URS

GROUNDWATER SAMPLING AND ANALYSIS PLAN
FORMER GROUP HEALTH DSSF
VCP PROJECT NO.: NW1770
FACILITY/SITE NO.: 16471336
801 SW 16th STREET
RENTON, WASHINGTON

Prepared for:

Group Health
URS Project No.: 33764955
March 10, 2015

URS

March 10, 2015

Mr. Alex Truchot
Sr. Health, Safety & Environment Mgr.
CB Richard Ellis
2501 East Marginal Way South
Tukwila, WA 98168

Groundwater Sampling and Analysis Plan
Former Group Health DSSF
VCP No.: NW1770/Facility No.: 16471336810
801 SW 16th Street, Renton, WA
URS Job No. 33764955

Dear Mr. Truchot,

This Groundwater Sampling and Analysis Plan has been prepared on behalf of Group Health and presents the groundwater monitoring activities that will be implemented at the Former Group Health DSSF as well as addresses the Washington Department of Ecology request for information. The plan has been prepared in conformance with our proposal dated October 17, 2014.

We trust this meets your current requirements. If you have any questions or require additional information please feel free to contact us.

Sincerely,

URS CORPORATION

Anthony Palmieri, LG
Project Geologist

David Raubvogel, LHG
Senior Geologist

Copy: Heather Vick, Washington Department of Ecology

URS Corporation
1501 4th Avenue, Suite 1400
Seattle, WA 98101-1616
Tel: 206.438.2700
Fax: 206.438.2699

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TABLE OF CONTENTS

1.0 INTRODUCTION AND BACKGROUND

URS Corporation (URS, a subsidiary of AECOM) has prepared this Sampling and Analysis Plan (SAP) on behalf Group Health to address the Washington Department of Ecology's (Ecology's) request for information presented in their October 7, 2013 letter to Mr. Alex Truchot (Attachment A) and Ms. Heather Vick of Ecology email to Mr. Truchot dated February 26, 2014 regarding the former Group Health Distribution and Support Services Facility (DSSF) located at 801 SW 16th Street in Renton, Washington (Figure 1). Group Health does own or have current operations at the property. The site is presently owned by TIAA CREF and is currently managed by Kidder Matthews.

Contaminated soil was initially identified in 1991 during removal of a gasoline underground storage tank (UST). Impacted soils were detected from approximately 4 to 14.5 feet below ground surface (bgs) and remedial actions at the facility have included soil excavation, soil vapor extraction (SVE); enhanced bioremediation and groundwater pump and treatment (Figure 2). Groundwater monitoring conducted from 1997 to 2008 indicated decreasing concentrations of gasoline constituents. An exceedence of regulatory cleanup levels was noted in only one groundwater monitoring well (benzene concentrations in MW-13) since 2004. The former Ecology case manager, Ms. Jing Liu requested additional groundwater monitoring be conducted to confirm declining levels of benzene in MW-13 (Ecology September 2009 letter).

URS presented the quarterly groundwater monitoring results to Ecology (URS, 2009) and concerns were raised that residual soil contamination could be present within the native soils surrounding the former remedial excavation, which was the cause of the slight benzene exceedance in the MTCA Method A cleanup level noted in MW-13. To address this concern, Ecology requested that soil sampling be conducted around the perimeter of the remedial excavation to evaluate if elevated levels of benzene remain in the site soil.

In May 2010, URS conducted a soil investigation to address Ecology's concern. Seven soil borings (B-1 through B-7) were completed around the perimeter of the former remedial excavation to assess if gasoline range petroleum hydrocarbon contamination was present within the soils beneath the building (Figure 2). Soil samples collected above and below the groundwater table did not detect benzene above the laboratory reporting limit in any of the soil borings. This includes soil borings directly upgradient and downgradient of MW-13. Historical groundwater and soil data are provided in Attachment B.

Ecology provided an opinion regarding the regulatory status of the site in their October 7, 2013 letter (Attachment A), which requested information regarding the condition of the existing monitoring well network, completion of a Terrestrial Ecological Evaluation (TEE), and four quarters of groundwater sampling from the entire monitoring well network was requested before the site could be considered for a No Further Action (NFA) determination.

2.0 SCOPE AND SUPPLEMENTAL INFORMATION

The purpose of the additional activities presented in this plan is to address Ecology's request for current groundwater quality data and updated site information per their letter dated October 7, 2013. The additional information requested is outlined below:

- Existing site documentation was reviewed to determine the condition of the onsite monitoring well network. Based on existing site information, twelve monitoring wells (MW-10,

MW-11, MW-13, MW-17, MW-20, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, and GWE-1) are known to be accessible for sampling (Figure 2). A summary of the monitoring well construction details including historical wells that were decommissioned due to prior construction activities are provided in Table 1. As mentioned above, historical groundwater and soil analytical data for the site is presented in Appendix B. The current site conditions are depicted on Figures 2 and 3.

- A Terrestrial Ecological Evaluation (TEE) was performed and upon review of the most recent site soil analytical data and general site conditions, it was determined that the site did not meet the criteria to qualify for one of the primary exclusions. Alternatively, site soil analytical data was compared to Ecology Table 749-3 "Ecological Indicator Soil Concentrations (mg/kg) of Protection of Terrestrial Plants and Animal." As determined by Ecology Table 749-3, gasoline range organics are the only hazardous substance currently present at the site. The most recent site soil analytical data indicated that the highest concentration of gasoline range petroleum hydrocarbons in soil was 45 mg/kg and is well below 100 mg/kg, which is the gasoline range petroleum concentration listed in Table 749-3 for protection of wildlife. Therefore, further consideration of gasoline range petroleum hydrocarbons is not required and the Terrestrial Ecological Evaluation is complete.

- Additional quarterly groundwater monitoring was requested by Ecology to confirm the current groundwater quality at the site. The proposed groundwater monitoring program is outlined in the SAP presented in Section 3.

3.0 GROUNDWATER SAMPLING AND ANALYIS

Four consecutive quarters of groundwater sampling are proposed to evaluate the levels of gasoline range petroleum hydrocarbons and benzene, toluene, ethylbenzene and xylenes (BTEX). We are proposing to sample monitoring wells MW-10, MW-13, MW-27 and GWE-1on a quarterly basis for one year. These wells were selected based on the detection of benzene during the most recent round of groundwater sampling. The groundwater samples will be collected using low-flow purging methods in accordance with Ecology and U.S. EPA protocols and analyzed by an Ecology-accredited laboratory for gasoline range petroleum hydrocarbons by NWTPH-Gasoline Extended (Gx) and BTEX (Method 8021).

Prior to sampling, the depth to water and the total depth of the well will be measured to the nearest 0.01 foot to provide baseline hydrologic data, to calculate the volume of water in the well. An electronic water level meter will be used to measure the depth to groundwater. Purging of the wells will be accomplished by using a peristaltic pump (0.1 to 0.5 L/min) and the pump intake will be placed in the middle of the calculated saturated screened interval. The purge rate will be low enough that substantial drawdown (>0.3 foot) in the well does not occur during purging. Water level measurements will be collected to assess the water level effects of purging.

Water quality parameters will be collected and recorded on a regular basis during well evacuation. Field parameters to be collected will include temperature, pH, specific conductance, dissolved oxygen, Redox potential, and turbidity. At least seven readings will be taken during the purging process. All information obtained during the purging and sampling process will be entered into a field logbook or recorded on a groundwater sampling form.

Groundwater samples will be collected directly from the low flow purge tubing into laboratory supplied glassware. Each sample will be labeled with a unique sample identification number. Samples will be placed in a cooler with ice, and submitted to Fremont Analytical of Seattle, WA (a Department of

Ecology accredited laboratory) for analysis under chain-of-custody protocol. The groundwater samples will be analyzed for gasoline range petroleum hydrocarbons by Method NWTPH-Gx and BTEX by Method 8260C. A VOC trip blank will accompany the sample containers during transport for quality assurance. All non-disposable sampling equipment will be decontaminated using a dilute liquid Alconox solution.

FIGURES

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

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0 0.5 1

Approximate Scale in Miles

Figure 1

Site Location Map

Job No. 33761923

URS

Former Group Health, DSSF
Renton, Wshington

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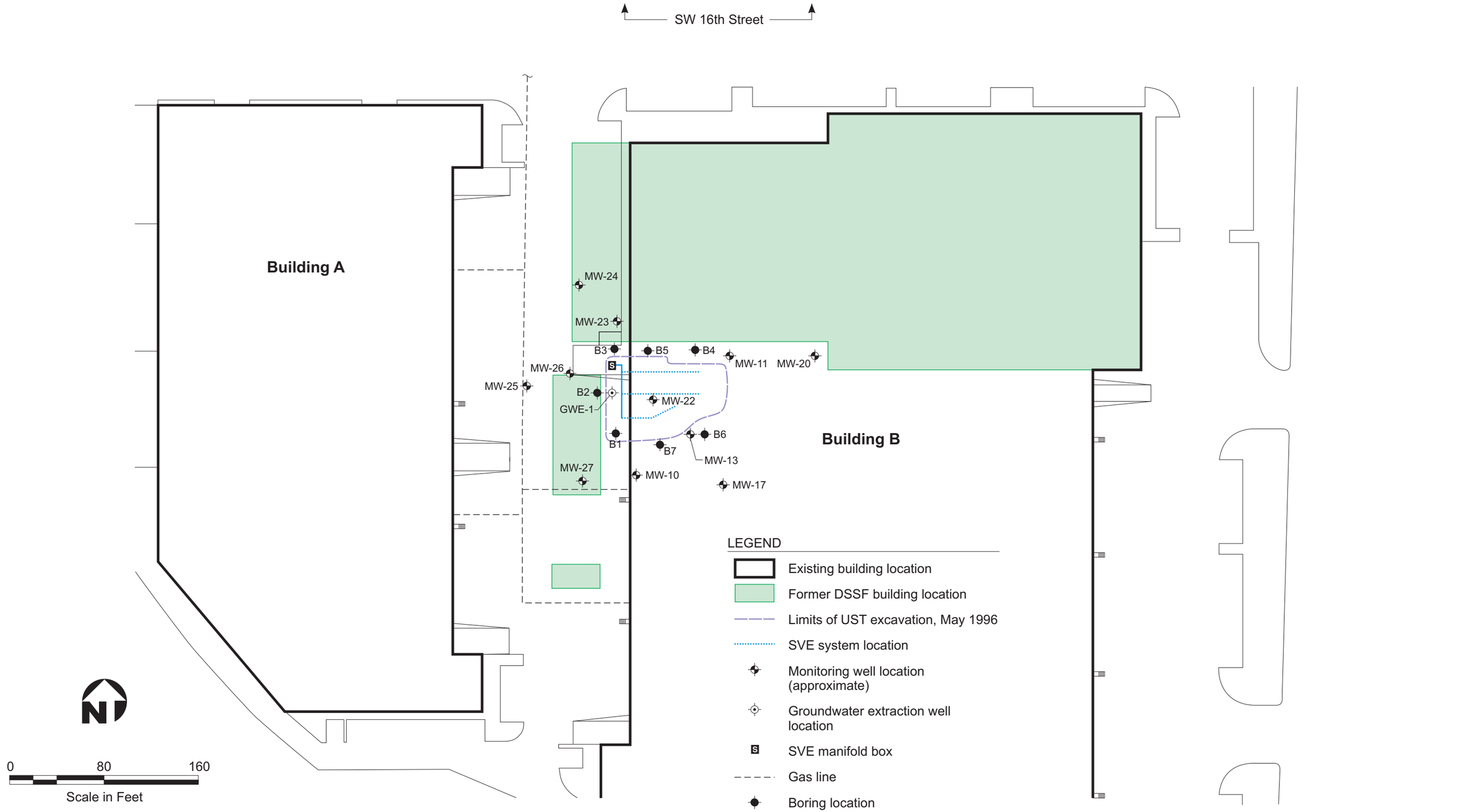

Job No. 33761923

Figure 2
Site Plan

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Former Group Health, DSSF
Renton, Washington

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Source: Google Earth Pro, imagery date 7/10/2014

Job No. 33764955

Figure 3

Vicinity Plan

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Former Group Health, DSSF
Renton, Washington

TABLES

Table 1
Summary of Monitoring Wells
Former Group Health DSSF
Renton, Washington

Monitoring Well	Screen Interval (ft bgs)	Reference Elevation (ft above msl)[1]	Status					
				10/19/2007	1/15/2008	4/10/2008	7/29/2008	10/23/2008
MW-1	Unknown	Unknown	Destroyed	**NA**	**NA**	**NA**	**NA**	NA
MW-2	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-3	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-4	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-5	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-6	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-9	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-10	18.5-8.5 [3]	23.46	Accessible	10.50	10.52	10.96	10.21	NA
MW-11	18.5-8.5 [3]	22.48	Accessible	NA	NA	NA	NA	NA
MW-12	Unknown	Unknown	Destroyed	NA	NA	NA	NA	NA
MW-13	18.5-8.5 [3]	23.31	Accessible	NA	11.66	11.02	10.01	10.15
MW-17	21-11 [3]	23.11	Accessible	NA	NA	NA	NA	NA
MW-20	19.5-9.5 [3]	23.19	Accessible	NA	NA	NA	NA	NA
MW-22*	5-40 [3]	23.35	Accessible	NA	NA	NA	NA	NA
MW-23	5-40	21.65	Accessible	11.22	NA	NA	NA	NA
MW-24	5-20	20.09	Accessible	11.57	NA	NA	NA	NA
MW-25	5-20	18.6	Accessible	10.05	NA	10.01	9.15	NA
MW-26	5-20	19.25	Accessible	10.30	11.32	10.50	9.64	NA
MW-27	5-20	18.72	Accessible	9.81	NA	NA	NA	NA
GWE-1 [4]	5-37 [5]	19 [5]	Accessible	NA	12.17	11.35	10.30	NA

Notes:

ft bgs = Feet Below Ground Surface.

ft above msl = Feet Above Mean Sea Level.

NA = Data not available.

[1] Elevations measured by Hallin & Associates, 6/97

[2] Measurements by ATC Associates, Inc.

[3] Estimated screen interval, well as-built not available.

[4] GWE-1 is a groundwater recovery well installed within the soil excavation.

[5] Elevation measurement of 22.49 ft appears questionable, elevation is estimated to be 19 ft.

ATTACHMENT A

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

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).

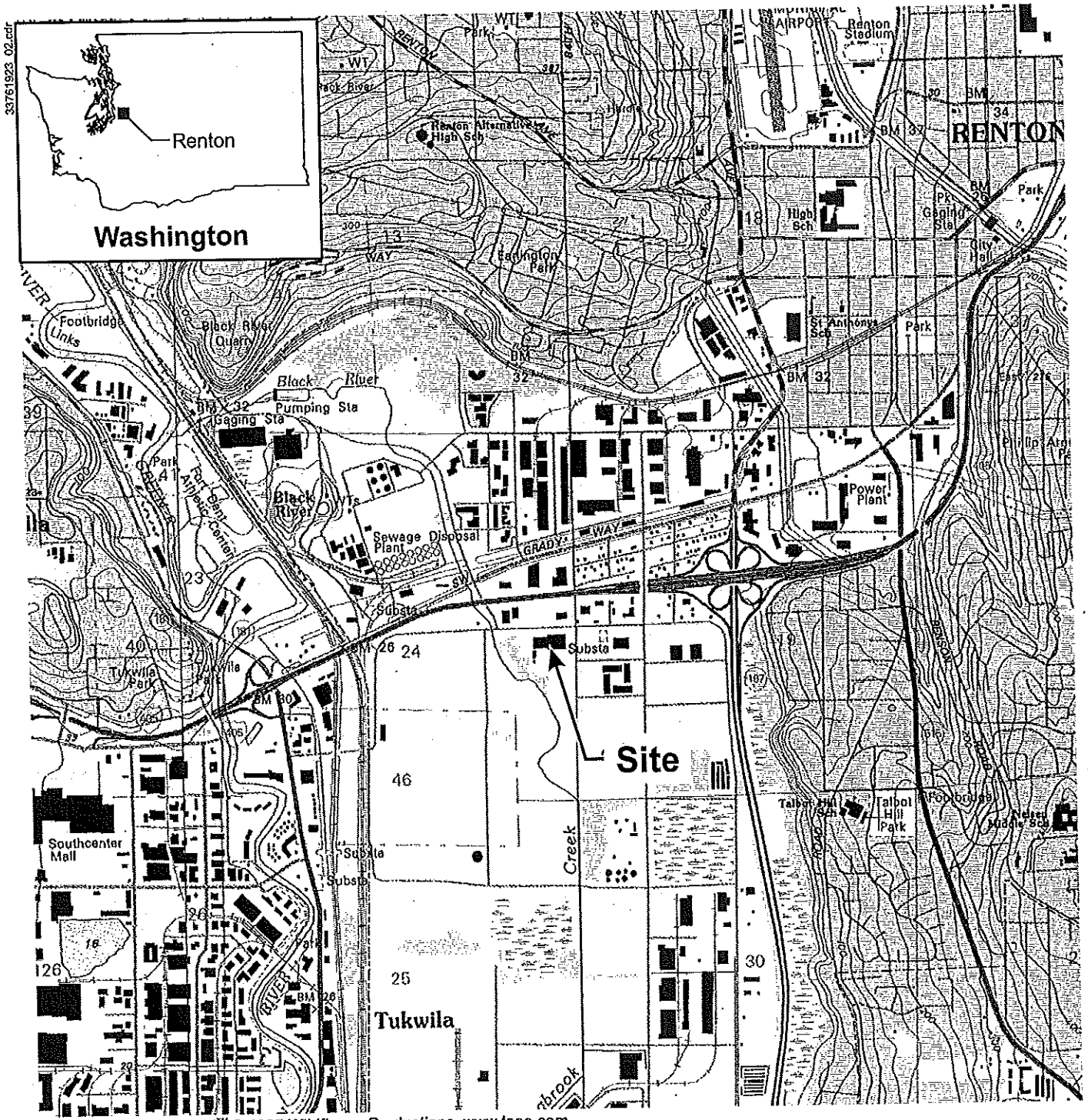
In August 2004, enhanced bioremediation was effective at reducing petroleum hydrocarbon concentrations in ground water using an oxygen releasing compound (ORC). The ORC was introduced in filter socks in six existing monitoring wells (MW-10, MW-11, MW-13, MW-23, MW-26 and MW-27) that had been redeveloped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

N

0 0.5 1

Approximate Scale in Miles

Figure 1

Site Location Map

Job No. 33761923

URS

Former Group Health, DSSF
Renton, Wshington

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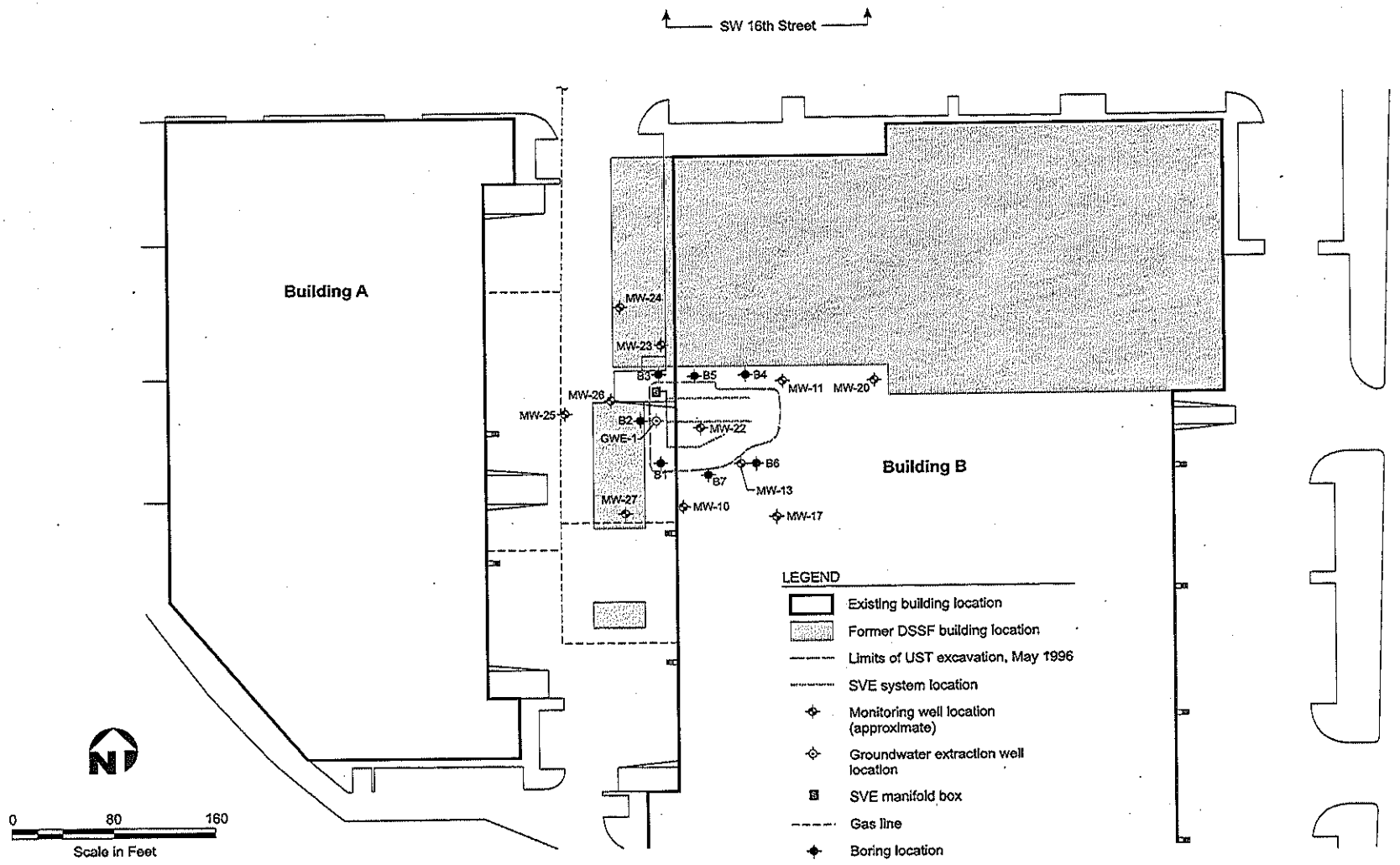

Figure 2
Soil Boring Locations

Former Group Health, DSSF
Renton, Washington

Job No. 33761923

URS

From: Truchot, Alex (CBRE)
To: Raubvogel, David
Subject: FW: VCP NW 1770 - Group Health Cooperative of Puget Sound
Date: Wednesday, March 05, 2014 10:16:44 AM

David, I will forward you the official interpretation letter that the DOE sent. I would like to get quote to complete the work required this year (TEE issue, sample plan, etc.). It you could also give an estimate as to the cost to do the quarterly sampling needed and the final report in 2015, I would appreciate that also.

Thank you,

Alex Truchot, MM, HEM | Group Health Account
Sr. Health, Safety & Environment Manager
CBRE | Global Corporate Services
12501 East Marginal Way South, ASB-1 | Tukwila, WA 98168
T 206 988-2909 | C 206-510-7698
truchot.a@ghc.org | alex.truchot@cbre.com | www.cbre.com
Connect with me on LinkedIn
Follow CBRE: Facebook | @cbre | Google+

From: Vick, Heather (ECY) [mailto:HVIC461@ECY.WA.GOV]
Sent: Wednesday, February 26, 2014 9:18 AM
To: Truchot, Alex (CBRE)
Subject: RE: VCP NW 1770 - Group Health Cooperative of Puget Sound

Hi Alex,
If Group Health intends to submit a sampling plan for 2015 that will be reviewed by Ecology:

- The table (third bullet in letter) showing the status of all monitoring wells on the Site should be included.

- Figures in the work plan should show current Site features and buildings as requested in the first bullet, as well as any additional soil removal activities that have been conducted (first bullet).

- The TEE issue (second bullet) should be addressed as soon as possible in order to determine if cleanup levels for the Site to protect terrestrial species are necessary. The Site qualifies for an exclusion from further TEE evaluation if there are currently less than 1.5 contiguous acres of undeveloped land within 500 feet of any part of the Site.

Let me know if you would like to discuss this further.

Heather

Heather Vick, LHg
Voluntary Cleanup Program - NWRO
Washington Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008

Phone: (425) 649-7064
Fax: (425) 649-7098
Email: hvic461@ecy.wa.gov

From: Truchot, Alex (CBRE) [mailto:truchot.a@ghc.org]
Sent: Tuesday, February 25, 2014 1:25 PM
To: Vick, Heather (ECY)
Subject: RE: VCP NW 1770 - Group Health Cooperative of Puget Sound

This year we intended to submit a sampling plan for testing in 2015. Do we need to address the issues on page 3 or can they be addressed in the final report submitted in 2015 after four consecutive quarters of testing?
Thank you,
Alex Truchot, MM, HEM | Group Health Account
Sr. Health, Safety & Environment Manager
CBRE | Global Corporate Services
12501 East Marginal Way South, ASB-1 | Tukwila, WA 98168
T 206 988-2909 | C 206-510-7698
truchot.a@ghc.org | alex.truchot@cbre.com | www.cbre.com
Connect with me on LinkedIn
Follow CBRE: Facebook | @cbre | Google+

From: Vick, Heather (ECY) [mailto:HVIC461@ECY.WA.GOV]
Sent: Wednesday, October 30, 2013 4:13 PM
To: Truchot, Alex (CBRE)
Subject: RE: VCP NW 1770 - Group Health Cooperative of Puget Sound

Alex,
I am attaching an electronic copy of the opinion letter dated October 7, 2013 for the above referenced VCP site. The original letter is being sent to your attention and will go out in tomorrow's mail.

Thank you,
Heather

Heather Vick, LHg
Voluntary Cleanup Program - NWRO
Washington Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008
Phone: (425) 649-7064
Fax: (425) 649-7098
Email: hvic461@ecy.wa.gov

From: Truchot, Alex (CBRE) [mailto:truchot.a@ghc.org]
Sent: Monday, October 07, 2013 10:35 AM

To: Vick, Heather (ECY)
Subject: RE: VCP NW 1770 - Group Health Cooperative of Puget Sound

Thank you for our call. To confirm my understanding, we will need to address your comments and addressing them can be part of a work plan that we plan on submitting next year. We understand that yearly activity is needed. The 2014 activity will be the work plan and the 2015 activity will be sampling per the 2014 work plan.

Thank you,

Alex Truchot, MM, HEM | Group Health Account
Sr. Health, Safety & Environment Manager
CBRE | Global Corporate Services
12501 East Marginal Way South, ASB-1 | Tukwila, WA 98168
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Follow CBRE: Facebook | @cbre | Google+

From: Vick, Heather (ECY) [mailto:HVIC461@ECY.WA.GOV]
Sent: Monday, October 07, 2013 10:21 AM
To: Truchot, Alex (CBRE)
Subject: RE: VCP NW 1770 - Group Health Cooperative of Puget Sound

Alex,
Thank you, the form you sent has the information I needed and email is fine.

Thank you,
Heather

Heather Vick, LHg
Voluntary Cleanup Program - NWRO
Washington Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008
Phone: (425) 649-7064
Fax: (425) 649-7098
Email: hvic461@ecy.wa.gov

From: Truchot, Alex (CBRE) [mailto:truchot.a@ghc.org]
Sent: Monday, October 07, 2013 10:18 AM
To: Vick, Heather (ECY)
Subject: RE: VCP NW 1770 - Group Health Cooperative of Puget Sound

Also, do I still need to mail it or will the last email suffice?

Thank you,

Alex Truchot, MM, HEM | Group Health Account
Sr. Health, Safety & Environment Manager
CBRE | Global Corporate Services
12501 East Marginal Way South, ASB-1 | Tukwila, WA 98168
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Connect with me on LinkedIn
Follow CBRE: Facebook | @cbre | Google+

From: Vick, Heather (ECY) [mailto:HVIC461@ECY.WA.GOV]
Sent: Sunday, October 06, 2013 3:57 PM
To: Truchot, Alex (CBRE)
Subject: FW: VCP NW 1770 - Group Health Cooperative of Puget Sound

PS I also realize you may are probably the new point of contact; the form needs to specify who it is. If you can send an email letting me know that ahead of the form that would be great.

From: Vick, Heather (ECY)
Sent: Sunday, October 06, 2013 3:47 PM
To: 'Truchot, Alex (CBRE)'
Subject: VCP NW 1770 - Group Health Cooperative of Puget Sound

Alex,
I am completing the opinion letter requested for the above referenced VCP site and will have it in review by tomorrow.

The request for an opinion was signed by Mr. William Biggs of Group Health. I need to ask if he is the new Point of Contact for Group Health and if so can you let me know when you get this message? Previously it was Frank Disanto of Trammel Crow, Inc. If Mr. Biggs is now the Point of Contact, the form at the following link needs to be completed and sent in (emailed to me preferably):

https://fortress.wa.gov/ecy/publications/SummaryPages/ECY070218.html

Thank you,
Heather

Heather Vick, LHg
Voluntary Cleanup Program - NWRO
Washington Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008
Phone: (425) 649-7064
Fax: (425) 649-7098
Email: hvic461@ecy.wa.gov

From: Truchot, Alex (CBRE) [mailto:truchot.a@ghc.org]
Sent: Thursday, April 25, 2013 12:31 PM
To: Vick, Heather (ECY)
Subject: VCP Project 5599

Please see the attached Request of Opinion form for the Renton site. I will put the original in the mail today. Please let me know if you need any additional information.

Thank you,

Alex Truchot, MM, HEM | Group Health Account
Sr. Health, Safety & Environment Manager
CBRE | Global Corporate Services
12501 East Marginal Way South, ASB-1 | Tukwila, WA 98168
T 206 988-2909 | C 206-510-7698
truchot.a@ghc.org | alex.truchot@cbre.com | www.cbre.com
Connect with me on LinkedIn
Follow CBRE: Facebook | @cbre | Google+

ATTACHMENT B

Summary of Groundwater Analytical Data
Former Group Health DSSF
Renton, Washington

Monitoring Well	Sample Date[1]	Volatile Organic Compounds[2] (µg/L)				Gasoline Range Hydrocarbons[3] (µg/L)
		Benzene	Toluene	Ethylbenzene	Xylenes	
MW-10	08/25/99	2.85	0.748	ND	ND	ND
	11/29/99	**5.98**	ND	ND	ND	ND
	02/24/00	**16.9**	ND	ND	ND	52.8
	06/16/00	2.03	ND	ND	ND	ND
	12/06/00	2.32	0.922	ND	1.52	ND
	03/22/01	1.60	ND	ND	ND	ND
	06/28/01	4.54	2.74	ND	ND	**9,110 ***
	09/20/01	**5.37**	ND	ND	ND	**16,400 ***
	12/18/01	**26.2**	ND	ND	ND	**17,100 *** 626 ***
	03/26/02 [6]	**15.3**	0.796	ND	ND	**1,940*** **
	06/19/02	**7.38**	ND	ND	ND	**4,080 ***
	12/11/02	3.26	ND	ND	ND	**2,110 *** 105***
	05/21/04	4.86	ND	ND	ND	**2,860 *** 71.1***
	04/21/05	3.17	ND	ND	ND	ND
	10/19/07	2.05	0.500 U	0.500 U	1.00 U	50.0 U
	01/15/08	1.46	0.500 U	0.500 U	1.00 U	50.0 U
	04/10/08	2.31	0.500 U	0.500 U	1.00 U	50.0 U
	07/29/08	2.48	0.500 U	0.500 U	1.00 U	50.0 U
MW-11	12/17/96	4.60	ND	ND	ND	ND
	07/23/97	4.10	ND	ND	ND	ND
	09/17/98	2.78	6.08	ND	ND	70.7
	08/25/99	3.18	4.03	ND	ND	73.2
	11/29/99	1.8	0.594	ND	ND	119
MW-13	12/17/96	**759**	9.0	24.0	**65.0**	265.0
	07/23/97	**334**	4.0	15.0	**34.0**	200.0
	09/17/98	**65.1**	0.84	2.34	5.94	162.0
	08/25/99	**22.9**	0.83	ND	1.48	61.3
	11/29/99	**61.9**	1.17	2.59	7.47	258.0
	02/24/00	**127.0**	1.40	4.70	10.90	273.0
	06/16/00	**36.3**	ND	0.945	2.66	78.2
	12/06/00	**51.7**	0.854	1.76	4.4	173
	03/22/01	**22.8**	ND	1.29	3.52	84.3
	06/28/01	**16.6**	ND	0.823	2.83	97.5
	09/20/01	**15.1**	ND	0.597	2.59	53.6
	12/18/01	**36.9**	0.673	1.24	5.14	106
	03/26/02 [6]	**21.6**	ND	1.23	5.76	89.8
	06/19/02	NS	NS	NS	NS	NS
	12/11/02	3.2	ND	ND	1.95	ND
	05/21/04	**7.99**	ND	ND	ND	ND
	04/21/05	2.49	ND	ND	1.40	83.1
	10/19/07	--	--	--	--	
	01/15/08	0.500 U	0.500 U	0.500 U	1.20	50.0 U
	04/10/08	3.41	0.500 U	0.500 U	1.00 U	58.1
	07/29/08	7.27	0.500 U	0.500 U	1.00 U	66.6
	10/23/08	5.75	0.500 U	0.500 U	1.00 U	50.0 U
MW-17	12/17/96	1.10	ND	ND	ND	ND
	07/23/97	ND	ND	ND	ND	ND
	10/31/97	ND	ND	ND	ND	ND
	09/17/98	ND	ND	ND	ND	ND
	08/25/99	ND	ND	ND	ND	ND
	11/29/99	ND	ND	ND	ND	ND
2001 MTCA Method A Groundwater Cleanup Level		5.0	1,000	700	1,000	800
Metro Limits		130	1500	1400	NA	100,000

Summary of Groundwater Analytical Data
Former Group Health DSSF
Renton, Washington

Monitoring Well	Sample Date[1]	Volatile Organic Compounds[2] (µg/L)				Gasoline Range Hydrocarbons[3] (µg/L)
		Benzene	Toluene	Ethylbenzene	Xylenes	
MW-20	12/17/96	ND	ND	ND	ND	ND
	07/23/97	ND	ND	ND	ND	ND
	10/31/97	ND	ND	ND	ND	ND
	09/17/98	ND	ND	ND	ND	ND
	08/25/99	ND	ND	ND	2.66	ND
	11/29/99	ND	ND	ND	ND	ND
MW-23	07/23/97	0.50	ND	ND	ND	ND
	10/31/97	ND	ND	ND	ND	ND
	09/17/98	ND	ND	ND	ND	ND
	08/25/99	ND	ND	ND	1.91	ND
	11/29/99	ND	ND	ND	ND	ND
MW-24	07/23/97	ND	ND	ND	ND	ND
	10/31/97	ND	ND	ND	ND	ND
	09/17/98	ND	ND	ND	ND	ND
	08/25/99	ND	ND	ND	ND	ND
	11/29/99	ND	ND	ND	ND	ND
MW-25	07/23/97	3.40	ND	ND	ND	ND
	10/31/97	**113.0**	ND	ND	ND	ND
	09/17/98	**43.7**	ND	ND	ND	61.4
	08/25/99	**35.9**	ND	ND	ND	69.0
	11/29/99	**423.0**	ND	ND	ND	776.0
	02/24/00	**70.9**	ND	ND	ND	127.0
	06/15/00	**107**	ND	ND	ND	179
	12/06/00	**50.8**	ND	ND	ND	95.9
	03/22/01	**49.8**	ND	ND	ND	99.1
	06/28/01	**127**	ND	ND	ND	338
	09/20/01	**30.6**	ND	ND	ND	74.9 **
	12/18/01	**79.3**	ND	ND	ND	159 **
	03/26/02 [6]	0.596	ND	ND	ND	ND
	06/19/02	ND	ND	ND	ND	ND
	12/11/02	**11.3**	ND	ND	ND	ND
	05/21/04	1.04	ND	ND	ND	ND
	04/21/05	ND	ND	ND	ND	ND
	10/19/07	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	01/15/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	04/10/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	07/29/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
MW-26	07/23/97	**1,050**	ND	2.0	3.0	ND
	10/31/97	**3,100**	2.0	7.0	6.0	60.0
	09/17/98	**4,190**	2.81	12.1	16.6	**7,280**
	08/25/99	**243.0**	ND	ND	ND	428.0
	11/29/99	**143.0**	ND	ND	ND	254.0
	02/24/00	**458.0**	ND	0.8	2.0	661.0
	06/15/00	**694**	ND	0.972	2.53	**1070**
	12/06/00	1.07	ND	ND	ND	ND
	03/22/01	ND	ND	ND	ND	ND
	06/28/01	**14.1**	ND	ND	ND	ND
	09/20/01	**12.0**	ND	ND	ND	ND
	12/18/01	**809**	ND	ND	1.2	**1320 ****
	03/26/02 [6]	ND	ND	ND	ND	82.2
	06/19/02	ND	ND	ND	ND	ND
	12/11/02	**13.8**	ND	ND	ND	ND
	05/21/04	3.93	ND	ND	ND	ND
	04/21/05	ND	ND	ND	ND	ND
	10/19/07	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	01/15/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	04/10/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	07/29/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
MW-27	07/23/97	ND	ND	ND	ND	ND
	10/31/97	1.10	ND	ND	ND	ND
	09/17/98	ND	ND	ND	ND	ND
	08/25/99	0.82	ND	ND	ND	ND
	11/29/99	0.544	ND	ND	ND	ND
2001 MTCA Method A Groundwater Cleanup Level		5.0	1,000	700	1,000	800
Metro Limits		130	1500	1400	NA	100,000

Summary of Groundwater Analytical Data
Former Group Health DSSF
Renton, Washington

Monitoring Well	Sample Date[1]	Volatile Organic Compounds[2] (µg/L)				Gasoline Range Hydrocarbons[3] (µg/L)
		Benzene	Toluene	Ethylbenzene	Xylenes	
GWE-1[4]	09/17/98	**5.89**	ND	ND	ND	ND
	02/09/99	**95.9**	ND	0.908	4.66	177
	04/29/99	**1100**	1.25	5.69	**36.2**	875
	02/24/00	**76.3**	ND	ND	2.59	137
	06/15/00	**12.1**	ND	ND	ND	ND
	12/06/00	**209**	3.9	ND	11.6	445
	03/22/01	**65.0**	ND	ND	1.79	140
	06/28/01	**20.9**	ND	ND	1.06	ND
	09/20/01	**13.7**	ND	ND	ND	ND
	12/18/01	**19.2**	ND	ND	1.5	51
	03/26/02 [6]	**34.4**	ND	ND	2.19	86
	06/19/02	**9.85**	ND	ND	ND	ND
	12/11/02	ND	ND	ND	ND	ND
	05/21/04 [7]	ND	ND	ND	ND	ND
	10/19/07	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	01/15/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	04/10/08	0.500 U	0.500 U	0.500 U	1.00 U	50.0 U
	07/29/08	0.82	0.500 U	0.500 U	1.00 U	50.0 U
Discharge[5]	01/08/01	**15**	ND	ND	ND	ND
	04/21/05	ND	ND	ND	ND	ND
2001 MTCA Method A Groundwater Cleanup Level		5.0	1,000	700	1,000	800
Metro Limits		130	1500	1400	NA	100,000

Notes:

MTCA - Model Toxics Control Act

Method A values are reported with the same concentration units as the sample results.

Numbers in **bold** font indicate that the reporting limit exceed the 1996 MTCA Method A groundwater cleanup level.

NA - Not Analyzed.

ND - Not Detected. Sample was analyzed for, but not detected above the reporting limit shown.

NS - Not Sampled. Well was not accessable due to tenant activities inside building.

[1] 12/17/96, 7/23/97, and 10/31/97 sampling rounds were conducted by ATC Environmental. Subsequent sampling rounds were conducted by Dames & Moore / URS.

[2] Analyses performed by using EPA method 8021

[3] Analyses performed by using WA State Method NWTPH-G

[4] GWE-1 groundwater sample from extraction well within former soil excavation.

[5] 2001 and 2005 samples collected from discharge of air stripper

[6] Samples collected using lo-flow sampling methodology

[7] Groundwater extraction pump inoperational prior to sampling

* Result is primarily due to an individual compound (p-isopropyltoluene) eluting in the volatile hydrocarbon range.

** Result is primarily due to an individual compound (benzene) eluting in the volatile hydrocarbon range.

*** Qualitative gasoline range hydrocarbon result after correction for isopropyltoulene.

Table 2
Summary of Soil Analytical Results
Former Group Health DSSF
Renton, Washington

Boring ID	Sample Date	Sample Depth (feet bgs)	Volatile Organic Compounds (ug/kg)				Gasoline Range Hydrocarbons (mg/kg)
			Benzene	Toluene	Ethylbenzene	Xylenes	
B1	5/8/10	3	20 U	50 U	50 U	150 U	5 U
		4	20 U	50 U	50 U	150 U	5 U
B2	5/8/10	3	20 U	50 U	50 U	150 U	5 U
		4	20 U	50 U	50 U	150 U	5 U
B3	5/8/10	4	20 U	50 U	50 U	150 U	5 U
		8	20 U	50 U	50 U	150 U	5 U
B4	5/8/10	7	20 U	50 U	60	160	5.1
		11	20 U	50 U	50 U	150 U	10
B5	5/8/10	7	20 U	50 U	50 U	150 U	5 U
		11	20 U	50 U	50 U	150 U	45
B6	5/8/10	5	20 U	50 U	50 U	150 U	5 U
		11	20 U	50 U	50 U	150 U	5 U
B7	5/8/10	3	20 U	50 U	50 U	150 U	5 U
		10	20 U	50 U	50 U	150 U	5 U
MTCA Method A Soil Cleanup Level			30	7,000	6,000	9,000	30 / 100 [1]

Notes:

Numbers in **bold** font indicate the reported result exceeds the MTCA Method A cleanup level.

Model Toxics Control Act (MTCA) Cleanup Regulation, WAC 173-340. MTCA Method A values are from Ecology website CLARC tables downloaded May 2010. (https://fortress.wa.gov/ecy/clarc/reporting/CLARCReporting.aspx)

U - Compound was analyzed for but not detected above the reporting limit shown.

bgs - below ground surface

[1] The soil cleanup level is 100 mg/kg if benzene is not present and the total of ethylbenzene, toluene, and xylenes is less than 1% of the gasoline mixture.The cleanup level for all other gasoline mixtures is 30 mg/kg.