposed. Ecology concurs with the selection of Method A cleanup levels.

Ecology does not concur with the proposed point of compliance of eight feet bgs and within the adjacent rights of way. The point of compliance for soil for the protection of ground water is throughout the Site, which is the standard point of compliance.

b. Ground Water

The highest beneficial use for ground water is presumed to be drinking water under MTCA. While groundwater was not encountered during Site investigation, additional information justifying why ground water is not likely to be affected is required. Refer to WAC 173-340-747 (9) for procedures on completing an empirical demonstration.

3. Selection of cleanup for the Property.

Ecology has determined the cleanup you selected for the Property does not meet the substantive requirements of MTCA.

Excavation and transportation of gasoline contaminated soils was selected as the cleanup action and completed in 2002. The selected cleanup actions have not complied with all

of the established cleanup standards (WAC 173-340-360 (2)(a)(ii)) within the established points of compliance.

4. Cleanup of the Property.

Ecology has determined the cleanup you performed does not meet the applicable Site cleanup standards within the Property.

Excavation and transport off-site of the gasoline contaminated soil has not met the established cleanup levels at the appropriate points of compliance. Contamination remains in the soil at levels exceeding MTCA Method A cleanup levels. The extent of the remaining contamination laterally and vertically is unknown.

Electronic submittal of all sampling data into Ecology's electronic Environmental Information Management (EIM) database is a requirement in order to receive a final Ecology opinion for this Site. Jenna Durkee (email jedu461@ecy.wa.gov, or via telephone at 509-454-7865) is Ecology's contact and resource on entering data into EIM.

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**:

- Change the boundaries of the Site.
- 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.

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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).

Contact Information

Thank you for choosing to clean up your Property under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

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, please contact me by phone at (425) 649-7058 or by e-mail at taca461@ecy.wa.gov.

Sincerely,



Tamara Cardona, PhD
Toxics Cleanup Program

Enclosures: A – Description of the Property
B – Diagrams of the Site (including the Property)

cc: David Rankin, Kane Environmental
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Description of the Property

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is described as total gasoline range petroleum hydrocarbons (TPHg) and benzene in soil located at 15820 Main Street Northeast in Duvall, WA (Property). The Property corresponds to King County tax parcel numbers 2130700470, 2130700460, and 2130700445.

Area and Property Description: The Property is the location of a convenience store (Duvall Market). The Property is bounded by NE Virginia Street to the north; Main Street to the west; an alley to the east, and NE Stewart Street to the south.

Property History and Current Use: The Duvall Market consists of a single split-level 6,744-square foot building on the north half of the Property in a mixed land use zone. Businesses nearby include an antique mall to the north, a closed drive-through car wash to the northeast, a tavern to the west, and a Shell convenience store/gasoline station to the southwest. There is also vacant land to the northwest and a single family residence to the west.

Sources of Contamination: The source of contamination on the Property was two former gasoline underground storage tanks (USTs) that reportedly last operated in 1976. The USTs had storage capacities of approximately 675 and 4,000 gallons. They were both decommissioned in 2002.

Physiographic Setting: The Site is located at an elevation of approximately 70-75 feet above mean sea level. It is located in the Puget Sound Basin, east of the Puget Sound Lowland Physiographic Province and in the Cascade Mountain foothills. The site is underlain by Tokul Alluvium.

Surface/Storm Water System: The surface water body closest to the Site is the Snoqualmie River approximately 500 feet to the west. Surface water runoff in the area is captured in municipal storm drains and transported to the nearest surface water drainage.

Ecological Setting: The surface of the Property is covered by pavement and a building. The Property is located in a mixed use area. Small landscaped or green areas are present on the Property and on some nearby properties; however, because the roadways have high traffic, these landscaped areas are not expected to attract wildlife.

Geology: Soil at the Site consists of silty sand with gravel to depths of up to 15 feet bgs, the maximum depth explored.

Ground Water: Ground water has not been encountered during Site investigation and remediation to depths of 15 feet below ground surface, the maximum depth explored.

Water Supply: The City of Duvall purchases water from Seattle Public Utilities. Seattle Public Utilities obtains water from the Cedar River Watershed.

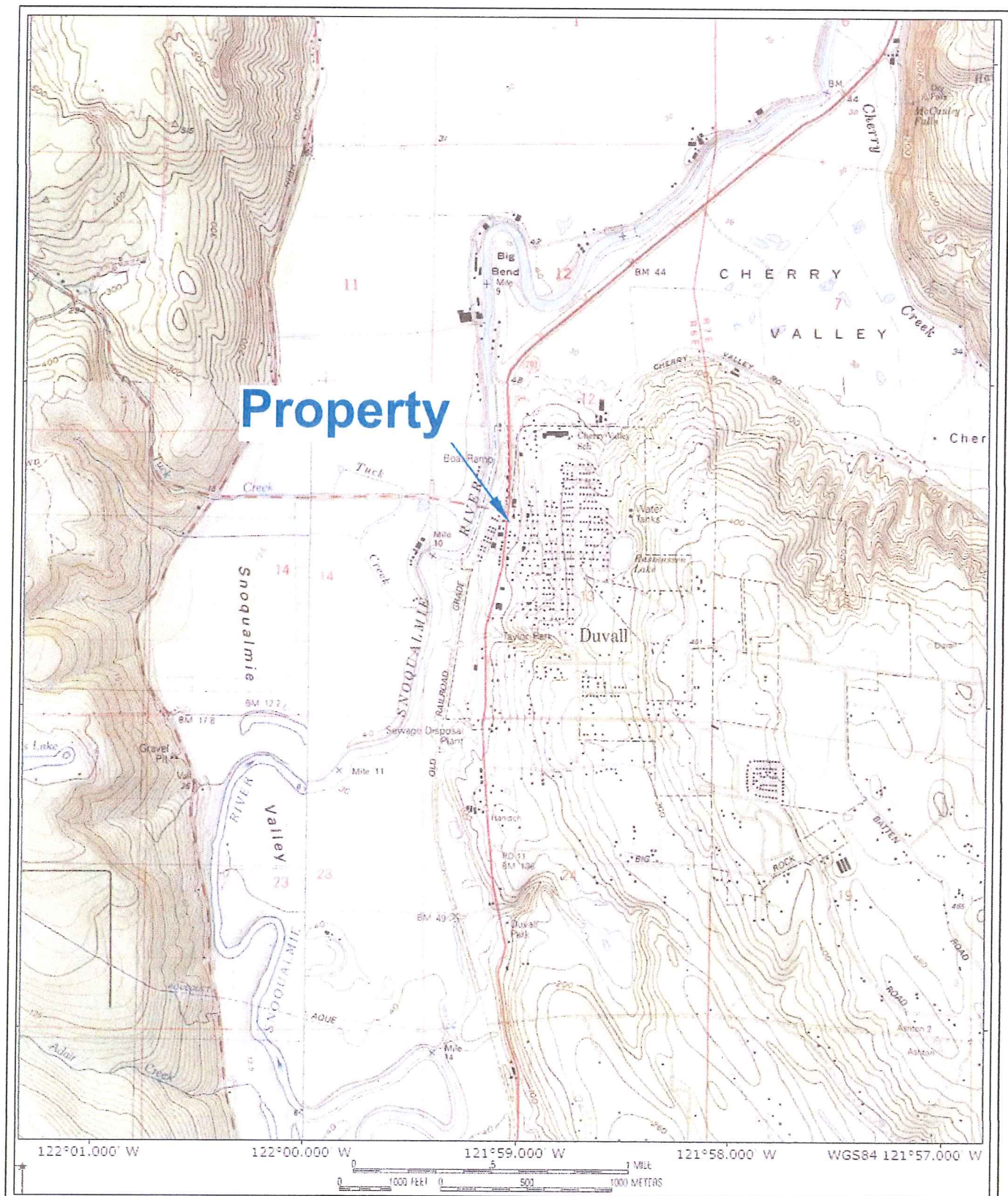
Release and Extent of Soil and Ground Water Contamination: Soil contamination was the result of a release from two gasoline USTs installed on the Property prior to the 1970's. Contamination was encountered in 2002 at the time the tanks were removed at concentrations above MTCA Method A cleanup levels. A sample at a depth of five feet bgs near the southern edge of the Property had concentrations as high as 1,700 milligrams per kilogram (mg/kg) of TPHg, 2.4 mg/kg of benzene, 12 mg/kg of toluene, 9 mg/kg of ethylbenzene and 31 mg/kg of xylenes. Following removal of the USTs, an estimated 236 tons of soil were removed and disposed off-site. However, after confirmation samples were collected and analyzed, it was determined that contamination remained in the southwest corner of the excavation at a depth of three feet bgs (sampling location 808-03) at concentrations above MTCA Method A cleanup levels for TPHg and benzene (400 mg/kg and 0.08 mg/kg respectively).

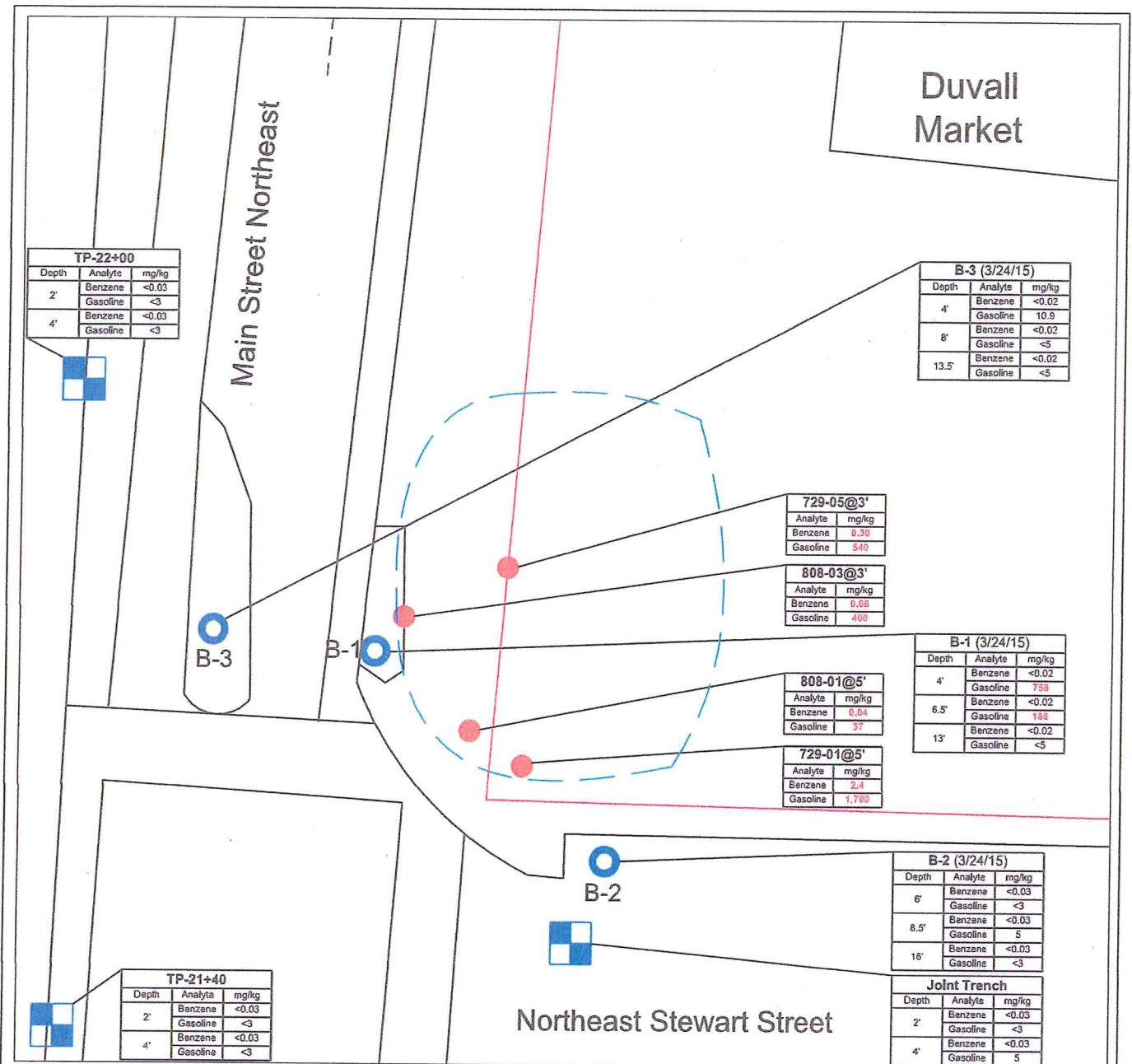
In preparation for reconstruction on Main Street in 2008, the City of Duvall conducted a geotechnical design study for the new pavement and utilities. Test pits were excavated to depths of four feet in the utility alignment and soil samples were collected at depths of two and four feet bgs in each of the test pits. No contamination was detected in the test pits closest to the former excavation area, which were at least 20 feet from the southern and western edge of the former excavation boundaries.

In 2015 a Limited Phase II Environmental Site Assessment was completed. Three soil borings were installed within the City of Duvall right of way adjacent to the Property. Borings were advanced using hollow stem augers, one south and two west of the former excavation area. Borings were completed to maximum depths of 14 to 16.5 feet bgs or until drill rig refusal occurred on dense glacial till. No indicators of gasoline contamination were observed. However, results from the boring closest to the western edge of the excavation (B-1) indicate that gasoline contamination remains at depths of four and six feet bgs above the MTCA Method A cleanup level.

Enclosure B

Diagrams of the Site





LEGEND

- Approximate location of property line
- Approximate location of hollow stem auger borings (3/24/15)
- Approximate Extent of Remedial Excavation (WT Services, 2002)
- Approximate location of soil samples with results in red exceeding MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses (WT Services, 2002)
- Approximate Location of Test Pit and Results (HWA, 2008)

0 20 40
Approximate Scale in Feet

