

**Health & Safety Plan  
for  
Peripheral Area Sampling and Analysis  
Everett Smelter Site  
Everett, Washington**

**prepared for:  
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Toxics Cleanup Program  
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**June 26, 2000**

# **HEALTH & SAFETY PLAN**

## **Peripheral Area Sampling and Analysis Everett Smelter Site Everett, Washington**

**June 26, 2000**

### **1.0 INTRODUCTION**

This plan sets forth the basic procedures required to protect contractor and subcontractor personnel involved in the field phase of this project. It also establishes practices to protect the public and the immediate environment from hazards caused by this work. Contractor personnel and subcontractors are required to review this plan prior to onsite project participation. Subcontractors are further required to verify that the hazard controls contained in this plan are sufficient to protect their employees, and if not, to supplement this plan with additional and sufficient controls. Standard procedures will be used to minimize the potential for personnel injury or illness. These will include site-specific training, routine inspections, visual and instrument surveillance for hazards, and enforcement of the health and safety requirements by project management.

The contractor will collect soil samples at private residences located within the Community Protection Measures (CPM) boundary of the former Everett Smelter Site, for the Washington Department of Ecology. The site is located in north Everett and was formerly the location of a smelting operation which was discontinued in 1912. Smelting activities contaminated the surrounding soil with heavy metal residues. Following cessation of smelter operations, the site was converted to residential use. The site is currently a developed residential area. The primary purpose of the investigation is to characterize soil to the extent necessary to direct soil removal activities.

## 2.0 PROJECT DESCRIPTION

The investigation will involve the following activities:

- Collection of surface and subsurface soil samples from residential yards using a geoprobe or manual methods as conditions permit. Residential yard sampling includes Outside samples, Garden Samples, Landscape samples, and Boundary samples as identified in the Everett Smelter Field Sampling Plan
- Collection of surface soil samples from residential crawl spaces.
- Processing and compositing the soil samples. The methods for sample collection and sample processing/compositing are outlined in the Field Sampling Plan for the Homesite Sampling and Analysis (SAIC, 2000).

## 3.0 ANTICIPATED SITE HAZARDS

### 3.1 Chemical Hazards

Contaminants of concern in the soil located on the site include antimony, arsenic, cadmium, lead, mercury, and thallium. The maximum reported concentrations of arsenic and lead in the sampling vicinity are 4,379 and 3,383 mg/kg, respectively; analytical results for antimony, cadmium, mercury, and thallium are not available. Potential chemical hazards may exist, including particulate inhalation, incidental ingestion, or dermal absorption of these contaminants from soil. No hazardous chemicals are expected to be used during this work. A commercial grade detergent will be used for equipment cleaning, and the applicable MSDS will be maintained on site. Table 3.1 presents exposure limits and hazard summaries for the contaminants of concern.

Alconox will be used as a detergent both on-site and at the processing facility during equipment decontamination. A small amount of the concentrated powder will be added to water to produce a dilute solution of “soapy water”.

**Table 3.1  
Contaminants of Concern**

Contaminants of Concern	Hazard Summary	Exposure Limit
Alconox	<ul style="list-style-type: none"> <li>▪ Skin irritation</li> <li>▪ Eye irritation</li> </ul>	An airborne exposure limit has not been established
Antimony	Acute <ul style="list-style-type: none"> <li>• Metallic taste, nausea, sore throat, irritation of air passages</li> <li>• Irritation of skin, itchy rash</li> <li>• Eye irritation</li> <li>• High Levels may cause congestion of the lungs, irregular heart beat, heart failure</li> </ul>	PEL of 0.5 mg/m <sup>3</sup> over an 8 hour work shift
	Chronic <ul style="list-style-type: none"> <li>• Reproductive hazard</li> <li>• Headache, poor appetite, dry throat, loss of sleep</li> <li>• Damage to the liver and heart</li> </ul>	
Arsenic	Acute <ul style="list-style-type: none"> <li>• Skin burning, itching, and rash</li> <li>• Nose and throat irritation</li> <li>• Eye redness, watering, and irritation</li> <li>• High exposure may cause poor appetite, nausea, vomiting, and muscle cramps</li> <li>• High exposure may cause heart effects</li> </ul>	PEL of 0.01 mg/m <sup>3</sup> over an 8 hour work shift
	Chronic <ul style="list-style-type: none"> <li>• Cancer hazard</li> <li>• Reproductive hazard</li> <li>• Nerve damage</li> <li>• Skin thickening, loss of pigment</li> <li>• Liver damage</li> </ul>	
Cadmium	Acute <ul style="list-style-type: none"> <li>• Flu-like symptoms of chills, headache, aching and fever</li> <li>• Lung damage including shortness of breath, chest pain, cough, and fluid buildup</li> <li>• High exposure may cause nausea, salivation, vomiting, cramps, and diarrhea</li> </ul>	PEL of 0.005 mg/m <sup>3</sup> over an 8 hour work period
	Chronic <ul style="list-style-type: none"> <li>• Cancer hazard</li> <li>• Reproductive hazard</li> <li>• Permanent kidney damage</li> <li>• Emphysema and lung scarring</li> <li>• Anemia, loss of sense of smell, and fatigue</li> </ul>	

Lead	Acute	PEL of 0.05 mg/m <sup>3</sup> over and 8 hour work shift
	<ul style="list-style-type: none"> <li>• High exposure may cause seizures</li> </ul>	
Mercury	Chronic	PEL of 0.1 mg/m <sup>3</sup> over an 8 hour work day
	<ul style="list-style-type: none"> <li>• Reproductive hazard</li> <li>• Tiredness, sleeping difficulties, stomach problems, headaches, and moodiness</li> <li>• High levels may cause aching and weakness in arms and legs, trouble concentrating, and low blood count</li> <li>• Extremely high levels may cause kidney and brain damage</li> </ul>	
Thallium	Acute	PEL of 0.1 mg/m <sup>3</sup> over an 8 hour work day
	<ul style="list-style-type: none"> <li>• Lung irritation, coughing, chest tightness, shortness of breath, and fever</li> </ul>	
	Chronic	
	<ul style="list-style-type: none"> <li>• Reproductive hazard</li> <li>• Mercury poisoning symptoms of tremors, trouble concentrating, sum problems, increase salivation, appetite loss, and mood changes</li> <li>• Skin rash</li> <li>• Kidney damage</li> </ul>	
	Acute	
	<ul style="list-style-type: none"> <li>• Delayed symptoms including tremor, delirium, hallucination, convulsions, coma and death, vision loss, and brain damage</li> </ul>	
	Chronic	
	<ul style="list-style-type: none"> <li>• Reproductive hazard</li> <li>• Fatigue, poor appetite, insomnia, irritability, metallic taste, leg and arm pains, loss of vision, tremor, and brain damage</li> <li>• Hairlessness, nail changes, and dry scaly skin</li> </ul>	

### 3.1.1 Chemical Hazards Associated with Residential Yard Sampling

The potential for overexposure to site contaminants during geoprobe sampling appears to be very low as the ground surface is vegetated and the geoprobe and manual sampling activities do not involve dust generation. In addition, the samples will be extracted from the ground in the geoprobe in tubes which will not be opened in the field.

It is unlikely that site workers will be significantly exposed to contaminants during the Geoprobe sampling operation. Prior monitoring of total airborne dust conducted near Geoprobe operations (SAIC site investigation of the Luckey site, Luckey Ohio, 1998) indicated maximum airborne dust concentrations in the work area of 0.02 mg/m<sup>3</sup>. The majority of measurements made during this work did not indicate detectable concentrations of total airborne dust (detection limit 0.00002 mg/m<sup>3</sup>). These measurements are consistent with visual observation of the Geoprobe technique. The Geoprobe technique involves relatively minimal disturbance of the soil and typically exposes relatively little of the subsurface material. Previous sample results from the Everett site indicate that the maximum concentrations for arsenic and lead encountered during the planned sampling activities will probably be less than 3000 ppm and 3500 ppm respectively. By assuming a soil concentration of 3000 ppm for

arsenic and 3500 ppm for lead, it is possible to project a total airborne dust concentration which might lead to potentially harmful exposure. If the potential adverse effects of arsenic and lead exposure are combined, the projected total airborne dust concentration required to expose workers at one half the exposure limits is 1.43 mg/m<sup>3</sup>. This figure is greater than the previously measured maximum total dust concentrations for Geoprobe operations by a factor of 71.

### **3.1.2 Chemical Hazards Associated with Residential Crawl Space Sampling**

It is expected that the field team will encounter a wide variety of conditions in the residential crawl spaces from visqueen lined to exposed soil. Because any exposed soil is expected to be extremely dry, there is the potential for dust generation while sampling crawl space. To minimize potential exposures to site contaminants, negative pressure air purifying respirators with N-100 (HEPA) filters will be worn while inside all crawl spaces. In addition, the field team may mist the soil with distilled water during sample collection to minimize the generation of dust.

### **3.1.3 Chemical Hazards Associated with Sample Processing**

Sample processing will consist of opening the sample tubes, compositing equal sample volumes on a wet volume bases, and homogenizing the resultant composite sample to ensure analysis of a representative volume. Because the samples will be composited wet, minimal dust generation is expected during this phase of the task. No exposure monitoring will be conducted during this work. Personnel will visually monitor for dust generation and any activity that generates airborne dust will be suspended pending the implementation of adequate controls.

## **3.2 Physical Hazards**

### **3.2.1 Physical Hazards Associated with Residential Yard Sampling**

Potential physical hazards may arise from working with and around machinery. The hazards associated with the geoprobe sampling activities include becoming entangled in hammering machinery, struck with falling geoprobe rod, being struck by a moving vehicle, or crushed or pinched. The rig will be equipped with a positive action control (deadman's switch) or functional kill switches and automatic back-up alarm. Personnel should stay alert and use extra caution when working in the vicinity of heavy machinery. Potential hearing hazards may exist from working around noisy equipment such as the geoprobe rig during hammering and sampling. The use of earplugs or muffs will be required during noisy operations.

A hammer may be used to assist in the manual collection of samples. This activity poses the additional hazards of pinched fingers, hearing damage resulting from noise, and the potential for debris to become airborne. These hazards will be minimized by the use of proper protective gear including the use of heavy-duty gloves, earplugs or muffs, and eye protection.

Potential electrical hazards may exist from contact with the on-site overhead or buried electrical lines. The Field Manager will contact the utility locator services to identify underground utilities; and sampling locations will be selected to avoid both overhead and underground electrical lines.

Slips, trips, and falls are hazards associated with any field activity. Extra caution should be observed when working on sites with potential hazards such as terraced yards or large amounts of debris.

### **3.2.2 Physical Hazards Associated with Crawl Space Sampling**

The physical hazards associated with crawl space sampling are expected to vary from residence to residence. Potential physical hazards include structural and electrical hazards, cramped working conditions, and potential contact with rodents. Crawl space sampling will use the buddy system and samples will be collected in a manner that ensures team members are within eye contact of each other at all times.

Field team members will make a visual surveillance of each crawl space prior to entry. The surveillance will include identification of access and egress points as well as potential structural hazards. If the team feels that their safety would be compromised by the structural integrity of the building or other physical hazard, they will notify the site Health and Safety Officer and delay entry until the safety issue is resolved.

Because it is expected that some crawl spaces will have limited overhead clearance, hardhats will be worn at all times while in the crawl space. In addition, the field team will use extra caution while in a crawl space to minimize potential bumps due to low clearance.

Potential physical hazards resulting from contact with rodents include bites and exposure to Hantavirus Pulmonary Syndrome (HPS). The Center for Disease Control states that HPS is uncommon and the chances of becoming infected are low; however, the seriousness of the disease warrants taking the necessary steps to minimize the potential for infection. HPS is contracted through exposure to rodents, rodent droppings and nests. The flu-like symptoms appear one to six weeks following exposure and the disease progresses very rapidly. Field team members will minimize potential for exposure to the virus causing HPS by avoiding contact with rodents, rodent droppings and rodent nests. Also, negative pressure air purifying respirators with N-100 (HEPA) filters will be worn while inside all crawl spaces.

### **3.2.3 Physical Hazards Associated with Processing Activities**

Processing activities may include hazards associated with working with electrical equipment; heavy lifting; and slips, trips, and falls. Electrical equipment will not be used in areas where exposure to water is likely. All heavy lifting will be accomplished using the "buddy system." Slips, trips, and falls will be minimized by keeping the work area free of debris and water.

#### 4.0 TRAINING REQUIREMENTS

All personnel involved in the soil and groundwater investigation must have 40-hr OSHA HAZWOPER training, including a current 8-hr annual refresher; this requirement includes drilling contractor personnel. Field managers and site safety officers must also have HAZWOPER supervisor training. Personnel involved solely in elevation surveying of wells and piezometers are exempt from this training requirement because they would not be expected to be exposed to hazardous waste. These personnel will not be present during intrusive work and will not access areas not routinely accessible to the residents of the development. A tailgate health and safety briefing will be conducted by the on-site health and safety officer on the first day of intrusive work and whenever the need arises, at the discretion of the health and safety officer. A minimum of one person with first aid and CPR certification will be on-site.

Site specific training will be documented by completion of the Training Attendance Record (QAAP 2.1) or equivalent. Site specific training will include the following:

- a. Names and telephone numbers of personnel and alternates responsible for site health and safety and emergency response;
- b. Site history and review of specific health and safety hazards for various tasks and operations;
- c. Employee health and safety responsibilities;
- d. Review of site zones and decontamination procedures;
- e. Medical surveillance requirements for hazards on-site;
- f. Medical symptoms that may indicate over-exposure to site hazards;
- g. Frequency and types of monitoring to be performed for health and safety hazards;
- h. Equipment calibration procedures to be followed for site monitoring equipment;
- i. Site control measures;
- j. Emergency procedures, response equipment and telephone numbers;
- k. Confined space entry procedures (if required);
- l. Levels of protection and PPE use, storage, and maintenance requirements including respirator use requirements;
- m. Spill containment and hazardous waste management procedures, to be implemented on-site;
- n. Site tour;

- o. Location of HASP and MSDS;
- p. Chain of command;

## **5.0 MEDICAL SURVEILLANCE**

All employees performing or involved in intrusive on-site or sample handling work will be enrolled in a medical surveillance program to meet the requirements of 29 *CFR* 1910.120(f), 1910.134, 1910.20 and SAIC EC&HS Procedures 12 (Medical Surveillance) and 20 (Hazardous Waste) to assess and monitor workers' health and fitness for employment in this field. Documentation of medical clearance will be maintained onsite during the project.

## **6.0 RESPONSIBILITIES**

All project participants, and particularly the field manager and site health and safety officers, have the authority and responsibility to stop work if working conditions are unsafe. The project manager is responsible to ensure that adequate resources are provided to allow the work to be completed safely, the HASP is reviewed by the project manager or the field manager, the HASP is reviewed by a CIH or CSP, and that site health and safety offices are qualified and equipped to perform their duties. The on-site health and safety officers for all sampling activities and the sample processing area will be designated in writing. Backup health and safety officers will be designated in the event that the on-site health and safety officer needs to leave the site temporarily. The on-site and project health and safety officers are responsible for the implementation of this health and safety plan. This implementation includes; performing site-specific training, verifying that all project personnel have documented qualifications, performing daily inspections to verify that project hazards are adequately controlled, and stopping or modifying work if project hazards are not adequately controlled.

## **7.0 PERSONAL PROTECTIVE AND OTHER SAFETY EQUIPMENT**

The use of personal protective equipment (PPE) can eliminate or reduce many of the potential hazards described in Section 3.0.

### **7.1 Residential Yard Sampling**

During geoprobe drilling and soil sampling activities, personnel are required to wear the following PPE:

- Disposable coveralls (e.g., Tyvek<sup>®</sup>) or water-resistant rain gear
- Hardhat (while near the geoprobe rig)
- Safety glasses, goggles, or face shield, depending on the activity, as the need arises
- Safety shoes or boots for work close to the Geoprobe
- Impervious gloves (e.g., nitrile rubber or PVC for sampler, heavy rubberized fabric work gloves for driller and helper)

- Hearing protection (earplugs or muffs), as the condition warrants (during geoprobe hammer and manual hammer operations)
- Heavy duty gloves (manual hammer operations)

The following safety equipment will also be kept available on the sampling site:

- Fire extinguisher (on geoprobe rig during drilling and soil sampling);
- Portable eye wash bottle to facilitate removal of soil particles (during geoprobe drilling, soil sampling);
- Mobile phone (during all field activities if a phone is not available onsite).
- First aid kit

To prevent the spreading of potentially-contaminated soil to vehicles and other off-site locations, soiled non-disposable PPE must first be cleaned of adhering soil or left on site. Soiled disposable PPE must be placed in plastic bags and discarded and will not be worn off the site. This material will be disposed of by placement into the trash receptacle at the Woodinville processing area.

## 7.2 Crawl Space Sampling

Personnel are required to wear the following PPE:

- Disposable coveralls (e.g., Tyvek<sup>®</sup>) or water-resistant rain gear
- Hardhat
- Safety glasses, goggles, or face shield, depending on the activity, as the need arises
- Impervious gloves (e.g., nitrile rubber or PVC )
- Negative pressure air purifying respirator with N-100 filters

The following safety equipment will also be kept available on the sampling site:

- Fire extinguisher ;
- Heavy duty flashlights
- Portable eye wash bottle to facilitate removal of soil particles ;
- Mobile phone (during all field activities if a phone is not available onsite).
- First aid kit

To prevent the spreading of potentially-contaminated soil to vehicles and other off-site locations, soiled non-disposable PPE must first be cleaned of adhering soil or left on site. Soiled disposable PPE must be placed in plastic bags and discarded and will not be worn off the site. This material will be disposed of by placement into the trash receptacle at the Woodinville processing area.

## 7.3 Sample Processing

During the processing activities personnel are required to wear the following PPE:

- Disposable coveralls (e.g., Tyvek<sup>®</sup>)
- Safety glasses, goggles, or face shield, depending on the activity, as the need arises
- Impervious gloves
- Cut resistant gloves (sample cutting operations)

The following safety equipment will be available at the processing site:

- Fire extinguisher
- 15-minute eye wash
- Telephone
- First aid kit

#### **7.4 Respiratory Protection**

The use of respiratory protection for this project will be in accordance with WAC 296-62-071, Respiratory Protection. Specific requirements include the following.

- Site specific training will include refresher training on respirator use and will cover; the process for respirator issuance and maintenance, inspection of respirators, proper use, proper storage, positive and negative fit tests, cartridge change-out, and any other issues the site safety officer determines to be appropriate
- All personnel who use respirators must have current medical clearance for respirator use
- All personnel who use respirators must have a current (within the last 12 months) fit test for the type and size of respirator they are using
- Respirators will be inspected prior to each use
- A positive and negative pressure test will be conducted at the beginning of each use and the respirator must pass these tests prior to entry into hazardous areas
- Respirators will be cleaned after each use and stored in plastic bags or other clean, protected storage

The site safety officer will observe respirator use during daily inspections and verify that respirators are being used properly

## **8.0 SAFE WORK PRACTICES**

### **8.1 Residential Yard Sampling**

The following work practices will minimize physical hazards and potential exposure to toxic compounds during sampling activities and must be followed:

- All geoprobe operations will be performed on relatively level surfaces with the geoprobe rig stabilized
- Except for the geoprobe driller and helper, all personnel will stay away (e.g., 15+ ft) from the geoprobe rig when it is operating unless it is necessary to be near it
- Only experienced personnel will operate the geoprobe rig
- The geoprobe operator will perform a visual safety inspection of the rig at least once a week.
- The geoprobe will only be operated in areas with good ventilation
- Prior to geoprobe drilling, underground utilities will be located and marked using the before-you-dig “one call” system, or talking to the appropriate local utilities; all borings will be located to avoid underground utilities or tanks
- Borings will be located such that the geoprobe rig does not interfere or approach to within 10 feet of overhead electrical lines
- Work will not proceed after dark without adequate lighting (greater than 10 foot candles)
- Work will not proceed in excessively windy (dusty) conditions; if visible dust is noticed the operations will be terminated until conditions change or dust can be minimized
- No smoking or eating is allowed in the exclusion zone or near the geoprobe rig
- Personnel will wash their hands and faces prior to eating or drinking

### **8.2 Crawl Space Sampling**

The following work practices will minimize physical hazards and potential exposure to toxic compounds and must be followed.

- Work will not proceed without adequate lighting
- The field crew will visually inspect each crawl space prior to entry for exposed electrical wiring, inadequate ventilation, snakes, spiders, evidence of chemical storage, rodents or other hazards
- If there is any question about adequate ventilation, the crew will not enter or will provide additional ventilation
- The crew will use a stick, broom or other implement to displace spider webs in their work area to minimize the potential for bites
- The crew will avoid items such as boards that might harbor snakes or spiders
- If exposed (uninsulated) electrical wiring is observed, the crew will not approach this wiring
- The field team will spray the sampling area with distilled water as needed to minimize dust generation

- No smoking or eating is allowed in the exclusion zone or near the geoprobe rig
- Personnel will wash their hands and faces prior to eating or drinking

## **8.2 Sample Processing**

Sample processing will involve cutting the geoprobe cores into depth layers to form discrete samples, splitting each discrete sample into two representative halves, and compositing discrete samples from the same depth layer. Sample processing is described in greater detail in the Field Sampling and Analysis Plan. The following work practices will minimize physical hazards and potential exposure to toxic compounds during sample processing and must be followed:

- Sample handling activities will be conducted to minimize the generation of dust and particulates.
- No smoking or eating is allowed in the processing area
- Personnel will wash their hands and faces prior to eating or drinking
- Sample processing will occur on the work bench in front of the exhaust hood and the exhaust hood will be operating during sample processing and for at least 30 minutes after sample processing if personnel remain in the facility
- The sample tubes will be opened with safety knives (shielded blade or blades) specifically designed for opening the tubes.
- The sample tubes must be anchored in place during cutting so that workers do not have to hold the tubes in place with their hands

## **9.0 SITE CONTROL**

Because sampling will be conducted in the yards of private residences, site control will be imperative during sampling activities. An approximately circular exclusion zone of at least 15 feet will be established around each sampling location. This area will be clearly delineated with caution tape. No unauthorized individuals will be allowed inside this exclusion zone. Contractor personnel will suspend operations if visible barriers or verbal warnings fail to adequately restrict access. The Contractor will ensure that unauthorized personnel do not come in contact with material brought from the subsurface. At the completion of work at each sampling location, that sampling location will be left as close as possible to its original condition. Under no conditions will subsurface (or other potentially contaminated) material will be left exposed or accessible. No borehole or other potentially contaminated or dangerous location will be left exposed overnight.

## **10.0 EMERGENCY CONTACTS AND LOCATION OF HOSPITAL**

### **10.1 Geoprobe and Soil Sampling**

The city of Everett utilizes the familiar “9-1-1” emergency notification system for medical, fire, and police emergencies.

- **MEDICAL EMERGENCY:**       **Dial 9-1-1**
- **FIRE:**                               **Dial 9-1-1**
- **POLICE:**                           **Dial 9-1-1**

The nearest medical clinic to the site is Providence General Medical Center, located about 1 1/2 miles south of the sampling site. The address to the hospital is as follows:

#### **Providence General Medical Center**

**14<sup>th</sup> and Colby**

**Everett, WA**

**(425) 261-2000 (information)**

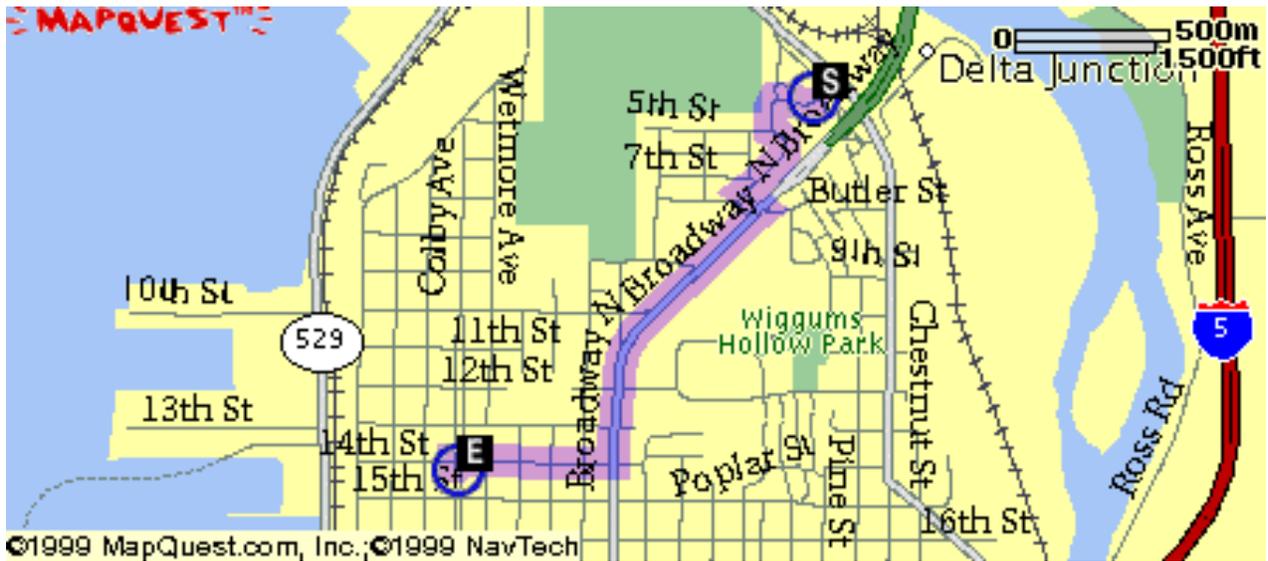
**(425) 261-3000 (emergency)**

Personnel with potentially serious injuries will be transported by ambulance. Only personnel with clearly non-serious injuries (small cuts, strains, etc.) will be transported by SAIC to the hospital.

To reach the hospital from the sampling site see Figure 9.1 and follow the following directions:

- Turn right onto North Broadway and travel southbound approximately 0.7 miles
- Turn right onto Colby and travel approximately 0.3 miles
- The hospital is located at the intersection of 14<sup>th</sup> and Colby

Figure 9.1 Map from the Site to the Hospital



- Legend:
- S Site
  - E Emergency

## 9.2 Sample Processing

The city of Woodinville utilizes the familiar “9-1-1” emergency notification system for medical, fire, and police emergencies.

- **MEDICAL EMERGENCY:** Dial 9-1-1
- **FIRE:** Dial 9-1-1
- **POLICE:** Dial 9-1-1

The nearest hospital to the site is Evergreen Hospital Medical Center, located about 7 miles south of the Woodinville facility. The address to the hospital is as follows:

**Evergreen Hospital Medical Center**  
**12040 NE 128<sup>th</sup> Street**  
**Kirkland, WA**  
**(425) 899-1000 (information)**  
**(425) 899-170 (emergency)**

Personnel with potentially serious injuries will be transported by ambulance. Only personnel with clearly non-serious injuries (small cuts, strains, etc.) will be transported by SAIC to the hospital.

To reach the hospital from the sampling site follow the following directions:

- Go northeast on 142<sup>nd</sup> Ave NE 0.3 miles
- Turn Left onto NE North Woodinville Way 0.3 miles
- NE North Woodinville Way becomes NE 195<sup>th</sup> St. 0.2 miles
- Turn Left to take the WA-522 West ramp 0.2 miles
- Merge onto SR-522 West 1.1 miles
- Take the I-405 South exit towards Bellevue/Renton 0.8 miles
- Merge onto I-405 South 2.8 miles
- Take the NE 124<sup>th</sup> Street exit, exit number 20 0.2 miles
- Turn Left onto NE 124<sup>th</sup> Street 0.5 miles
- Turn Left onto Totem Lake Boulevard 0.6 miles
- Turn Right onto NE 128<sup>th</sup> Street

