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DEPARTMENT OF ECOLOGY
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October 7, 2013

MR. ALEX TRUCHOT
GROUP HEALTH
12501 E MARGINAL WAY S
TUKWILA, WA 98168-2560

Re: Opinion pursuant to WAC 173-340-515(5) on Proposed Remedial Action for the following Hazardous Waste Site:

- **Site Name:** Group Health Cooperative of Puget Sound
- **Site Address:** 801 SW 16th Street, Renton, WA 98055
- **Facility/Site No.:** 16471336
- **VCP Project No.:** NW 1770
- **Cleanup Site ID No.:** 5599

Dear Mr. Truchot:

Thank you for submitting documents regarding your proposed remedial action for the **Group Health Cooperative of Puget Sound** facility (Site) for review by the Washington State Department of Ecology (Ecology) under the Voluntary Cleanup Program (VCP). Ecology appreciates your initiative in pursuing this administrative option for cleaning up hazardous waste sites under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

This letter constitutes an advisory opinion regarding a review of submitted documents/reports pursuant to requirements of MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the following release(s) at the Site:

- Total petroleum hydrocarbons in the gasoline range (TPH-G), benzene, toluene, ethylbenzene and xylenes (BTEX) into the Soil and Ground Water

Ecology is providing this advisory opinion under the specific authority of RCW 70.105D.030(1)(i) and WAC 173-340-515(5).

This opinion does not resolve a person's liability to the state under MTCA or protect a person from contribution claims by third parties for matters addressed by the opinion. The state does not have the authority to settle with any person potentially liable under MTCA except in

accordance with RCW 70.105D.040(4). The opinion is advisory only and not binding on Ecology.

Ecology's Toxics Cleanup Program has reviewed the following information regarding your proposed remedial actions:

1. URS, 2010. *Limited Soil Investigation Report, Former Group Health DSSF, TCP ID# NW1770, 801 SW 16th Street, Renton, Washington.* June 22.

2. URS, 2009. *Letter Report Groundwater Monitoring Results, Former Group Health DSSF, TCP #1770, 801 SW 16th Street, Renton, Washington.* January 27.

3. URS, 2006. *Request for Modification to Restrictive Covenant, Former Group Health Cooperative DSSF, Renton, Washington.* July 5.

4. ATC Environmental, 1998. *Water Quality Results for Groundwater Sampling Events – December 1996 and July and October, 1977, Distribution and Support Services Facility, Renton, Washington.* March 2.

5. ATC Environmental, 1996. *Independent Remedial Action Report, Distribution and Support Services Facility, 801 S.W. 16th Street, Renton, Washington.* June 4.

6. Pickering Environmental Consultants, Inc., 1992. *Corrective Action Plan for Group Health Cooperative DSSF, 801 S.W. 16th Street, Renton, Washington 98055.* September.

7. Pickering Environmental Consultants, Inc., 1992. *Phase Two Environmental Site Assessment of Group Health Cooperative DSSF, 801 S.W. 16th Street, Renton, Washington 98055.* April.

8. Pickering Environmental Consultants, Inc., 1992. *Site Assessment UST Decommissioning, Group Health Cooperative Distribution and Support Services Facility, 801 S.W. 16th Street, Renton, Washington 98055.* January 3.

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

The Site is defined by the extent of contamination caused by the following releases:

- Total petroleum hydrocarbons in the gasoline range (TPH-G), benzene, toluene, ethylbenzene and xylenes (BTEX) into the Soil and Ground Water

The Site is more particularly described in Enclosure A to this letter, which includes a detailed Site diagram. The description of the Site is based solely on the information contained in the documents listed above.

Based on a review of supporting documentation listed above, pursuant to **requirements contained in MTCA and its implementing regulations, Chapter 70.105D RCW and Chapter 173-340 WAC, for characterizing and addressing the releases at the Site, Ecology has determined:**

- Details regarding construction on the Property need to be included in future submittals, including removal of buildings and whether or not additional removal of contaminated soil left in place to the north of the original excavations has since been conducted. Soil samples from borings advanced in 2010 detected TPH-G, ethylbenzene and xylenes in this area at concentrations below cleanup levels. However, it is likely that residual contamination in soil remains in that area that is contributing to recalcitrant benzene concentrations in ground water exceeding the MTCA Method A cleanup level.

- There is potential terrestrial habitat west of the Property. A Terrestrial Ecological Evaluation (TEE) may be required unless it is determined the Site qualifies for an exclusion. The TEE decision-making process must be documented as per WAC 173-340-7490. A TEE process interactive user's guide can be found at: http://www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm

- The monitoring well network at the Site that was sampled in 2007 and 2008 consisted of four monitoring wells including MW-10, MW-13, MW-25 and MW-26 and extraction well GWE-1. It is Ecology's understanding that this configuration is a subset of the monitoring wells on the Site. There were 13 original monitoring wells, some of which were destroyed during construction activities. Some of the destroyed wells were replaced. Ecology requests a table showing the original monitoring wells, which wells were destroyed, which wells replaced the destroyed wells and which wells are currently on the Site.

- Ecology requires current data from all monitoring wells on the Site.

- Ecology requires a minimum of four consecutive quarters of ground water sampling

data below MTCA cleanup levels in order for the Site to be considered for a No Further Action determination.

This opinion does not represent a determination by Ecology that a proposed remedial action will be sufficient to characterize and address the specified contamination at the Site or that no further remedial action will be required at the Site upon completion of the proposed remedial action. To obtain either of these opinions, you must submit appropriate documentation to Ecology and request such an opinion under the VCP. **This letter also does not provide an opinion regarding the sufficiency of any other remedial action proposed for or conducted at the Site.**

Please note that this opinion is based solely on the information contained in the documents listed above. Therefore, if any of the information contained in those documents is materially false or misleading, then this opinion will automatically be rendered null and void.

The state, Ecology, and its officers and employees make no guarantees or assurances by providing this opinion, and no cause of action against the state, Ecology, its officers or employees may arise from any act or omission in providing this opinion.

Again, Ecology appreciates your initiative in conducting independent remedial action and requesting technical consultation under the VCP. As the cleanup of the Site progresses, you may request additional consultative services under the VCP, including assistance in identifying applicable regulatory requirements and opinions regarding whether remedial actions proposed for or conducted at the Site meet those requirements.

If you have any questions regarding this opinion, please contact me by phone at (425) 649-7064 or by email at hvic461@ecy.wa.gov.

Sincerely,

Heather Vick

Heather Vick, LHg
NWRO Toxics Cleanup Program

Enclosure: (1) A – Site Description and Diagrams

cc: Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Description and Diagrams of the Site

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 defined as petroleum hydrocarbons in the gasoline range (TPH-G), benzene, toluene, ethylbenzene and xylenes (BTEX) in soil and ground water at 801 SW 16th Street in, Renton, Washington (Property). The Property corresponds to King County parcel number 3340405300 and is 19.95 acres in size.

Area and Property Description: The Property is located at the intersection of SW 16th Street and Raymond Avenue SW and is situated at an elevation of approximately 20 feet above mean sea level. The area surrounding the Property consists of primarily commercial, industrial and undeveloped land uses. The Property is currently occupied by a 311,885-square foot warehouse building complex constructed in 1977.

Property History and Current Use: A 1936 aerial photograph on the King County IMAP website shows the Property's land use as rural residential and pastureland. The Property was used for agricultural purposes until 1977 when it was first developed and the Main Building was constructed. The Annex and the Maintenance Buildings were constructed between 1977 and 1990. The Property is the current the location of the Group Health Cooperative's Distribution and Support Services Facility (DSSF). The DSSF complex is comprised of three building areas, the Main, Annex and Maintenance Buildings. The Main Building contains distribution and support services. The Annex Building is used for general storage. The Maintenance Building is used by maintenance personnel as a workshop and for the storage of equipment.

Sources of Contamination: The source of contamination at the Site is a former 250-gallon, leaded gasoline underground storage tank (UST) that was removed in August 1991. At the time of removal, the UST was determined to have not been leaking however soil samples collected of surrounding soil during the decommissioning indicated a release had occurred.

Physiographic Setting: The Site is located within the Puget Sound Lowland physiographic province, a north-south trending structural and topographic depression is bordered on its west side by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Site is situated in the Green River Trough physiographic subdivision.

Surface/Storm Water System: Springbrook Creek runs along the western edge of the Property.

Ecological Setting: The Site is located in a commercial area and land surfaces are primarily paved or covered by buildings. A potential terrestrial habitat occurs west of the Property across Springbrook Creek.

Geology: Geologic materials underlying the Site consist of interbedded silty sand, clayey sand, silt and clay. Sandy silt and silty sand directly underlie the Site; a sandy clay layer occurs at a depth of approximately 12 feet bgs and may be several feet thick. A medium dense silty sand underlies the clay and is at least 20 feet thick.

Ground Water: Ground water occurs under water table conditions as a shallow aquifer in unconsolidated silty sand-sandy silt. Ground water is encountered on the Site at depths of 9 to 13 feet bgs and flows to the southwest towards Springbrook Creek. The hydraulic conductivity of the shallow aquifer has been estimated to be 0.68 feet/day. Ground water mounding has been observed in the vicinity of extraction well GWE-1, which was installed within or near backfill in the area of the former remedial excavation. The results of the sampling indicated that benzene concentrations in MW-13, although trending downward, were still just above the Method A cleanup level.

Water Supply: Renton's drinking water comes from three sources including Springbrook Springs, a small spring located at the southern city limit and from the Maplewood wellfield located in the Maplewood Golf Course. The third source includes five downtown wells, located in Liberty and Cedar River Parks, which draw water from the Cedar Valley Aquifer. As Renton's primary water source, the Cedar Valley Aquifer has been designated a "sole source" by the U.S. Environmental Protection Agency.

Release and Extent of Soil and Ground Water Contamination:

Soil: During removal of the UST in 1991, petroleum-contaminated soil was discovered adjacent to the former UST. Approximately 10 cubic yards of petroleum-contaminated soil were removed during removal of the UST. A Site Assessment was conducted following the UST removal in which 13 soil borings were drilled and monitoring wells installed in 11 of the borings. Petroleum-contaminated soil and ground water were discovered adjacent to the former UST. Soil impacted with TPH-G and BTEX were encountered from depths of approximately 4.5 to 14.5 feet below the ground surface (bgs). Ground water beneath the Property was also found to be contaminated with TPH-G and BTEX.

A vapor extraction system (VES) and ground water pump and treat system were installed and began operation in 1994 after the UST and petroleum-contaminated soil were removed. A ground water extraction well, GWE-1, was installed at that time. The remediation system was evaluated in 1995 after petroleum hydrocarbon concentrations in some monitoring wells increased. The system was found to not be performing optimally.

Site characterization activities performed in 1996 indicated that petroleum-contaminated soil and ground water exceeding Method A cleanup levels was in the area between the Main and Annex buildings. As a result, an additional 3,000 cubic yards of soil were excavated. Confirmation soil samples indicated that contamination was in the bottom and sidewalls of the excavation. The floor of the excavation intercepted ground water and was not dug deeper. Also, the removal of contaminated soil from the north side of the excavation may have affected the structural integrity of the Main Building. However, a field report for May 7, 1996 indicates that contaminated soil was left in place rather than compromise the structural integrity of the building.

In 2010, seven soil borings (B1 through B7) were advanced around the perimeter of the area that had been excavated in 1991 to remove the UST. The soil borings were advanced in response to benzene exceedences above Method A in Site monitoring well MW-13 in 2008. The exceedences indicated that residual petroleum contamination may remain in native soil and be leaching to ground water. Soil borings B1 through B3 were drilled along the western edge of the former UST excavation. Borings B-4 through B7 were drilled within the warehouse along the northern perimeter of the former UST excavation where contaminated soil was reportedly left in place. Borings B-6 and B-7 were drilled adjacent to MW-13 which had benzene exceedences when last sampled in July and October 2008. The borings were drilled using direct push drilling methods and soil samples were collected continuously and field screened. Two soil samples per boring (from above and below the water table) were submitted for laboratory analysis for TPH-G and BTEX. TPH-G was detected in two borings at concentrations ranging from 5.1 to 45 mg/kg. Benzene and toluene were not detected. None of the 14 samples contained TPH-G or BTEX at concentrations exceeding Method A cleanup levels.

Ground Water: After the UST and petroleum-contaminated soil were removed in 1991, 13 soil borings and 11 monitoring wells were installed. The results from this investigation indicated petroleum-contaminated soil and ground water remained in the subsurface after the UST removal.

In 1997, six existing monitoring wells (MW-9, MW-14, MW-15, MW-18, MW-19 and MW-21) that had been previously damaged due to construction on the Property were replaced with five new monitoring wells (MW-23 through MW-27).

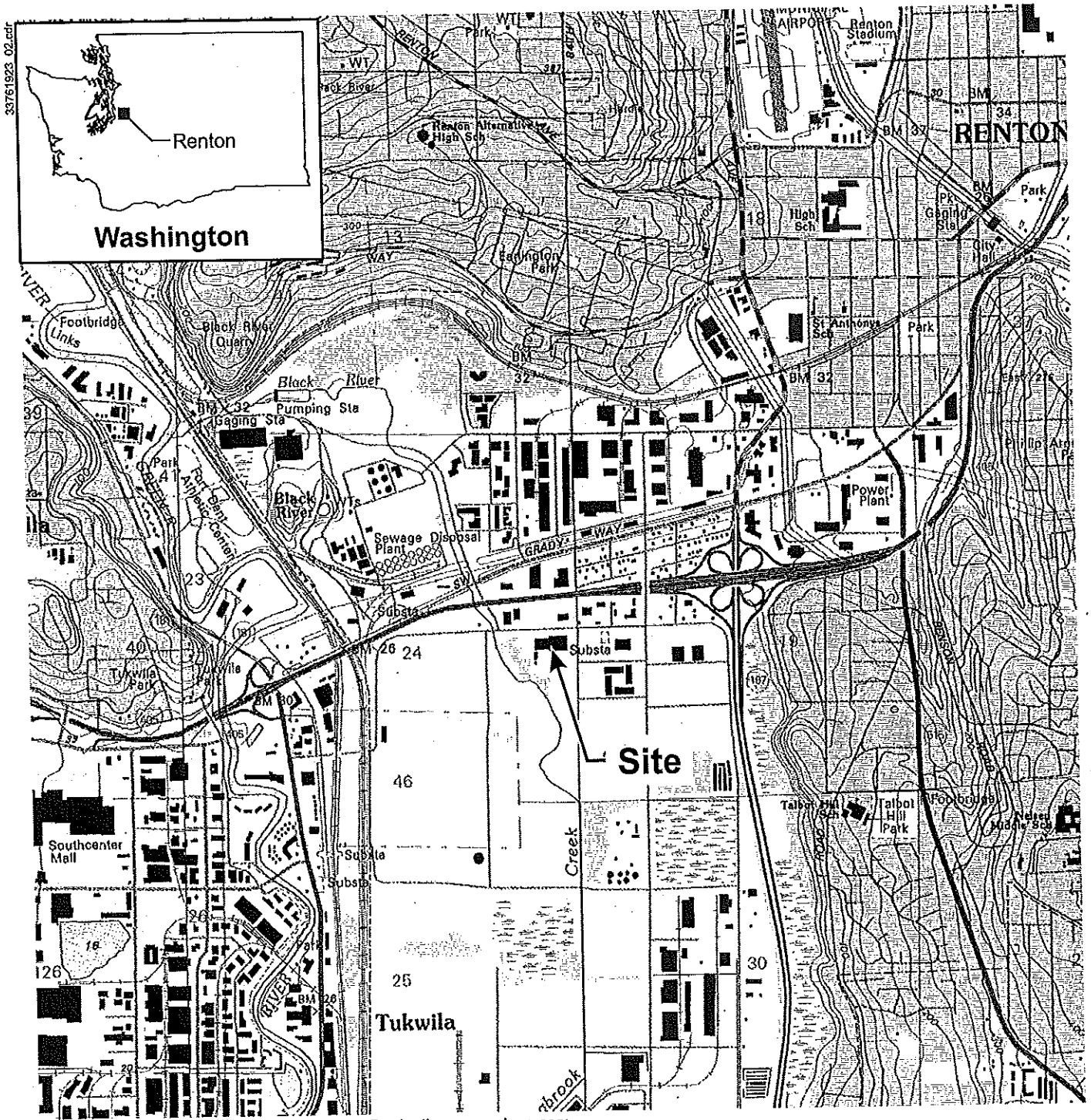
In August 2004, enhanced bioremediation was effective at reducing petroleum hydrocarbon concentrations in ground water using an oxygen releasing compound (ORC). The ORC was introduced in filter socks in six existing monitoring wells (MW-10, MW-11, MW-13, MW-23, MW-26 and MW-27) that had been redeveloped prior to placement of the socks using a vacuum truck.

A ground water extraction well, GWE-1, was in operation until December 2004 when it was shut down to allow extended residence time for the oxygen-enriched ground water and to increase the diffusion and distribution of oxygen in the ground water. The ORC socks, which have a 6-month use duration, were removed in February 2005. A second application of ORC socks was conducted in the same six monitoring wells from March through September 2005.

Ground water monitoring was conducted at the Site from 1997 to October 2007 when concentrations of TPH-G and BTEX decreased to below Method A cleanup levels in four of the monitoring wells including MW-10, MW-25, MW-26 and GWE-1. Monitoring well MW-13 was not sampled in October 2007 because it had been paved over. Ground water monitoring for three additional consecutive quarters was conducted in 2008 using monitoring wells. MW-13 was uncovered in time for the 3 subsequent consecutive quarters (January, April and July 2008). In the

July 2008 event, MW-13 yielded a concentration of benzene that exceeded the Method A cleanup level. Benzene also occurred in monitoring well MW-10 and extraction well GWE-1 during the four quarters but at levels below the Method A cleanup level. In October 2008, a sample was collected from MW-13 to represent the fall quarter that had been missed in 2007, but benzene was again at 5.75 µg/L, just above the Method A cleanup level of 5 µg/L. No subsequent ground water sampling data has been reported to Ecology.

Site Diagrams



Map created with TOPO!™ © 1997 Wildflower Productions, www.topo.com, based on USGS topographic map

Figure 1

Site Location Map

Job No. 33761923

Former Group Health, DSSF
Renton, Wshington

URS

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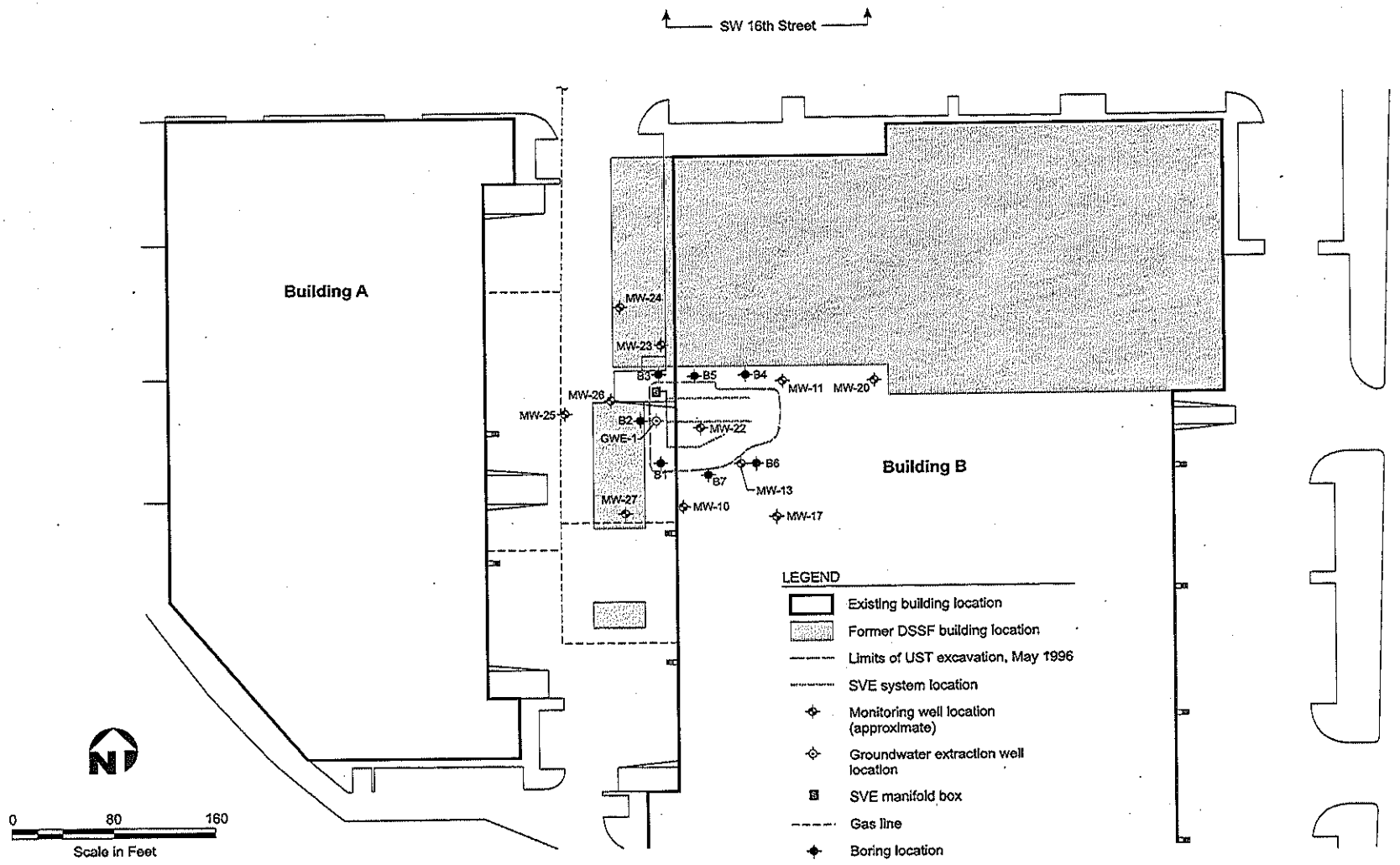

Figure 2
Soil Boring Locations

Former Group Health, DSSF
Renton, Washington

Job No. 33761923

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