PHASE I ENVIRONMENTAL SITE ASSESSMENT

Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

EVERETT FAMILY YMCA

ENVIRONMENTAL
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March 4, 2004 JN 4157-1

Mr. Ted Wenta
Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Subject: **PHASE I ENVIRONMENTAL SITE ASSESSMENT**
Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Dear Mr. Wenta:

Environmental Associates, Inc., has completed a Phase I Environmental Site Assessment of the subject property located in Everett, Washington. This report, prepared in accordance with the terms of our proposal dated January 6, 2004, and in a manner consistent with the intent and methodologies of ASTM E 1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", summarizes our approach to the project along with results and conclusions. This report fully supercedes all previous reports for this property.

The contents of this report are confidential and are intended solely for your use and the use of your representatives. Four (4) copies of this report are being distributed to you. No other distribution or discussion of this report will take place without your prior approval in writing. Additional copies are available for a small fee.

As discussed in appropriate sections of this report, petroleum contaminated soils (PCS) were discovered proximal to a 1,650-gallon underground heating oil tank by other workers (Quest) in July of 1994. In November of 1995, approximately seven (7) tons of PCS were excavated and lawfully removed by Quest from a location proximal the tank fill port. The three (3) soil samples obtained by Quest at the final limits of the excavation did not contain residual concentration of petroleum hydrocarbons. Quest opined that the contaminated soils were a result of overfilling of the tank. According to personnel at the YMCA facility, the tank was closed in place by filling with sand in 1995. Acknowledging that the excavation report prepared by Quest suggests that the contaminated soils were removed from the site, the past release of petroleum hydrocarbons to site soils qualifies as a "recognized environmental condition" as defined by ASTM section 1.1.1.

Non-CERCLA conditions of potential environmental significance identified at the subject site consist of the presence of lead within many of the interior paint finished surfaces and the presence of several types of building materials that are either confirmed to contain asbestos above the 1% regulatory limit by other workers (Quest) or may be suspected to contain asbestos. Although a single sample of the plaster wall material in the 1921-vintage portion of the subject building was sampled and tested by Quest which did not contain asbestos, the single sample that was collected and analyzed may not be representative of the material found at other locations within the building and it is therefore considered by us (EAI) as a "suspect" asbestos containing material. The "suspect" asbestos containing plaster wall and ceiling material located throughout the 1921-vintage portion of the subject building was noted to be significantly damaged by the recent Nisqually earthquake in 2001 at all areas reviewed within the upper third and fourth floors (described as "ghost town" by YMCA staff).

Additional discussions along with common-sense approaches to future management and/or additional evaluation concerning the above-noted conditions are provided for your consideration in the Conclusions/Recommendations section of the attached report.

We appreciate the opportunity to be of service on this assignment. If you have any questions or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,
ENVIRONMENTAL ASSOCIATES, INC.

Don W. Spencer, M.Sc., P.G., R.E.A.
Principal

State of Washington
604
Licensed Geologist
DON W. SPENCER

EPA-Certified Asbestos Inspector/Management Planner
I.D. # AM 48151

EPA/HUD Certified Lead Inspector (Licensed)

Registered Site Assessor/Licensed UST Supervisor
State Certification #0878545-U7

License: 604	(Washington)
License: 11464	(Oregon)
License: 876	(California)
License: 5195	(Illinois)
License: 0327	(Mississippi)

PHASE "1" ENVIRONMENTAL SITE ASSESSMENT

Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Prepared for:

Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Questions regarding this investigation, the conclusions reached and the recommendations given should be addressed to one of the following undersigned.

Wally Hurst for

Jason Cass
Environmental Geologist
EPA-Certified Building Inspector
I.D. #J&J001005-BIB-01
Registered Washington UST Site Assessor #32-US-32024393

Don W. Spencer

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Reference Job Number: JN 4157-1 **March 4, 2004**

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METHODOLOGY/SCOPE OF WORK

Our study approach consisted of completing a series of investigative tasks intended to satisfy the level of effort often referred to as "due diligence" by the "innocent purchaser" in the context of the Superfund Amendment and Reauthorization Act of 1986 (SARA), and nearly identical requirements set forth in the Model Toxics Control Act (MTCA), Chapter 70.105 D (Section 040) RCW pertaining to standards of liability. The objective of a Phase I audit is to minimize potential future liability for environmental problems by demonstrating that at the time of acquisition or refinancing, the owner, buyer, or lender had no knowledge or reason to know that any hazardous substance had been released or disposed of on, in, or at the property. Moreover, in defining the purpose of the Phase I environmental site assessment process, section 1.1.1 of ASTM E-1527 advises that the goal of a Phase I is to identify "recognized environmental conditions," and defines a recognized environmental condition as "the presence or likely presence of any hazardous substance...on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances...into structures on the property or into the ground, groundwater, or surface water of the property."

In an effort to evaluate condition and previous uses of the property in a manner consistent with good commercial and customary practice and in accordance with methods outlined under ASTM E 1527-00, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", our scope of work for this study included:

- Review of chronology of ownership and site history using the resources of the Snohomish County Assessor's Office, business directories from several time periods, and aerial photography from several time periods as primary resources. This included an attempt to identify possible former industries or uses presenting some potential for generating waste which may have included dangerous or hazardous substances as defined by state and federal laws and regulations.

- Acquisition and review of available reports and other documentation pertaining to the subject site or nearby sites.

- Review of Washington Department of Ecology (WDOE) and Snohomish County Department of Public Health documents regarding current and abandoned landfills.

- Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), the EPA National Priority List (NPL), the EPA Resource Conservation and Recovery Act (RCRA) Notifiers, RCRA Corrective Action Report (CORRACTS), and Emergency Response Notification System (ERNS) lists of sites which are potentially contaminated or which produce hazardous substances as a normal part of their commercial operation in the vicinity of the site.

- Review of the current Washington Department of Ecology (WDOE) listing of underground storage tanks (USTs) along with the WDOE's Leaking Underground Storage Tank (LUST) listing for WDOE-documented leaking USTs in the vicinity of the subject property.

- Review of the current WDOE Confirmed and Suspected Contaminated Sites (CSCS) list of potentially contaminated sites which have been the subject of hazardous waste investigation and/or cleanup activity in conjunction with the Washington Model Toxics Control Act (MTCA) Chapter 173-340 WAC.

- Review published documents from the Bonneville Power Administration (BPA) to evaluate the risk for naturally occurring radon.

- A reconnaissance of the subject property (including buildings) and neighboring areas to look for evidence of potential contamination in the form of soil stains, odors, asbestos, lead-based paint (LBP), vegetation stress, discarded drums, discolored water, careless manufacturing or industrial practices, etc.

- Preparation of a summary report which documents the audit process and findings.

FINDINGS

GENERAL DESCRIPTION

The subject property consists of a rectangularly-shaped parcel covering approximately 30,000 square feet of land. Improvements to the property include a three-story building of masonry block construction enclosing approximately 101,000 square feet of space which was reportedly erected in 1921 with additions in 1961 and 1980. Currently the property is occupied by the Everett Family YMCA. The approximate location of the site is shown on the Vicinity Map, Plate 1, appended herewith. The legal description is as follows:

EVERETT PLAT OF BLK 626 D-00 LOTS 17-26 INC 01548-001 EX ST OF WA

The property is located in a commercial area within downtown Everett, Washington. Photographs reflecting the character of the subject property are provided with this report as Plate 3.

A brief description of land use on nearby parcels is provided below. Plate 2, Site Plan, depicts the setting of the subject property and land use for adjacent sites.

North: The Central Lutheran Church is located adjacent to the north of the site with Everett Avenue beyond.

South: California Street defines the southern property boundary with a multi-story parking garage beyond.

East: The Washington National Guard (WNG) Armory and Yukon Trading Company are located across Rockefeller Avenue to the east of the site.

West: A larger office building, a smaller office building occupied by Stewart Title, and a parking lot are located across an alleyway to the west of the site.

According to the City of Everett Zoning Department, the subject property is zoned B-3, a commercial office designation.

PREVIOUS ENVIRONMENTAL WORK

Environmental Associates, Inc. (EAI) presented the findings of a Phase I assessment of the subject property to YMCA of Snohomish County on June 16, 1994. That report identified unknown subsurface environmental conditions proximal to a 1,650 gallon capacity heating oil tank and the presence of thermal insulation and vinyl floor tiles in the 1921-vintage section of the building that were suspected to contain asbestos.

On July 28, 1994, Quality Environmental Services Team, Inc. (Quest) presented the findings of a Limited Site Assessment to YMCA of Snohomish County. Quest made a single boring along with sampling of soils proximal to the heating oil tank previously identified by EAI and conducted limited asbestos sampling and testing. A composite soil sample obtained by Quest from the 2.5 to 12 foot depth range returned a result of 500 parts per million (ppm) petroleum hydrocarbons which exceeded the WDOE Method A cleanup level of 200 ppm in effect at that time. No petroleum hydrocarbons were detected in the sample obtained from the 20 foot maximum depth. The asbestos sampling and testing effort, consisting of collecting and analyzing eleven (11) bulk samples of material, identified chrysotile and amosite asbestos fibers above the 1% regulatory limit within the hydronic thermal insulation and the vinyl floor tile noted earlier by EAI. A single sample of the fireproof ceiling material in the 1980 gym and a single sample of the white plaster of the "ghost city" wall material in the 1921 building did not contain asbestos fibers above the 1% action limit. A copy of the 1994 Quest report is attached herewith as Appendix D.

Quest presented a report summarizing the findings of a soil excavation program report to the YMCA on November 25, 1995. This report documented the removal of approximately seven (7) tons of petroleum contaminated soils (PCS) which were discovered earlier from near the fill port of the heating oil tank. Following the soils excavation and off-site disposal, confirmation sampling at the final limits of the excavation detected no remaining petroleum. The excavation was subsequently backfilled. Quest stated that no groundwater was encountered during the course of their excavation work.

As a footnote, although the 1995 Quest report noted that plans called for the tank to be closed in place, no documentation was contained in that report to confirm that such action was ever performed. In response to our questions on this detail, Mr. Steve Wilson, the YMCA Director of Property/Risk Management advised us that the tank has been filled with sand.

GEOLOGIC SETTING

Physiographically, the site is situated on a gently rolling elevated plain (the Vashon Drift Plain) which was formed during the last period of continental glaciation that ended approximately 13,500 years ago.

Published geologic maps for the site vicinity (Smith, 1976) suggest that much of the material underlying the subject site is glacial till, a dense heterogenous mixture of silt, sand, and gravel. Typically, the till exhibits relatively low vertical hydraulic conductivity which frequently results in formation of a "perched" water table along its upper contact. The "perched" water table (if present) is frequently seasonal and derives recharge primarily from infiltration of precipitation through more permeable overlying soils.

Topographically, the site is situated on a gentle eastward facing slope approximately 118 feet above sea level. Based upon inference from topography and local drainage patterns, it appears that shallow-seated groundwater (if present) in the vicinity of the subject property may flow in an easterly direction.

Although no site specific information has been developed by our firm with respect to depth to groundwater at this site, work by other consultants in the area suggests that groundwater in the vicinity the site may lie at a depth of approximately 100 feet or more beneath the ground surface.

With respect to surface water resources, the Snohomish River is located approximately one (1) mile east of the site. This surface water course flows in a northwesterly direction and eventually discharges into Possession Sound.

DEVELOPMENT HISTORY AND LAND USE

Sources reviewed for information on site and area development and land use included the resources of the Everett Public Library, Snohomish County Assessor's Office, and aerial photographs of the subject property and surrounding area from several time periods.

Aerial photographs of the area were reviewed for the years 1947, 1955, 1967, 1976, 1981, 1985, 1993, and 2002. The following paragraphs provide an interpretive summary of our observations in each photo. The time intervals between the various historic aerial photographs selected for this particular project are, in our opinion, entirely adequate for the intended purpose which was to permit a general assessment of overall development and land use in the vicinity of the subject property.

1947 The 1921-vintage portion of the subject building occupies the southern part of the property with the northern part appearing vacant. Two (2) residences and a church building are located to the north of the site. The existing armory and Yukon Trading Company buildings are visible across Rockefeller Avenue to the east. Commercial buildings are located across California Avenue to the south and across the alleyway to the west of the site.

1955 No significant changes are observed for the subject and surrounding properties with the exception that the present parking lot and smaller commercial building have been developed across the alley to the northeast of the site.

1967 A small addition to the north side of the subject building is visible. A parking lot is visible adjacent to the north with the church building expanded to its present size and configuration beyond. The existing parking garage has replaced the commercial building across California Street to the south of the site.

1976 No visible changes are noted for the subject and adjacent properties.

1981 The existing large 1980-vintage addition has replaced the former parking lot adjacent to the north of the past building configuration. No changes are observed for the surrounding parcels.

1985 to 2002 The subject and surrounding parcels appear much the same as the 1981 photo.

PROPERTY CONVEYANCE/OWNERSHIP DATA

From the file resources of the Snohomish County Assessor's Office and resources of the Everett Public Library the following limited history of ownership has been established:

INSTRUMENT	OWNER	DATE OF PURCHASE
tax parcel #00439162601700		
Assessor records and Sanborn Fire Insurance Maps	YMCA	1901

According to resources available at the Everett Public Library and the Snohomish County Assessor's Office, along with review of aerial photographs, the subject site was developed as early as 1902 with a small building identified on the Sanborn Fire Insurance Map as the YMCA This original building was reportedly heated with an "iron hot air heater". The original building was reportedly replaced with the core of the existing building in 1921 on the southern portion of the site. A 1914 Sanborn map updated to 1950 and 1957 depicts the larger 1921-vintage YMCA building with a gymnasium and auditorium. Following a smaller addition in 1961, the northern portion of the existing building

replaced a parking lot in 1980. Borrowing from the jargon of ASTM, no "reasonably ascertainable" or "likely to be useful" information prior to 1901 was available. The absence of such information has no material effect upon the conclusions of this report.

Reverse street directories reviewed for the years 1910 through 1998 documented that the YMCA has been located on the subject site for that time period

SITE RECONNAISSANCE

An environmental geologist/EPA-certified Asbestos Building Inspector from our firm visited the property on February 24, 2004 to review on-site conditions and land use practices in the surrounding area. Mr. Ted Wenta, the Area Vice President, and Mr. Steve Wilson, Director of Property/Risk Management, provided access to the building and grounds. Representative areas reviewed during our site visit included the interior areas of the subject building, exterior grounds, and adjacent property usages.

As mentioned earlier, the subject property includes a 1921 to 1980-vintage, three-story building of masonry block construction. The roof is flat and built-up in design. Asphalt-paved parking areas are located within the alleyway along the western property line. Currently the building is occupied by the Everett Family YMCA. Typical building materials and/or conditions observed during our site reconnaissance included:

1921-vintage building:

- Floors are either wood or concrete and are covered with ceramic tile, carpet, sheet vinyl, 12-inch square vinyl tile, or 9-inch square vinyl tile. The 12-inch square vinyl tile on the ground floor of the building was reportedly installed during a renovation project in 1998.

- Interior walls throughout the building are painted plaster or concrete. The third and fourth floors of the 1921 building are unoccupied and are informally named "ghost town" by YMCA staff. Significant damage, reportedly resulting from the 2001 Nisqually earthquake, was noted on all of the plaster walls and ceilings on the third and fourth floors.

- Ceilings are painted plaster or painted wood. The suspended cellulose ceiling panels on the ground floor were reportedly installed in 1998.

- Incandescent and fluorescent light fixtures were noted throughout the building.

- Natural gas fired hot water boilers currently provide heating.

- Fiberglass insulation was evident above the fourth floor ceiling of the building.

Mr. Wilson advised us that when they opened the heating oil feed and return lines during maintenance activities that oil poured from the lines onto the basement floor. The spill was reportedly cleaned up and did not extend beyond the basement floor.

1961-vintage building:

- Floors are concrete and are covered with ceramic tile, carpet, sheet vinyl, or wood.
- Interior walls throughout the building are either painted sheetrock or concrete blocks.
- Ceilings are painted drywall, 12-inch glue-on acoustic tiles, or suspended cellulose panels.
- Mercury vapor and fluorescent light fixtures were noted throughout the building.
- Heat is supplied by hot water from the adjacent 1921-vintage section of the building.

We observed a hot water tank and associated piping within the pool mechanical room that was covered with thermal system insulation (TSI) identified by Quest as containing asbestos.

1980-vintage building:

- Floors are concrete covered with ceramic tile, carpet, or natural wood.
- Interior walls throughout the building are painted sheetrock, ceramic tile, or concrete blocks.
- Ceilings are covered with a spray-on fireproofing material in the gymnasium. The locker room ceilings are sheetrock and the lobby ceilings are suspended cellulose panels.
- Mercury vapor and fluorescent light fixtures were noted throughout the building.
- Heat is provided by a natural gas fired hot water system.

According to Mr. Wilson, no hazardous waste is generated on the property in the course of business. In addition, he stated that a 1,650 gallon capacity heating oil tank has been closed in-place within the alleyway to the west. No water wells or groundwater monitoring wells were noted on the property. At the time of our visit, no stains, odors, or unusual vegetation conditions that might otherwise indicate the potential release of hazardous materials were observed on the subject property.

CHECK FOR PCB-CONTAINING MATERIALS

Prior to 1979, polychlorinated biphenyls (PCBs) were widely used in electrical equipment such as transformers, capacitors, switches, fluorescent lights (ballasts) and voltage regulators owing to their excellent cooling properties. In 1976, the EPA initiated regulation of PCBs through issues pursuant to the Toxic Substances Control Act (TSCA). These regulations generally control the use, manufacturing, storage, documentation, and disposal of PCBs. EPA eventually banned PCB use in 1978, and adoption of amendments to TSCA under Public Law 94-469 in 1979 prohibited any further manufacturing of PCBs in the United States.

Light Fixtures We were advised by Mr. Wilson that the fluorescent light fixtures present in the subject building were installed in 1996, which is long after the above-referenced ban on the use of PCBs. On that basis, it is our opinion that no PCB-containing ballasts are located within the subject building.

Main Service Electrical Transformers No pad-mounted or pole-mounted electrical transformers were noted on the site.

CHECK FOR ASBESTOS-CONTAINING MATERIALS

During our site review, five (5) types of materials that were either suspected or confirmed to contain asbestos were observed within the subject building. These materials included a ceiling/wall plaster, 9-inch square vinyl tile, thermal pipe insulation and wrapping, sheet vinyl flooring and mastic, and acoustic ceiling tile mastic. At the time of this writing we were not authorized by the client to sample or test the suspect materials to confirm or deny this presumption. A summary of the suspect and/or confirmed asbestos containing materials is provided in the table below:

MATERIAL	LOCATION	CONDITION[1]	APPROXIMATE SQUARE FOOTAGE
Thermal system insulation and wrapping (confirmed)	1921 basement boiler room, 1961 hot water tank room, 1921 3rd floor bathroom	good except damaged insulation on 3rd floor bathroom	400 linear feet
9-inch square vinyl tile & mastic (confirmed)	all floors throughout 1921 building	good	12,000
ceiling/wall plaster (suspected)	throughout 1921 building	significant damage on 3rd & 4th floors	throughout 1921-vintage section
Acoustic ceiling tile mastic (suspected)	1921 building 3rd floor ceiling	good	2,000
Sheet vinyl flooring (suspected)	stairs of 1921 building	good	200

Note: 1 - Material condition was evaluated borrowing criteria adopted under the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR, part 763.

As noted in the Previous Environmental Work section of this report, Quest collected and tested a single sample of the plaster wall material in the "ghost town" section of the 1921 building which did not return a positive result for asbestos content. As previously stated, it is our (EAI) opinion that a single sample of the plaster wall material may not be sufficient to reliably characterize the material and that AHERA sampling protocols would require at least seven (7) samples of that quantity (over 5,000 square feet) of material showing negative results to confirm a non-asbestos designation. On that basis, we have included the plaster material as "suspected" to contain asbestos and have documented that the material is in very poor condition on the third and fourth floors. Our effort regarding identification of asbestos-containing materials within the subject building was a preliminary review and not an asbestos survey. Since no destructive sampling was authorized for this audit, materials not readily accessible such as roofing materials and/or materials obscured behind, beneath, or within walls or existing flooring materials were not reviewed.

REVIEW FOR LEAD-BASED PAINT

Lead was formerly a common additive to many paints to improve their durability and coverage. Lead-based paint presents a special hazard to small children who can ingest it by chewing on painted woodwork or eating flakes of paint. A number of studies showing the toxic effects of lead on humans, and on small children in particular, prompted the Consumer Product Safety Commission to mandate in 1977 that the amount of lead in most paints, including those for residential use, should not exceed 0.06 %.

A review of interior painted surfaces on the subject property was conducted to assess the potential for lead-content in surface layers of paint. Representative painted surfaces (listed in the table below) were analyzed using "Lead-Check" sodium rhodizonate color reagent paint tests. These tests provide a qualitative indication as to whether lead is present in paint samples with reproducible results to a lower detection limit of 0.5 percent, a level corresponding to a threshold of concern established by HUD.

PAINTED SURFACE	RESULT
1921 building first floor north kitchen wall	**positive**
1921 building stairwell base	negative
1921 building 2nd floor closet door	negative
1921 building 3rd floor wall	**positive**
1921 building 4th floor southeast corner window sill	**positive**

As noted in the table above, three (3) of the surfaces tested using the "Lead Check" screening method showed a reddish hue response characteristic of the sodium rhodizonate method as an indication of the likely presence of lead in the painted surfaces. On that basis, we conclude that lead was likely present in the surfaces which tested positive.

RADON EVALUATION

Occurrence

Radon is a naturally occurring, highly mobile, chemically inert radioactive gas created through radioactive decay of uranium and thorium. The potential for occurrence of radon varies widely and is dependent upon (1) the concentration of radioactive materials in the underlying bedrock; (2) the relative permeability of soils with respect to gases; and (3) the amount of fracturing or faulting in surficial materials (EPA, 1987).

Health Risks

The concern regarding radon and its potential effects upon humans arises from the results of studies (EPA, 1987) which suggest that approximately fifteen percent of all lung cancer mortalities in the United States may be attributable to exposure to radon.

The EPA has established a concentration of radon of four (4) picocuries per liter (pCi/l) as a maximum permissible concentration "action level". Concentrations above this value would signal a potential health threat. According to some studies, an average concentration in homes across the United States is on the order of 1.4 pCi/l.

Risk of Potential Exposure in the Everett Area

The Bonneville Power Administration (BPA) recently published the results of measurements for radon made in residences throughout the region they serve which includes Washington, Oregon and Idaho. For the Everett area in the immediate vicinity of the subject property 713 tests have been performed. The results of their work (BPA, 1993) suggest that radon levels over 4 pCi/l were detected in none of the monitored residences in the vicinity of the subject site. Additionally, the average listed radon reading in the subject site township was 0.28 pCi/l, well below the EPA threshold of concern.

On the basis of the findings presented in the cited BPA survey, we conclude that the potential for exposure to naturally occurring radon exceeding the EPA "action level" at the subject site is very low.

WATER SUPPLY, WASTE WATER AND SOLID WASTE MANAGEMENT

Information supplied by the Public Works Department of the City of Everett revealed that water and sewer services are provided by the City of Everett.

One (1) solid waste dumpster located on concrete was noted at the northwest corner of the property. The dumpster, which is maintained by Rubatino Disposal, was relatively clean and free of overflowing debris at the time of our site reconnaissance.

REVIEW OF WASHINGTON DOE LISTING OF UNDERGROUND STORAGE TANKS

Review of the current Washington Department of Ecology listing of underground storage tanks (USTs) suggests that twenty two (22) facilities with registered USTs are located within a one-quarter mile radius of the subject property. Information regarding these USTs and their status is provided in Appendix A, Environmental Database Report. Such UST listings may not include tanks that are exempted from regulation such as heating oil tanks or tanks used for agricultural purposes and may not include USTs which were installed prior to the advent of modern environmental UST regulations.

According to the most recent WDOE Leaking Underground Storage Tank (LUST) listing, twenty-eight (28) tank facilities located within an approximately one-half mile radius of the subject property have reported accidental releases or leakage to the WDOE in the past. The LUST sites within a one-half mile radius of the subject property are listed in Appendix A, Environmental Database Report. The nearest of these is:

- YMCA of Snohomish County located at 2720 Rockefeller Avenue, **the subject property**, is a site of soil contamination by petroleum products. WDOE lists the cleanup status of this facility as "reported cleaned up". As noted earlier in this report, Quest removed approximately seven (7) tons of soil which had been impacted by oil from tank filling operations in 1995. The 1,650 gallon capacity heating oil tank was reportedly closed in place by filling with sand. Mr. Ted Wenta with the YMCA provided documentation concerning the closure of this UST. We reviewed the WDOE file and the file did not contain any additional information.

The approximate locations of the WDOE-documented underground storage tanks within a one-quarter mile radius and leaking underground storage tanks within a one-half mile radius of the subject property are indicated on the vicinity map attached to this report in Appendix A, Environmental Database Report.

EPA & STATE RECORDS OF POTENTIALLY HAZARDOUS SITES

Superfund and NPL

Review of the current EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and National Priority List (NPL) listings revealed no CERCLIS sites within a one-half mile radius and no NPL sites within approximately one mile of the subject property that have been designated as potentially hazardous or eligible for participation in the Superfund cleanup program.

CORRACTS

Review of the current EPA Corrective Action Report (CORRACTS) listing revealed that no CORRACTS sites are located within approximately one mile of the subject property that have been designated as having a potential release at the property under RCRA.

MTCA/ CSCSL

The Washington Department of Ecology hazardous waste cleanup and investigation program was launched in 1989 as a part of the Model Toxics Control Act (MTCA), Chapter 173-340 WAC, in order to evaluate potential and actual hazards at sites within the state. Of the more than 1,730 sites currently on the confirmed and suspected contaminated sites listing (CSCSL), thirty-two (32) are located within a one mile radius of the subject property. The MTCA/CSCSL sites within a one mile radius of the subject property are listed individually in Appendix A, Environmental Database Report.

The nearest MTCA/CSCSL site to the subject property is Children's Museum, located at 1502 Wall Street. This location is approximately one quarter of a mile to the south of the subject site in an inferred cross-gradient hydrologic position.

Acknowledging the substantial separation distances and/or hydrologic positions of the listed MTCA/CSCSL sites in relation to the subject property as positive risk-mitigating factors, it is our opinion that the potential for environmental impairment of the subject property from these off-site facilities is very low. The approximate locations of the WDOE-documented MTCA sites within a one mile radius of the subject property are indicated on the vicinity map attached to this report in Appendix A, Environmental Database Report.

RCRA/ TSDs

Review of EPA's Treatment, Storage and Disposal (TSD) facilities listing for sites that treat, store, or dispose of potentially hazardous materials revealed that no TSD sites are located within a one mile radius of the subject property.

Review of the EPA's RCRA Generators listing and RCRA Non-regulated Generators listing, revealed six (6) sites within a one-quarter mile radius of the subject property which are regularly monitored by EPA/WDOE for the use or generation of small amounts of hazardous substances as a normal part of their business activities. Three (3) non-regulated generators were identified within a one-eight mile radius. The sites located within a one-quarter mile radius of the subject site are listed in Appendix A, Environmental Database Report.

Businesses named in the RCRA Generators listing and RCRA Non-regulated Generators listing are users or generators of potentially hazardous or toxic materials as a normal aspect of their business practices. Listed businesses are required to closely monitor and report their use or generation of such materials to the EPA.

Based upon this information, upon the monitoring and reporting requirements imposed by the EPA, and upon the presumption that the listed user/generators exercise prudence in management of these materials to minimize liability and EPA penalties, it is our opinion that the potential for environmental impairment of the subject property from these off-site facilities is very low.

ERNS Review of the EPA's Emergency Response Notification Systems (ERNS) list for the State of Washington revealed that the subject site has not reported a spill. This list has been compiled with periodic updates since October 1987.

LANDFILLS

A review of WDOE and Snohomish County Health Department documents regarding current and abandoned landfills revealed that there are no documented landfills located within a mile radius of the subject property.

CONCLUSIONS/RECOMMENDATIONS

Consistent with report language requirements specified under ASTM E-1527-2000 entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," and more specifically section 11.7.1 thereto, the following conclusory statements are made.

We (EAI) have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527 of the Everett Family YMCA located at 2720 Rockefeller Avenue in Everett, Washington. No exceptions to, or deletions from, this practice were made. This assessment has revealed no evidence of recognized environmental conditions in connection with the property with the exception of the following:

As discussed earlier in this report, following the discovery of heating oil impacted soils in 1994 by other workers (Quest), they removed approximately seven (7) tons of petroleum contaminated soils from the site in 1995. They (Quest) opined that the source of the contamination was from filling practices associated with the 1,650 gallon capacity heating oil tank. Confirmation sampling at the final limits of the excavation did not reveal remaining concentrations of petroleum. In response to this release, WDOE has placed the subject property on the leaking underground storage tank (LUST) database. This past release of petroleum to site soils appears to qualify as a "recognized environmental condition" as defined by ASTM section 1.1.1.

Perceived Mitigating Factors which reduce contemporary concerns regarding this aspect of site history from an ownership an/or lending perspective include the following:

(1) The contaminated soil (ultimately approximately 7 tons) discovered by others (Quest) in 1994 in proximity to the 1,650 gallon capacity heating oil tank was lawfully excavated and disposed of.

(2) As discussed above, analysis of confirmation soil samples from the limits of that cleanup excavation confirmed that residual concentrations of petroleum/heating oil were compliant with cleanup standards in effect today as well as at that time.

(3) No groundwater was reportedly encountered by Quest in the cleanup excavation.

(4 At the end of the cleanup activities, the tank was reportedly filled with inert, non-flammable material and left in place.

In summary, the available information suggests that the known problem (recognized environmental condition) discussed above first identified in 1994 was addressed at that time. As such, it is our (EAI) opinion that if the findings contained in the previous report(s) were disclosed to the Washington Department of Ecology (WDOE), it seems unlikely that the WDOE would impose a requirement for additional studies or cleanup actions upon the property owner, lender(s), or other involved parties. In that context, based on the information available to us today, Environmental Associates, Inc. (EAI) would have no basis for recommendations for additional evaluations of this nature at this time.

As a footnote, if desired by the site owner, the property may qualify for a determination of "no further action" (NFA) from the WDOE through the Voluntary Cleanup Program (VCP). This may be accomplished by submitting all relevant reports and a $500 application review fee to WDOE. If desired by the client, EAI can provide additional assistance, such as regulatory liaison and form submittal, throughout the VCP application process.

Non-CERCLA conditions of potential environmental significance identified at the subject site consist of the presence lead as a component of several interior paint finished surfaces and the presence of several types of materials that are either suspected or confirmed to contain asbestos. As discussed in the Check for Asbestos Containing Materials section of this report, the plaster wall and ceiling material throughout the third and fourth floors of the 1921-vintage section of the subject building have been significantly damaged by the 2001 Nisqually Earthquake. Guidance for these issues is provided in the following individual report sections.

ASBESTOS

As noted earlier in this report, the plaster wall and ceiling material throughout the 1921 building is suspected to contain asbestos and is significantly damaged on the third and fourth floors (noted as "ghost town"). Access to the third and fourth floors of the 1921-vintage section of building should be completely restricted until such time that either adequate sampling and testing (i.e. at least seven (7) samples) demonstrating non-asbestos content is performed or the material is either removed or encapsulated. Borrowing evaluation criteria adopted under the Asbestos Health Emergency Response Act (AHERA, 40 CFR Part 763), the other "suspect" and confirmed asbestos containing materials enumerated earlier are in "good" condition. In the current use and condition, these other materials pose no threat to public health or to the environment.

To reduce exposure to potential future liability, and in an effort to comply with regulations regarding the presence of asbestos in commercial buildings under Chapter 296-62-07753 WAC, it may be prudent to consider implementation of a management policy (Operations and Maintenance Program/O&M) whereby all maintenance, repair, or service personnel who may be engaged to work on the property are formally advised (i.e., signed acknowledgment) as to the presence of asbestos-containing materials (ACM) prior to commencement of any work associated with the ACM.

As it is our understanding that the owner intends to renovate portions of the structure containing asbestos, please note that applicable sections of WAC 296-65 require that all projects relating to construction, demolition, repair, or maintenance where release or likely release of asbestos fibers into the air could occur must be performed by "certified asbestos workers". Additional information may be obtained through the offices of Environmental Associates, Inc., or directly from the Washington State Department of Labor and Industries, P.O. Box 207, Olympia, Washington 98504. Finally, if future representative sampling and laboratory testing of these "suspect" plaster and sheet vinyl materials were to confirm that they do not contain asbestos, these recommendations may then logically be disregarded for those materials.

LEAD-BASED PAINT

As discussed earlier, a positive qualitative reaction suggesting the likely presence of lead was observed during "Lead Check" testing of the painted wall and window sill surfaces within the 1921-vintage section of the building. On the basis of the positive indications, we conclude that lead is most likely present in those areas, and could conceivably be in other areas as well. All interior painted surfaces were in good to fair condition. Additional sampling and testing would be required to quantify the concentration of lead and the extent of the lead-bearing paint.

As it is fairly common knowledge that lead-based paint was widely used in structures built prior to 1977/1978, this finding is not remarkable.

As with asbestos, workers who may have cause to disturb suspect lead-bearing surfaces in future activities as renovation, demolition, etc., should be formally advised of these findings so that they may take appropriate precautions in terms of exposure. Special handling and disposal requirements may apply in the event that lead-bearing painted surfaces are disturbed, removed, or demolished at this facility.

With the endorsement of the Lead Based Paint Hazard Reduction Act, Title 10, came the need for special care on the part of landlords, consultants, and others who may become involved with lead-bearing structures to minimize potential health hazards as well as legal liabilities. Appendix C to this report provides an informational pamphlet which may be useful in gaining familiarity with concerns and practices relating to lead. Additional information and guidance may be obtained directly from Environmental Associates, Inc., or from EPA.

LIMITATIONS

This report has been prepared for the exclusive use of Everett Family YMCA and their several representatives for specific application to this site. Our work for this project was conducted in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our proposal dated January 6, 2004. Conclusions and opinions offered here pertaining to subsurface conditions rely solely upon results of sampling and testing conducted by others at separated sampling localities and conditions may vary between sampling localities or at other locations or depths. The environmental condition of subsurface soil and/or groundwater cannot typically be determined by visual examination of surficial conditions such as afforded by the scope of a Phase I audit such as performed here. Acknowledging that limitation, no warranty in that regard is made. No other warranty, expressed or implied, is made. If new information is developed in future site work which may include excavations, borings, studies, etc., Environmental Associates, Inc., must be retained to reevaluate the conclusions of this report and to provide amendments as required.

The level of effort regarding identification of potential ACM should be considered a reconnaissance, should not be confused with an asbestos survey, and should not be used as a sole informational resource for removal, construction, or abatement bidding purposes.

REFERENCES

GENERAL

Bonneville Power Administration (BPA), January 1993, Radon Monitoring Results from BPA's Residential Conservation Program, Report No. 15, (with April 1993 Map).

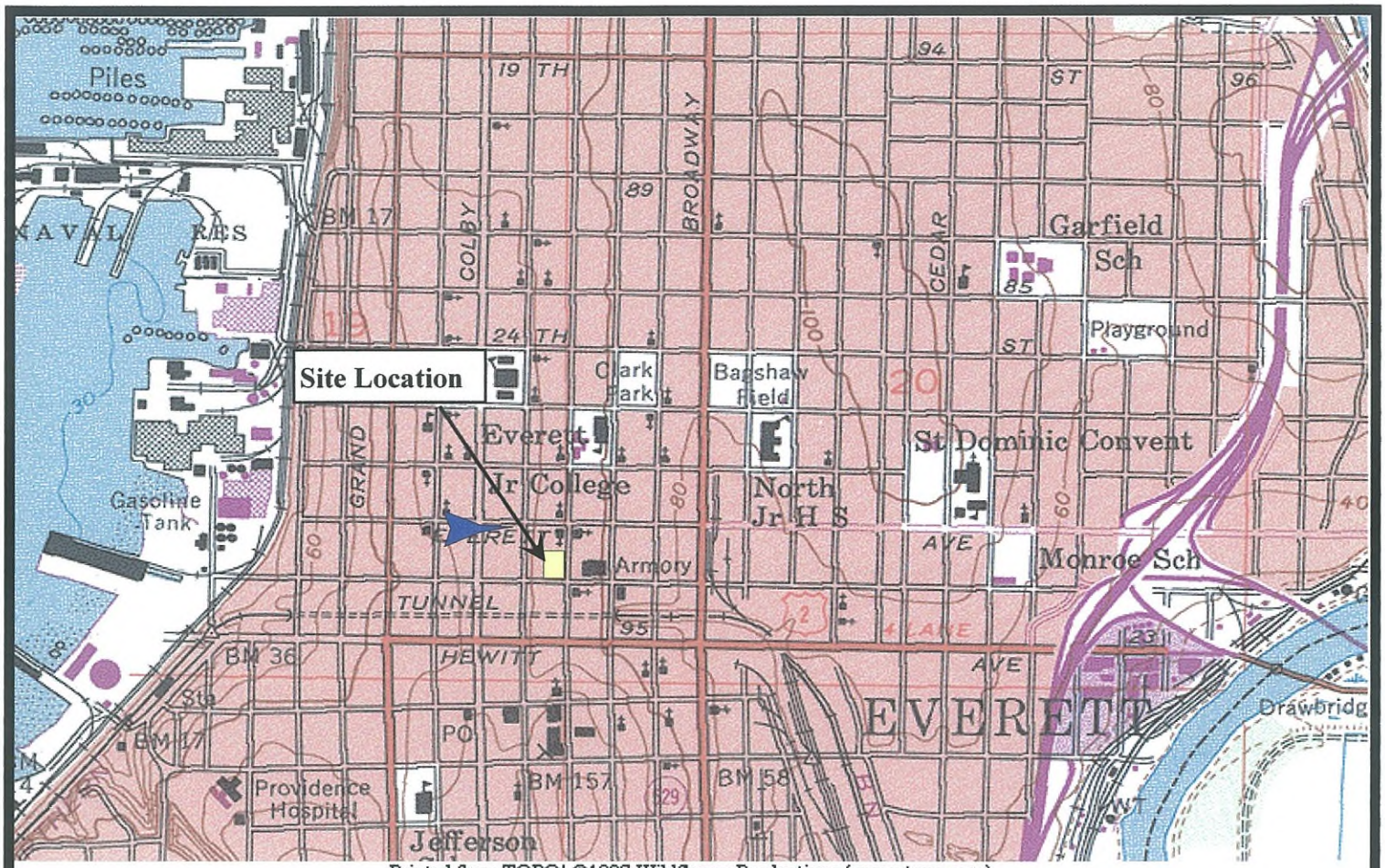
Environmental Protection Agency (EPA), September 1987, Radon Reference Manual EPA 520/1-87-20.

Smith, Mackey, 1976, Preliminary Surficial Geologic Map of the Everett Quadrangle, Snohomish County, Washington, 1 sheet.

Thomas Brothers Map Co., 2000, The Thomas Guide: King/Pierce/Snohomish Counties.

U.S. EPA, April 1994. Reducing Lead Hazards When Remodeling Your Home. EPA 747-R-94-002. 20 pps.

U.S. Geological Survey, 1953, Everett, Washington, 1:24,000 Quadrangle. Photorevised 1968 and 1973, 1 sheet.



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Scale

0 — *1/2* — *1 mile*

Inferred Shallow-Seated Groundwater Flow

Site Location

N

Contour Interval 20 Feet

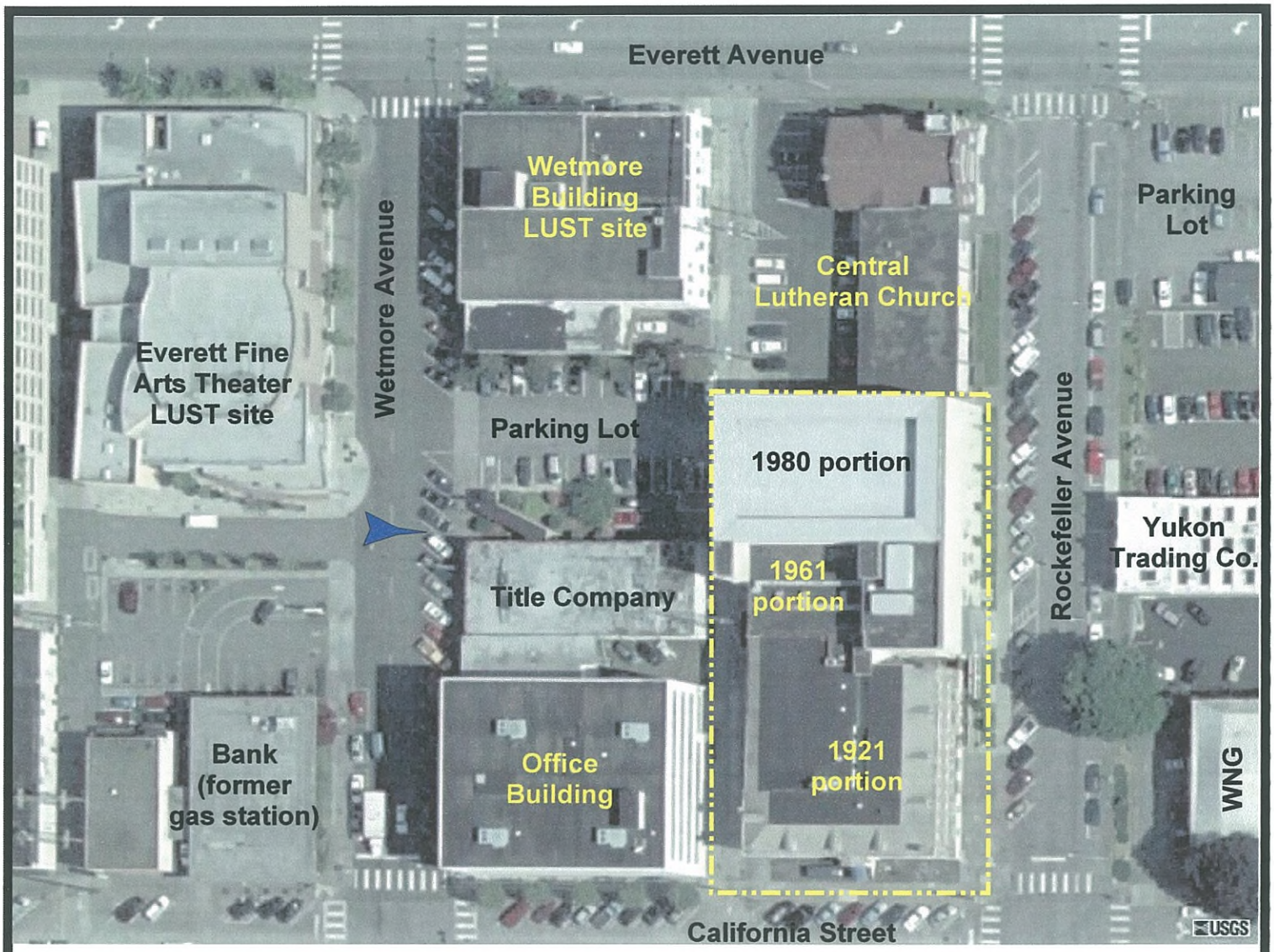
ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

Vicinity Map

Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Job Number:	*Date:*		*Plate:*
JN 4157-1	March 2004		1



Probable direction of shallow-seated groundwater flow

Approximate limits of subject property.

N

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste. 300
Bellevue, Washington 98004

SITE PLAN

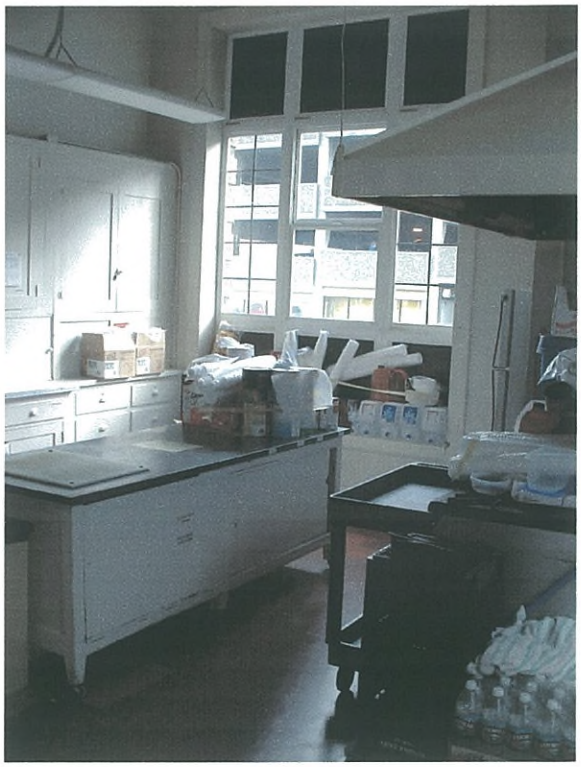
Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Job Number:	*Date:*		*Plate:*
JN 4157-1	March 2004		2

View of subject property looking northwest.

View of subject property looking southwest

Damaged Plaster in a Sleeping Room



Old Kitchen

ENVIRONMENTAL ASSOCIATES, INC.

1380 - 112th Avenue N.E., Ste.300
Bellevue, Washington 98004

SITE PHOTOGRAPHS

Everett Family YMCA
2720 Rockefeller Avenue
Everett, Washington 98201

Job Number:	*Date:*		*Plate:*
JN 4157-1	March 2004		3

APPENDIX A

Environmental Database Report

TARGET PROPERTY:

2720 ROCKEFELLER AVE

EVERETT WA 98201

Job Number: JN 4157-1

Environmental Associates, Inc.

1380 112th Avenue Northeast, Suite 300

Bellevue, Washington 98004

02-16-04

Search Summary Report

Target Site: 2720 ROCKEFELLER AVE
EVERETT WA 98201

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	12-08-03	1.00	0	0	0	0	0	0	0
CERCLIS	Y	12-08-03	0.50	0	0	0	0	-	0	0
NFRAP	Y	12-08-03	0.12	0	0	-	-	-	0	0
RCRA TSD	Y	09-09-03	1.00	0	0	0	0	0	0	0
RCRA COR	Y	09-09-03	1.00	0	0	0	0	0	0	0
RCRA GEN	Y	09-09-03	0.25	0	2	4	-	-	0	6
RCRA NLR	Y	09-09-03	0.12	0	3	-	-	-	0	3
ERNS	Y	12-31-03	0.12	0	0	-	-	-	0	0
State Sites	Y	01-14-04	1.00	0	0	1	9	22	0	32
SWL	Y	11-01-01	0.50	0	0	0	0	-	0	0
REG UST/AST	Y	01-14-04	0.25	1	9	12	-	-	0	22
Leaking UST	Y	01-14-04	0.50	1	4	4	19	-	0	28
- TOTALS -				2	18	21	28	22	0	91

Site Information Report

Request Date: 02-16-04
Requestor Name: Jason Cass
Standard: ASTM

Search Type: COORD
Job Number: JN 4157-1

TARGET ADDRESS: 2720 ROCKEFELLER AVE
EVERETT WA 98201

Demographics

Sites:	91	**Non-Geocoded:**	0	**Population:**	NA
Radon:	-0.3 - 1.4 PCI/L				

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-122.206138	-122:12:22	**Easting:**	559241.662
Latitude:	47.981248	47:58:52	**Northing:**	5314302.06
			Zone:	10

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 0 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Topographical Maps	No	
City Directories	No	
Title Search	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

TARGET SITE: 2720 ROCKEFELLER AVE
EVERETT WA 98201

JOB: JN 4157-1

TOTAL: 91 **GEOCODED:** 91 **NON GEOCODED:** 0 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
80	LUST	YMCA OF SNOHOMISH COUNTY (EXEMPT) 200114/REPORTED CLEANED UP	2720 ROCKEFELLER AVE EVERETT WA	0.02 NE	72
66	LUST	EVERETT CONSTRUCTION (2080-B01) 12286/REPORTED CLEANED UP	2701 WETMORE EVERETT WA 98201	0.06 NW	55
89	LUST	EVERETT FINE ARTS THEATRE 101830/REPORTED CLEANED UP	2700 WESTMORE AVE EVERETT WA 98201	0.07 NW	79
62	LUST	CITY OF EVERETT FIRE STATION #2 (OL 5727/REPORTED CLEANED UP	2801 OAKES AVE EVERETT WA 98201	0.10 SE	50
63	LUST	CITY OF EVERETT FIRE STATION HQ 459340/REPORTED CLEANED UP	2811 OAKES AVE EVERETT WA	0.10 SE	2
74	LUST	O L WOOD MOTOR COMPANY INC 100545/REPORTED CLEANED UP	2629 LOMBARD STREET EVERETT WA 98201	0.19 NE	60
57	LUST	ANDERSON PROPERTY (OLD BULK) 200389/REPORTED CLEANED UP	2805 BROADWAY EVERETT WA	0.22 SE	67
60	LUST	CHEVRON 90963 5068/REPORTED CLEANED UP	2630 BROADWAY EVERETT WA 98201	0.23 NE	47
64	LUST	EVERETT CITY LIBRARY 200855/REPORTED CLEANED UP	2701 RUCKER AVE EVERETT WA	0.25 NW	68
61	LUST	CITY OF EVERETT 11928/REPORTED CLEANED UP	2702 RUCKER AVE. EVERETT WA 98201	0.26 NW	49
76	LUST	SNOHOMISH COUNTY 753/REPORTED CLEANED UP	3000 OAKES EVERETT WA 98201	0.26 SE	63
79	LUST	UNOCAL 1806 8414/REPORTED CLEANED UP	2102 HEWITT AVE EVERETT WA 98201	0.26 SE	15
77	LUST	SNOHOMISH COUNTY COURTHOUSE 97678/REPORTED CLEANED UP	1810 WALL ST EVERETT WA 98201	0.26 SW	71
58	LUST	APOKA PLAZA INC (CURRENT OWNER) 9228/REPORTED CLEANED UP	2915 BROADWAY EVERETT WA 98201	0.27 SE	45
67	LUST	EVERETT FEDERAL BUILDING (FORMER) (519298/REPORTED CLEANED UP	3002 COLBY ST EVERETT WA 98201	0.27 SW	56
56	LUST	ANABEL FRAMING 102153/REPORTED CLEANED UP	2531 BROADWAY SNOHOMISH WA 98201	0.28 NE	7
70	LUST	HOTEL MONTE CRISTO (EXEMPT) 200750/AWAITING CLEANUP	1507 WALL ST EVERETT WA	0.30 SW	10
59	LUST	C&E TRUCKS/PARTS 97415/REPORTED CLEANED UP	2130 WALL EVERETT WA 98201	0.33 SE	46
78	LUST	THE SOUTHLAND CORP. 2331-25054 8635/REPORTED CLEANED UP	1611 PACIFIC AVE EVERETT WA 98201	0.34 SW	65
75	LUST	P U D #1 OF SNOHOMISH COUNTY 8875/REPORTED CLEANED UP	2320 CALIFORNIA ST EVERETT WA 98201	0.36 SE	61
73	LUST	NORTH CASCADES BUILDING MAT LS 200359/REPORTED CLEANED UP	2202 WALL ST EVERETT WA	0.37 SE	11

Environmental FirstSearch
Sites Summary Report

TARGET SITE: 2720 ROCKEFELLER AVE
EVERETT WA 98201

JOB: JN 4157-1

TOTAL: 91 **GEOCODED:** 91 **NON GEOCODED:** 0 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
72	LUST	MOTOR TRUCKS INC 6027/CLEANUP STARTED	2920 GRAND AVE EVERETT WA 98201	0.37 SW	59
68	LUST	EVERETT SCHOOL DIST N MIDDLE 200643/REPORTED CLEANED UP	2514 RAINIER AVE EVERETT WA	0.40 NE	69
71	LUST	KIDD PROPERTY 200623/CLEANUP STARTED	2815 VIRGINIA AVE EVERETT WA	0.41 SE	70
91	LUST	HOGLAND TRANSFER TRUCK SHOP 1197/REPORTED CLEANED UP	31 PAINE STREET EVERETT WA 98201	0.42 SE	81
65	LUST	EVERETT CITY STREET DEPT SHOP SITE 319059/CLEANUP STARTED	3120 MCDOUGALL AVE EVERETT WA 98201	0.44 SE	22
69	LUST	FANCY STAMPS (EXEMPT) 368811/AWAITING CLEANUP	2421 HEWITT EVERETT WA	0.45 SE	35
90	LUST	H & Y LIMITED PARTNERSHIP 101646/REPORTED CLEANED UP	3200 & RUCKER AVE EVERETT WA 98201	0.49 SW	80
1	RCRAGN	EDS TRANSMISSION SERVICE INC WA0000062729/VGN	1811 EVERETT AVE EVERETT WA 98201	0.05 NE	1
2	RCRAGN	EVERETT FIRE DEPT WAD988508339/VGN	2811 OAKES AVE EVERETT WA 98201	0.10 SE	2
3	RCRAGN	RUBATINO REFUSE REMOVAL INC WAD043453257/TR	2812 HOYT AVE EVERETT WA 98201	0.19 SW	3
6	RCRAGN	TECH SVCS INC DBA EVERETT TIRE & AU WAD135561124/VGN	2828 HOYT AVE EVERETT WA 98201	0.20 SW	6
4	RCRAGN	S & M AUTO SUPPLY WAD057306185/VGN	2718 BROADWAY EVERETT WA 98201	0.21 NE	4
5	RCRAGN	SNOHOMISH CNTY COURTHOUSE GARAGE WAD988506937/VGN	3000 OAKES AVE EVERETT WA 98201	0.25 SE	5
7	RCRANLR	GOODYEAR AUTO SVC CTR 8852 EVE WAD135558906/NLR	2802 ROCKEFELLER EVERETT WA 98201	0.06 SE	9
9	RCRANLR	PORT GARDNER PARTNERS JDH GROUP EVE WA0000248328/NLR	2802 WETMORE AVE EVERETT WA 98201	0.08 SW	14
8	RCRANLR	PATHOLOGY ASSOCIATES OF EVERETT WAD061681839/NLR	1912 EVERETT AVE EVERETT WA 98201	0.10 NE	13
81	STATE	CHILDRENS MUSEUM CSCR:8913245	1502 WALL ST EVERETT WA 98201	0.25 SW	73
17	STATE	EVERETT SCHOOL DIST 2 MAIN NFA:12945256	2715 MCDOUGAL ST EVERETT WA 98201	0.29 NE	8
20	STATE	FISHER TRUST PROPERTY CSCR:263046	2931 RUCKER AVE EVERETT WA 98201	0.29 SW	27
84	STATE	SNOHOMISH COUNTY CAMPUS CSCR:5777211	3000 ROCKEFELLER EVERETT WA 98201	0.31 SE	76

Environmental FirstSearch
Sites Summary Report

TARGET SITE: 2720 ROCKEFELLER AVE
EVERETT WA 98201

JOB: JN 4157-1

TOTAL: 91 **GEOCODED:** 91 **NON GEOCODED:** 0 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
11	STATE	BP SERVICE STATION 03165 NFA:2847	3027 BROADWAY AVE EVERETT WA 98201	0.33 SE	18
83	STATE	SNOHOMISH CNTY UNDERGROUND GARAGE & CSCR:7061078	OAKES AVE & PACIFIC AVE EVERETT WA 98201	0.35 SE	75
16	STATE	EVERETT PLATING CSCR:2798	2413 HEWITT AVE EVERETT WA 98201	0.44 SE	24
15	STATE	EVERETT PLATING CSCR:2799	2411 HEWITT AVE EVERETT WA 98201	0.44 SE	23
28	STATE	PACIFIC PLATING CSCR:20511	2421 HEWITT AV EVERETT WA 98201	0.45 SE	35
26	STATE	ODAY PETROLEUM C CSCR:93274628	3211 SMITH AVE EVERETT WA 98201	0.49 SE	33
34	STATE	SEG 23RD LLC CSCR:5914159	2201 BROADWAY EVERETT WA 98201	0.51 NE	41
22	STATE	MILLER AMERICAN CSCR:2848	2717 FEDERAL AV EVERETT WA 98201	0.51 SW	29
23	STATE	MOBIL OIL EVERET CSCR:2728	2731 FEDERAL AV EVERETT WA 98201	0.51 SW	30
21	STATE	HOGLAND TRANSFER CSCR:8811371	3221 PAINE AVE EVERETT WA 98201	0.52 SE	28
31	STATE	ROLLINS LEASING CORP BR 109 A CSCR:29548842	3225 MCDOUGALL AVE EVERETT WA 98201	0.52 SE	38
27	STATE	OLYMPIC FOREIGN CSCR:2727	2947 FULTON ST EVERETT WA 98201	0.54 SE	34
12	STATE	DUR NEL PROPERTY CSCR:32799931	3102 HILL ST EVERETT WA 98206	0.56 SE	19
24	STATE	NELSON DISTRIBUT CSCR:2808	3102 HILL AV EVERETT WA 98201	0.56 SE	31
18	STATE	EVERETT STEEL CO CSCR:2805	3126 HILL ST EVERETT WA 98206	0.58 SE	25
32	STATE	SATHER MFG CO INC CSCR:75732461	3330 MCDOUGALL AVE EVERETT WA 98201	0.61 SE	39
33	STATE	SEA DOG CORPORAT CSCR:35112631	SMITH AVE & 33RD EVERETT WA 98201	0.64 SE	40
14	STATE	EVERETT CITY OF BOND STREET CSCR:96863992	BOND ST & KROMER AVE EVERETT WA 98201	0.64 SW	21
82	STATE	EAST WATERWAY CSCR:2733	HEWIT AVE EVERETT WA 98201	0.65 NW	74
10	STATE	ALL NIGHT AIR SWEEP CSCR:67541366	3326 SMITH AVE EVERETT WA 98201	0.66 SE	17

Environmental FirstSearch
Sites Summary Report

TARGET SITE: 2720 ROCKEFELLER AVE
EVERETT WA 98201

JOB: JN 4157-1

TOTAL: 91 **GEOCODED:** 91 **NON GEOCODED:** 0 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
13	STATE	EVERETT CITY MOR CSCR:2807	3225 CEDAR ST EVERETT WA 98201	0.71 SE	20
19	STATE	EVERETT STEEL CO CSCR:2806	2720 34TH ST EVERETT WA 98201	0.80 SE	26
30	STATE	QUAKER STATE MINIT LUBE 1504 CSCR:68725182	3601 BROADWAY EVERETT WA 98201	0.81 SE	37
35	STATE	T CLYDE PITCHER JR CSCR:14757989	2202 36TH ST EVERETT WA 98201	0.83 SE	42
85	STATE	US NAVY STATION CSCR:2776	2000 W MARINE VI EVERETT WA 98201	0.86 NW	77
36	STATE	WA DOT PARCEL 1-911 EBEY SLOUGH CSCR:8626812	IMMEDIATELY SOUTH OF 2814 HIGH EVERETT WA 98201	0.90 SE	43
29	STATE	PRIME EQUIPMENT CSCR:11536592	2810 HIGHLAND AV EVERETT WA 98201	0.91 SE	36
25	STATE	NELSON DISTRIBUT CSCR:2782	2815 HIGHLAND AV EVERETT WA 98201	0.97 SE	32
55	UST	YMCA OF SNOHOMISH COUNTY (EXEMPT) 200114/EXEMPT	2720 ROCKEFELLER AVE EVERETT WA 98201	0.04 NW	66
46	UST	EVERETT CONSTRUCTION (2080-B01) 12286/REMOVED	2701 WETMORE EVERETT WA 98201	0.06 NW	55
86	UST	EVERETT FINE ARTS THEATRE 101830/REMOVED	2700 WESTMORE AVE EVERETT WA 98201	0.07 NW	79
87	UST	EVERETT WA LINE SEG 50 PRINTS 460-4 9415/REMOVED	MP.37 2ND SUB PACIFIC DIV EVERETT WA	0.07 NW	79
39	UST	CHRIS LOKEN & CO INC 7522/REMOVED	2807 ROCKEFELLER EVERETT WA 98201	0.07 SE	48
43	UST	CRESCENT SERVICE TIRE COMPANY 10824/TEMPORARILY CLOSED	1919 EVERETT AVE EVERETT WA 98201	0.10 NE	52
40	UST	CITY OF EVERETT FIRE STATION #2 (OL 5727/EXEMPT	2801 OAKES AVE EVERETT WA 98201	0.10 SE	50
41	UST	CITY OF EVERETT FIRE STATION HQ 459340/REMOVED	2811 OAKES AVE EVERETT WA	0.10 SE	2
45	UST	EVERETT CENTRAL OFFICE (2081-B01) 12287/REMOVED	2604 ROCKEFELLER EVERETT WA 98201	0.12 NE	54
52	UST	SITE SE02 EVERETT 100623/REMOVED	2614 WETMORE AVENUE EVERETT WA 98201	0.12 NW	62
42	UST	CITY OF EVERETT ROW 583931/REMOVED	2625 COLBY AVE EVERETT WA 98201	0.16 NW	51
48	UST	EVERETT TRADES BUILDING ASSOCIATION 1737/EXEMPT	2812 LOMBARD AVE. EVERETT WA 98201	0.16 SE	57

Environmental FirstSearch
Sites Summary Report

TARGET SITE: 2720 ROCKEFELLER AVE
EVERETT WA 98201

JOB: JN 4157-1

TOTAL: 91 **GEOCODED:** 91 **NON GEOCODED:** 0 **SELECTED:** 0

ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
37	UST	ANDERSON PROPERTY (OLD BULK) 200389/REMOVED	2805 BROADWAY EVERETT WA 98201	0.17 SE	44
47	UST	EVERETT TOLL 07113 9969/CLOSED IN PLACE	2619 LOMBARD EVERETT WA 98201	0.18 NE	16
54	UST	STEVE SAUNDERS 102175/REMOVED	2701 HOYT AVENUE EVERETT WA 98201	0.18 NW	12
51	UST	O L WOOD MOTOR COMPANY INC 100545/REMOVED	2629 LOMBARD STREET EVERETT WA 98201	0.19 NE	60
49	UST	FORMERLY GOODYEAR DEALER 9302/CLOSURE IN PROCESS	2828 HOYT AVE EVERETT WA 98201	0.20 SW	6
44	UST	E S D MAINTENANCE ANNEX FACILITY 493902/REMOVED	2715 MCDOUGAL AVE EVERETT WA 98201	0.22 NE	53
38	UST	CHEVRON 90963 5068/REMOVED	2630 BROADWAY EVERETT WA 98201	0.23 NE	47
88	UST	WOODS MOTORS SITE (EXEMPT) 200371/EXEMPT	2600 BLOCK BROADWAY EVERETT WA 98201	0.23 NE	78
50	UST	MARYATT INDUSTRIES 11290/CLOSED IN PLACE	2939 LOMBARD STREET EVERETT WA 982013	0.23 SE	58
53	UST	SNOHOMISH COUNTY COURTHOUSE 97678/REMOVED	1810 WALL ST EVERETT WA 98201	0.25 SE	64

Environmental FirstSearch
Federal Databases and Sources

ASTM Databases:

CERCLIS: ***Comprehensive Environmental Response Compensation and Liability Information System.*** The EPA's database of current and potential Superfund sites currently or previously under investigation. Source: Environmental Protection Agency.

Updated quarterly.

CERCLIS-NFRAP (Archive): ***Comprehensive Environmental Response Compensation and Liability Information System Archived Sites.*** The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Updated quarterly.

ERNS: ***Emergency Response Notification System.*** The EPA's database of emergency response actions. Source: Environmental Protection Agency. Data since January, 2001, has been received from the National Response Center as the EPA no longer maintains this data.

Updated quarterly.

FINDS: ***The Facility Index System.*** The EPA's Index of identification numbers associated with a property or facility which the EPA has investigated or has been made aware of in conjunction with various regulatory programs. Each record indicates the EPA office that may have files on the site or facility. Source: Environmental Protection Agency.

Updated semi-annually.

NPL: ***National Priority List.*** The EPA's list of confirmed or proposed Superfund sites. Source: Environmental Protection Agency.

Updated quarterly.

RCRIS: ***Resource Conservation and Recovery Information System.*** The EPA's database of registered hazardous waste generators and treatment, storage and disposal facilities. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List). Source: Environmental Protection Agency.

RCRA TSD: ***Resource Conservation and Recovery Information System Treatment, Storage, and Disposal Facilities.*** The EPA's database of RCRIS sites which treat, store, dispose, or incinerate hazardous waste. This information is also reported in the standard RCRIS detailed data.

ASTM Databases (continued):

RCRA COR: ***Resource Conservation and Recovery Information System Corrective Action Sites.*** The EPA's database of RCRIS sites with reported corrective action. This information is also reported in the standard RCRIS detailed data.

RCRA GEN: ***Resource Conservation and Recovery Information System Large and Small Quantity Generators.*** The EPA's database of RCRIS sites that create more than 100kg of hazardous waste per month or meet other RCRA requirements. Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List).

RCRA NLR: ***Resource Conservation and Recovery Information System sites No Longer Regulated.*** The EPA's database of RCRIS sites that create less than 100kg of hazardous waste per month or do not meet other RCRA requirements.

All RCRA databases are Updated quarterly

Environmental FirstSearch
Federal Databases and Sources

Non-ASTM Databases:

HMIRS: ***Hazardous Materials Incident Response System.*** This database contains information from the US Department of Transportation regarding materials, packaging, and a description of events for tracked incidents.

Updated quarterly.

NCDB: ***National Compliance Database.*** The National Compliance Data Base System (NCDB) tracks regional compliance and enforcement activity and manages the Pesticides and Toxic Substances Compliance and Enforcement program at a national level. The system tracks all compliance monitoring and enforcement activities from the time an inspector conducts and inspection until the time the inspector closes or the case settles the enforcement action. NCDB is the national repository of the 10 regional and Headquarters FIFRA/TSCA Tracking System (FTTS). Data collected in the regional FTTS is transferred to NCDB to support the need for monitoring national performance of regional programs.

Updated quarterly

NPDES: ***National Pollution Discharge Elimination System.*** The EPA's database of all permitted facilities receiving and discharging effluents. Source: Environmental Protection Agency.

Updated semi-annually.

NRDB: ***National Radon Database.*** The NRDB was created by the EPA to distribute information regarding the EPA/State Residential Radon Surveys and the National Residential Radon Survey. The data is presented by zipcode in Environmental FirstSearch Reports. Source: National Technical Information Service (NTIS)

Updated Periodically

Nuclear: The Nuclear Regulatory Commission's (NRC) list of permitted nuclear facilities.

Updated Periodically

PADS: PCB Activity Database System
The EPA's database PCB handlers (generators, transporters, storers and/or disposers) that are required to notify the EPA, the rules being similar to RCRA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

Updated semi-annually.

Receptors: 1995 TIGER census listing of schools and hospitals that may house individuals deemed sensitive to environmental discharges due to their fragile immune systems.

Updated Periodically

Non-ASTM Databases (continued):

RELEASES: ***Air and Surface Water Releases.*** A subset of the EPA's ERNS database which have impacted only air or surface water.

Updated semi-annually.

Soils: This database includes the State Soil Geographic (STATSGO) data for the conterminous United States. It contains information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding. Source: United States Geographical Survey (USGS).

Updated quarterly

TRIS: ***Toxic Release Inventory System.*** The EPA's database of all facilities that have had or may be prone to toxic material releases. Source: Environmental Protection Agency.

Updated semi-annually.

Environmental First Search
Washington Databases and Sources

Note: For further information regarding a specific site recorded by the Washington Department of Ecology or to review the physical agency files, call the regional office in closest proximity to the property you are concerned with. A listing of the regional offices and phone numbers are listed on the bottom of this source description.

ST: CONFIRMED & SUSPECTED CONTAMINATED SITES REPORT

Source: The Washington Department of Ecology, Toxics Cleanup Program

Within 90 days of learning of a potentially contaminated site, the Dept. of Ecology conducts and initial investigation of each site. If the initial investigation shows that further action is needed, the site will appear in the Confirmed & Suspect3ed Contaminated Sites (CSCS) Report. Once remedial action has been completed, the Toxics Cleanup Program's management determines the removal of a site from the CSCS Report. The Hazardous Sites List is a subset of the CSCA Report. It contains those sites that have been ranked using the Washington Ranking Method.

The WARM BIN # indicates the outcome of the Washington Ranking Model (WARM). The WARM BIN Number will be a number between 0 and 5.

LUST: LEAKING UNDERGROUND STORAGE TANKS

Source: The Washington Department of Ecology

UST: UNDERGROUND STORAGE TANKS)

Source: The Washington Department of Ecology

SW: SOLID WASTE LANDFILLS

Source: The Washington Department of Ecology

The Solid Waste Facility Database contains disposal information for landfills and incinerators. The types of facilities that are included are those that are permitted under chapter 173-304 WAC, Minimum Functional Standards for Solid Waste Handling and chapter 173-351 WAC, Criteria for Municipal Solid Waste Landfills.

WASHINGTON DEPARTMENT OF ECOLOGY REGIONAL OFFICES

NORTHWEST REGION: (425) 647-7000 **CENTRAL REGION:** (509) 575-2490

SOUTHWEST REGION: (360) 407-6300 EASTERN REGION: **(509) 456-2926**

WASHINGTON DEPARTMENT OF ECOLOGY HEADQUARTERS

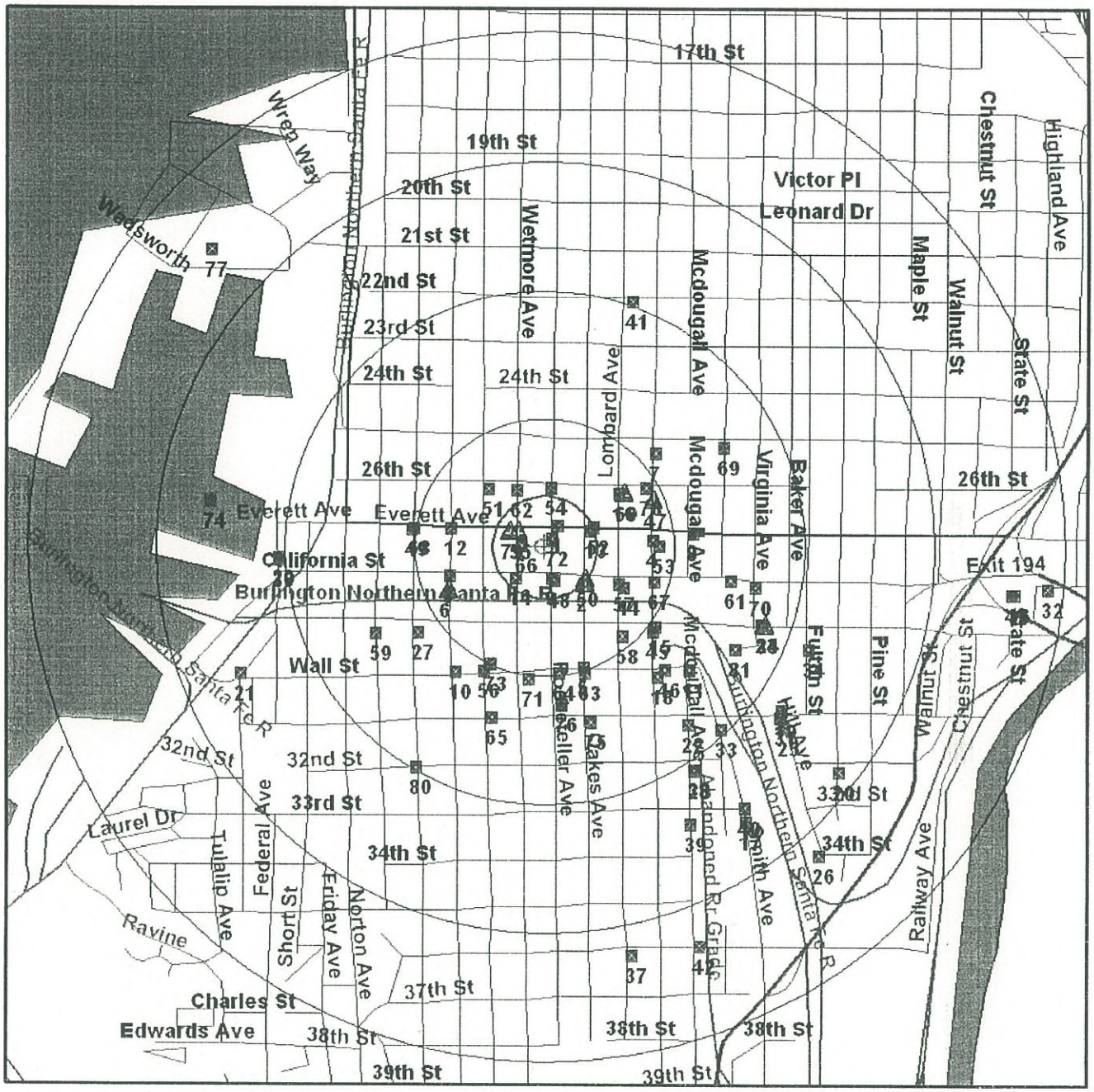
360) 407-6112

Environmental FirstSearch

1 Mile Radius

ASTM: All Databases

2720 ROCKEFELLER AVE, EVERETT WA 98201



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 47.981248 Longitude: -122.206138) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

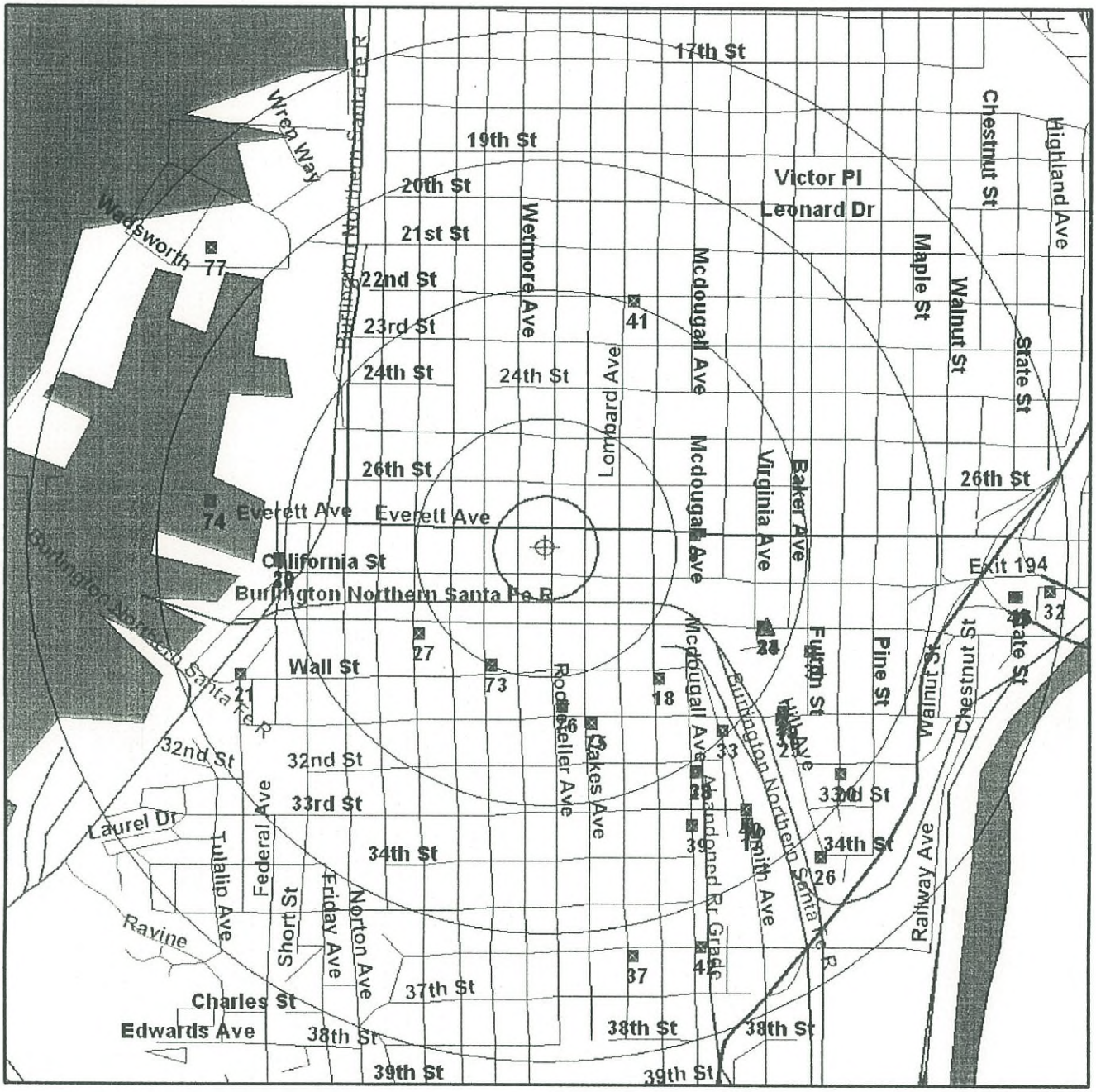
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

1 Mile Radius

ASTM: NPL, RCRACOR, STATE, RCRATSD

2720 ROCKEFELLER AVE, EVERETT WA 98201



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 47.981248 Longitude: -122.206138) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.5 Mile Radius

ASTM: CERCLIS, LUST, SWL

2720 ROCKEFELLER AVE, EVERETT WA 98201

Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 47.981248 Longitude: -122.206138) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

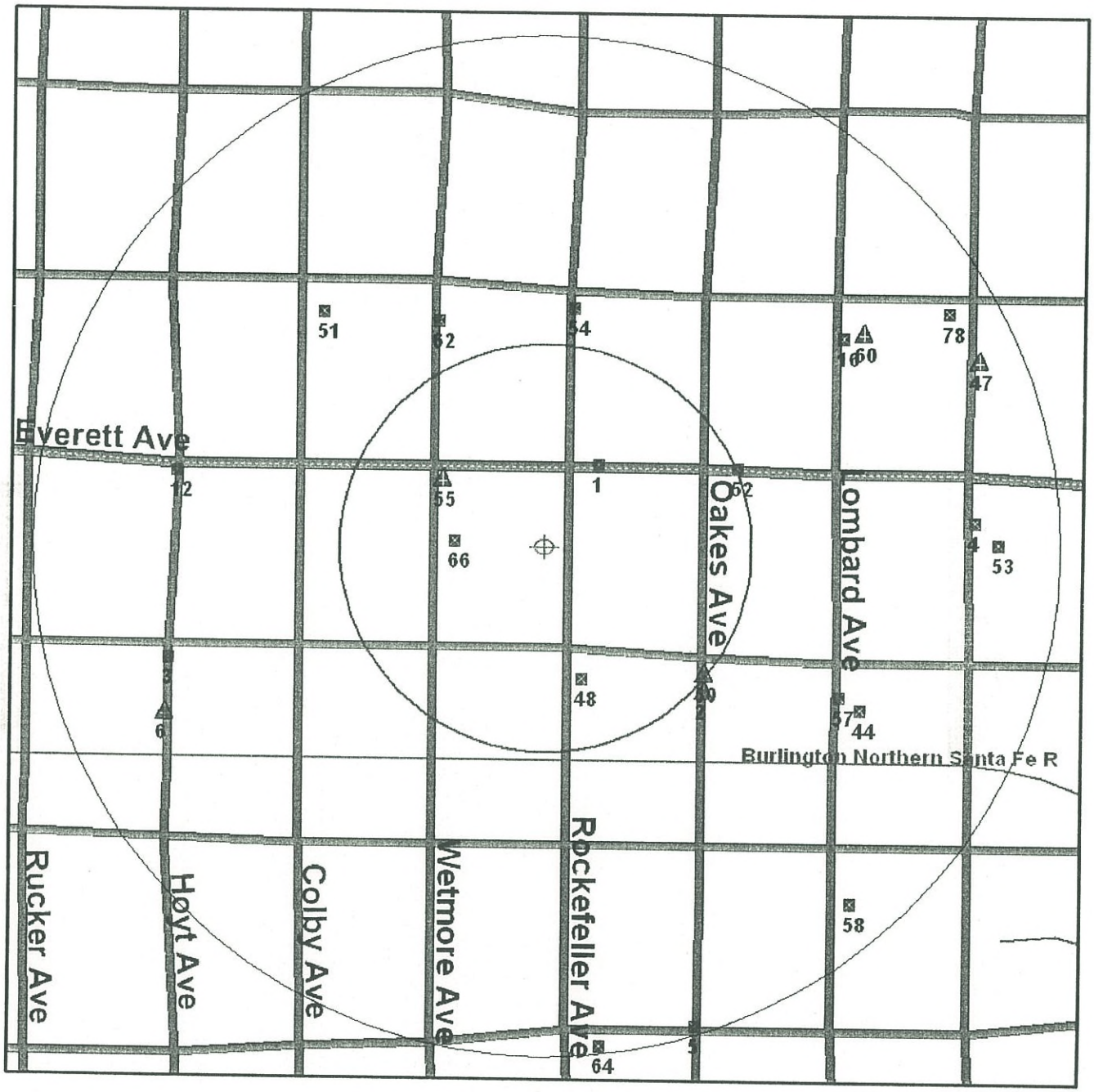
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.25 Mile Radius

ASTM: RCRAGEN, UST

2720 ROCKEFELLER AVE, EVERETT WA 98201



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 47.981248 Longitude: -122.206138) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

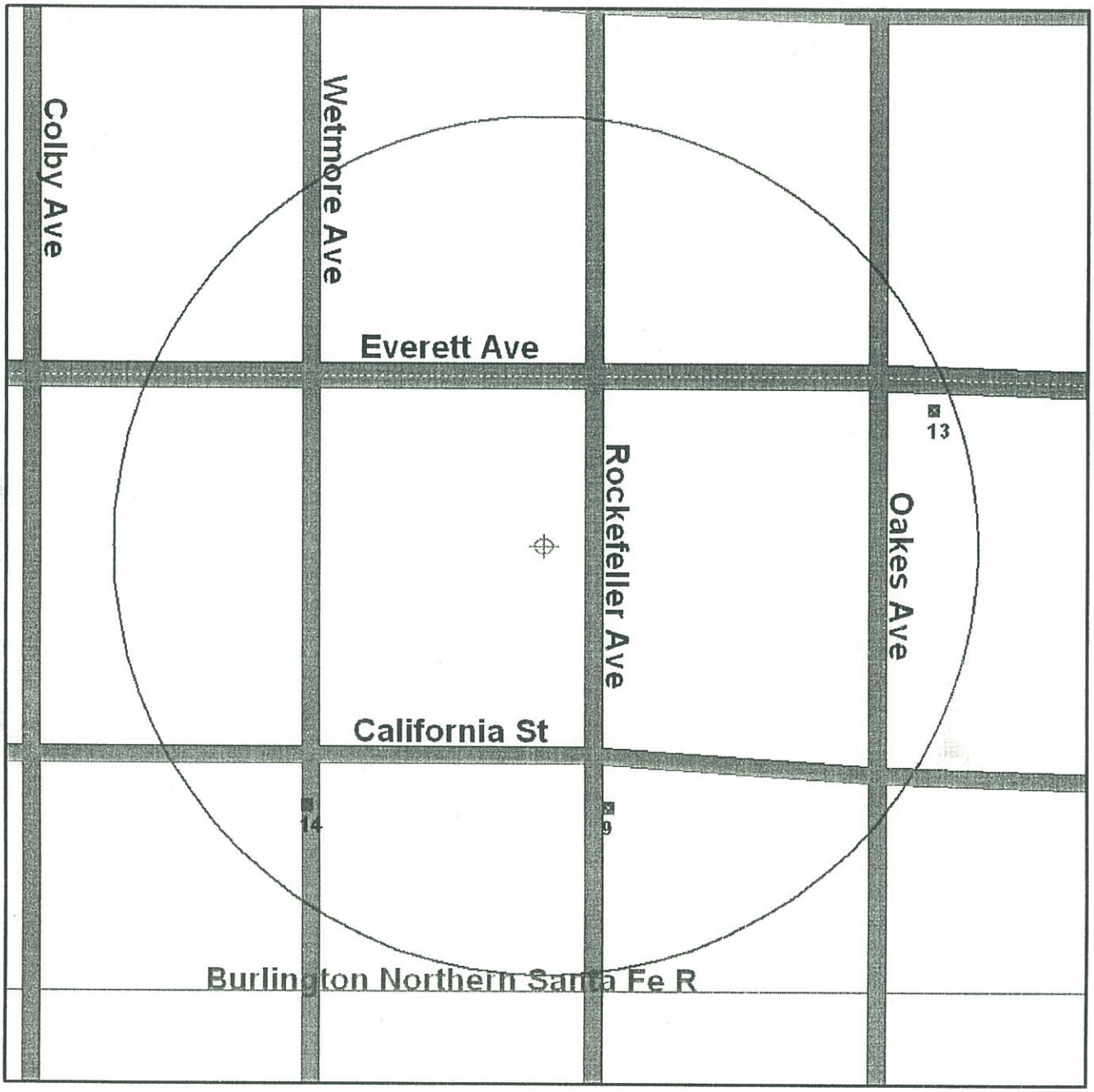
Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

Environmental FirstSearch

.12 Mile Radius

ASTM: NFRAP, ERNS, RCRANLR

2720 ROCKEFELLER AVE, EVERETT WA 98201



Source: 1999 U.S. Census TIGER Files

Target Site (Latitude: 47.981248 Longitude: -122.206138) .....

Identified Site, Multiple Sites, Receptor .....

NPL, Solid Waste Landfill (SWL) or Hazardous Waste .....

Railroads .....

Black Rings Represent 1/4 Mile Radii; Red Ring Represents 500 ft. Radius

APPENDIX B

AHERA Certification Documents

Certificate of Training

J&J Associates is pleased to certify that

Don Spencer

has attended and successfully completed the

AHERA Building Inspector Refresher

in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 29th day of September 2003
at Silverdale, Washington

Valid through September 29, 2004

John G Luter Jr.
COURSE INSTRUCTOR

John G Luter Jr.
TRAINING DIRECTOR

J&J030929-BIR-07
ACCREDITATION NO.

J&J Associates
550 NW Fairwood Way
Bremerton, Washington 98311
(360) 692-5925

LITHO. IN U.S.A.

Certificate of Training

J&J Associates is pleased to certify that

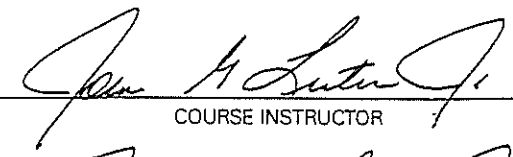
Don Spencer

has attended and successfully completed the

AHERA Management Planner Refresher

in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 29th day of September 2003
at Silverdale, Washington

Valid through September 29, 2004



COURSE INSTRUCTOR

TRAINING DIRECTOR

J&J030929-MPR-01

ACCREDITATION NO.

J&J Associates
550 NW Fairwood Way
Bremerton, Washington 98311
(360) 692-5925

LITHO. IN U.S.A.

Certificate of Training

J&J Associates is pleased to certify that

Jason Cass

has attended and successfully completed the

AHERA BUILDING INSPECTOR REFRESHER

in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 29th day of September 2003
at Silverdale, Washington

Valid through September 29, 2004

John G Luster Jr.
COURSE INSTRUCTOR

John G Luster Jr.
TRAINING DIRECTOR

J&J030929-BIR-05
ACCREDITATION NO.

J&J ASSOCIATES
550 NW Fairwood Way
Bremerton, Washington 98311
(360) 692-5925

LITHO. IN U.S.A.

APPENDIX C

Lead Based Paint Guidance Document

Lead in Construction

U.S. Department of Labor

Occupational Safety and Health Administration

OSHA 3142-09R
2003

Contents

Health Hazards of Lead Exposure

Pure lead (Pb) is a heavy metal at room temperature and pressure. A basic chemical element, it can combine with various other substances to form numerous lead compounds.

Lead has been poisoning workers for thousands of years. Lead can damage the central nervous system, cardiovascular system, reproductive system, hematological system, and kidneys. When absorbed into the body in high enough doses, lead can be toxic.

In addition, workers' lead exposure can harm their children's development.

Short-term (acute) overexposure–as short as days--can cause acute encephalopathy, a condition affecting the brain that develops quickly into seizures, coma, and death from cardiorespiratory arrest. Short-term occupational exposures of this type are highly unusual but not impossible.

Extended, long-term (chronic) overexposure can result in severe damage to the central nervous system, particularly the brain. It can also damage the blood-forming, urinary, and reproductive systems. There is no sharp dividing line between rapidly developing acute effects of lead and chronic effects that take longer to develop.

SYMPTOMS OF CHRONIC OVEREXPOSURE

Some of the common symptoms include:

- Loss of appetite;
- Constipation;
- Nausea;
- Excessive tiredness;
- Headache;
- Fine tremors;
- Colic with severe abdominal pain;
- Metallic taste in the mouth;
- Weakness;
- Nervous irritability;
- Hyperactivity;

- Muscle and joint pain or soreness;
- Anxiety;
- Pallor;
- Insomnia;
- Numbness; and
- Dizziness.

REPRODUCTIVE RISKS

Lead is toxic to both male and female reproductive systems. Lead can alter the structure of sperm cells and there is evidence of miscarriage and stillbirth in women exposed to lead or whose partners have been exposed. Children born to parents who were exposed to excess lead levels are more likely to have birth defects, mental retardation, or behavioral disorders or to die during the first year of childhood.

Workers who desire medical advice about reproductive issues related to lead should contact qualified medical personnel to arrange for a job evaluation and medical followup--particularly if they are pregnant or actively seeking to have a child. Employers whose employees may be exposed to lead and who have been contacted by employees with concerns about reproductive issues must make medical examinations and consultations available.

CHELATING AGENTS

Under certain limited circumstances, a physician may prescribe special drugs called chelating agents to reduce the amount of lead absorbed in body tissues. Using chelation as a preventive measure--that is, to lower blood level but continue to expose a worker--is prohibited and therapeutic or diagnostic chelations of lead that are required must be done under the supervision of a licensed physician in a clinical setting, with thorough and appropriate medical monitoring. The employee must be notified in writing before treatment of potential consequences and allowed to obtain a second opinion.

Worker Exposure

Lead is most commonly absorbed into the body by inhalation. When workers breathe in lead as a dust, fume, or mist, their lungs and upper respiratory tract absorb it into the body. They can also absorb lead through the digestive system if it enters the mouth and is ingested.

A significant portion of the lead inhaled or ingested gets into the bloodstream. Once in the bloodstream, lead circulates through the body and is stored in various organs and body tissues. Some of this lead is filtered out of the body quickly and excreted, but some remains in the blood and tissues. As exposure continues, the amount stored will increase if the body absorbs more lead than it excretes. The lead stored in the tissue can slowly cause irreversible damage, first to individual cells, then to organs and whole body systems.

Construction Workers and Lead Exposure

HOW LEAD IS USED

In construction, lead is used frequently for roofs, cornices, tank linings, and electrical conduits. In plumbing, soft solder, used chiefly for soldering tinplate and copper pipe joints, is an alloy of lead and tin. Soft solder has been banned for many uses in the United States. In addition, the Consumer Product Safety Commission bans the use of lead-based paint in residences. Because lead-based paint inhibits the rusting and corrosion of iron and steel, however, lead continues to be used on bridges, railways, ships, lighthouses, and other steel structures, although substitute coatings are available.

Construction projects vary in their scope and potential for exposing workers to lead and other hazards. Projects such as removing paint from a few interior residential doors may involve limited exposure. Others projects, however, may involve removing or stripping substantial quantities of lead-based paints on large bridges and other structures.

MOST VULNERABLE WORKERS

Workers potentially at risk for lead exposure include those involved in iron work; demolition work; painting; lead-based paint

abatement; plumbing; heating and air conditioning maintenance and repair; electrical work; and carpentry, renovation, and remodeling work. Plumbers, welders, and painters are among those workers most exposed to lead. Significant lead exposures also can arise from removing paint from surfaces previously coated with lead-based paint such as bridges, residences being renovated, and structures being demolished or salvaged. With the increase in highway work, bridge repair, residential lead abatement, and residential remodeling, the potential for exposure to lead-based paint has become more common.

Workers at the highest risk of lead exposure are those involved in:

- Abrasive blasting and
- Welding, cutting, and burning on steel structures.

Other operations with the potential to expose workers to lead include:

- Lead burning;
- Using lead-containing mortar;
- Power tool cleaning without dust collection systems;
- Rivet busting;
- Cleanup activities where dry expendable abrasives are used;
- Movement and removal of abrasive blasting enclosures;
- Manual dry scraping and sanding;
- Manual demolition of structures;
- Heat-gun applications;
- Power tool cleaning with dust collection systems; and
- Spray painting with lead-based paint.

OSHA's Lead Standard

OSHA's Lead Standard for the Construction Industry, Title 29 Code of Federal Regulations 1926.62, covers lead in a variety of forms, including metallic lead, all inorganic lead compounds, and organic lead soaps.

EXPOSURE LIMITS

The standard establishes maximum limits of exposure to lead for all workers covered, including a permissible exposure limit (PEL) and action level (AL).

The PEL sets the maximum worker exposure to lead: 50 micrograms of lead per cubic meter of air (50µg/m3) averaged over an eight-hour period. If employees are exposed to lead for more than eight hours in a workday, their allowable exposure as a TWA for that day must be reduced according to this formula:

Employee exposure (in µg/m3) = 400 divided by the hours worked in the day.

The AL, regardless of respirator use, is an airborne concentration of 30µg/m3, averaged over an eight-hour period. The AL is the level at which an employer must begin specific compliance activities outlined in the standard.

APPLICABILITY TO CONSTRUCTION

OSHA's lead in construction standard applies to all construction work where an employee may be exposed to lead. All work related to construction, alteration, or repair, including painting and decorating, is included. Under this standard, construction includes, but is not limited to:

- Demolition or salvage of structures where lead or materials containing lead are present;
- Removal or encapsulation of materials containing lead;
- New construction, alteration, repair, or renovation of structures, substrates, or portions or materials containing lead;
- Installation of products containing lead;
- Lead contamination from emergency cleanup;
- Transportation, disposal, storage, or containment of lead or materials containing lead where construction activities are performed; and
- Maintenance operations associated with these construction activities.

Employer Responsibilities

WORKER PROTECTIONS

Employers of construction workers are responsible for developing and implementing a worker protection program. At a minimum, the employer's worker protection program for employees exposed to lead above the PEL should include:

- Hazard determination, including exposure assessment;
- Medical surveillance and provisions for medical removal;
- Job-specific compliance programs;
- Engineering and work practice controls;
- Respiratory protection;
- Protective clothing and equipment;
- Housekeeping;
- Hygiene facilities and practices;
- Signs;
- Employee information and training; and
- Recordkeeping.

Because lead is a cumulative and persistent toxic substance and health effects may result from exposure over prolonged periods, employers must use these precautions where feasible to minimize employee exposure to lead.

The employer should, as needed, consult a qualified safety and health professional to develop and implement an effective, site-specific worker protection program. These professionals may work independently or may be associated with an insurance carrier, trade organization, or onsite consultation program.

ELEMENTS OF A COMPLIANCE PROGRAM

For each job where employee exposure exceeds the PEL, the employer must establish and implement a written compliance program to reduce employee exposure to the PEL or below. The compliance program must provide for frequent and regular inspections of job sites, materials, and equipment by a competent person. Written programs, which must be reviewed and updated at least every six months, must include:

- A description of each activity in which lead is emitted (such as equipment used, material involved, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices);
- The means to be used to achieve compliance and engineering plans and studies used to determine the engineering controls selected where they are required;
- Information on the technology considered to meet the PEL;
- Air monitoring data that document the source of lead emissions;
- A detailed schedule for implementing the program, including copies of documentation (such as purchase orders for equipment, construction contracts);
- A work practice program;
- An administrative control schedule, if applicable; and
- Arrangements made among contractors on multi-contractor sites to inform employees of potential lead exposure.

Hazard Assessment

An employer is required to conduct an initial employee exposure assessment of whether employees are exposed to lead at or above the AL based on:

- Any information, observation, or calculation that indicates employee exposure to lead;
- Any previous measurements of airborne lead; and
- Any employee complaints of symptoms attributable to lead exposure.

Objective data and historical measurements of lead may be used to satisfy the standard's initial monitoring requirements.

INITIAL EMPLOYEE EXPOSURE ASSESSMENT

Initial monitoring may be limited to a representative sample of those employees exposed to the greatest concentrations of airborne lead. Representative exposure sampling is permitted when there are a number of employees performing the same job, with

lead exposure of similar duration and level, under essentially the same conditions. For employees engaged in similar work, the standard requires that the members of the group reasonably expected to have the highest exposure levels be monitored. This result is then attributed to the other employees of the group.

The employer must establish and maintain an accurate record documenting the nature and relevancy of previous exposure data. Instead of performing initial monitoring, the employer may in some cases rely on objective data that demonstrate that a particular lead-containing material or product cannot result in employee exposure at or above the action level when it is processed, used, or handled.

BIOLOGICAL MONITORING TESTS

Analysis of blood lead samples must be conducted by an OSHA-approved lab and be accurate (to a confidence level of 95 percent) within plus or minus 15 percent, or 6 µg/dl, whichever is greater. If an employee's airborne lead level is at or above the AL for more than 30 days in any consecutive 12 months, the employer must make biological monitoring available on the following schedule:

- At least every two months for the first six months and every six months thereafter for employees exposed at or above the action level for more than 30 days annually;
- At least every two months for employees whose last blood sampling and analysis indicated a blood lead level at or above 40 µg/dl; and
- At least monthly while an employee is removed from exposure due an elevated blood lead level.

PENDING EMPLOYEE EXPOSURE ASSESSMENT

Until the employer performs an exposure assessment and documents that employees are not exposed above the PEL, OSHA requires some degree of interim protection for employees. This means providing respiratory protection, protective work clothing and equipment, hygiene facilities, biological monitoring, and training—as specified by the standards—for certain tasks prone to produce high exposure. These include:

- Manual demolition of structures such as dry wall, manual scraping, manual sanding, and use of a heat gun where lead-containing coatings or paints are present;
- Power tool cleaning with or without local exhaust ventilation;
- Spray painting with lead-containing paint;
- Lead burning;
- Use of lead-containing mortar;
- Abrasive blasting, rivet busting, welding, cutting, or torch-burning on any structure where lead-containing coatings or paint are present;
- Abrasive blasting enclosure movement and removal;
- Cleanup of activities where dry expendable abrasives are used; and
- Any other task the employer believes may cause exposures in excess of the PEL.

TEST RESULTS SHOWING NO OVEREXPOSURES

If the initial assessment indicates that no employee is exposed above the AL, the employer may discontinue monitoring. Further exposure testing is not required unless there is a change in processes or controls that may result in additional employees being exposed to lead at or above the AL, or may result in employees already exposed at or above the AL being exposed above the PEL. The employer must keep a written record of the determination, including the date, location within the work site, and the name and social security number of each monitored employee.

EMPLOYEE NOTIFICATION OF MONITORING RESULTS

The employer must notify each employee in writing of employee exposure assessment results within five working days of receiving them. Whenever the results indicate that the representative employee exposure, without the use of respirators, is above the PEL, the employer must include a written notice stating that the employee's exposure exceeded the PEL and describing corrective action taken or to be taken to reduce exposure to or below the PEL.

Medical Surveillance

When an employee's airborne exposure is at or above the AL for more than 30 days in any consecutive 12 months, an immediate medical consultation is required when the employee notifies the employer that he or she:

- Has developed signs or symptoms commonly associated with lead-related disease;
- Has demonstrated difficulty in breathing during respirator use or a fit test;
- Desires medical advice concerning the effects of past or current lead exposure on the employee's ability to have a healthy child; and
- Is under medical removal and has a medically appropriate need.

MEDICAL EXAMS

The best indicator of personal lead exposure is through a blood test to indicate elevated blood lead levels. A medical exam must also include:

- Detailed work and medical histories, with particular attention to past lead exposure (occupational and nonoccupational), personal habits (smoking and hygiene), and past gastro-intestinal, hematologic, renal, cardiovascular, reproductive, and neurological problems;
- A thorough physical exam, with particular attention to gums, teeth, hematologic, gastrointestinal, renal, cardiovascular, and neurological systems; evaluation of lung function if respirators are used;
- A blood pressure measurement;
- A blood sample and analysis to determine blood lead level;
  - Hemoglobin and hematocrit determinations, red cell indices, and an exam of peripheral smear morphology; and
  - Zinc protopor-phyrin; blood urea nitrogen; and serum creatinine;
- A routine urinalysis with microscopic exam; and
- Any lab or other test the examining physician deems necessary.

INFORMATION FOR THE EXAMINING PHYSICIAN

The employer must provide all examining physicians with a copy of the lead in construction standard, including all appendices, a description of the affected employee's duties as they relate to the employee's exposure, the employee's lead exposure level or anticipated exposure level, a description of personal protective equipment used or to be used, prior blood lead determinations, and all prior written medical opinions for the employee.

WHEN MONITORING SHOWS NO EMPLOYEE EXPOSURES ABOVE THE AL

Employers must make available, at no cost to the employee, initial medical surveillance for employees exposed to lead on the job at or above the action level on any one day per year. This initial medical surveillance consists of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporyrin (ZPP) levels. In addition, a medical surveillance program with biological monitoring must be made available to any employee exposed at or above the action level for more than 30 days in any consecutive 12 months.

AFTER THE MEDICAL EXAMINATION

Employers must obtain and provide the employee a copy of a written opinion from each examining or consulting physician that contains only information related to occupational exposure to lead and must include:

- Whether the employee has any detected medical condition that would increase the health risk from lead exposure;
- Any special protective measures or limitations on the worker's exposure to lead,
- Any limitation on respirator use; and
- Results of the blood lead determinations.

In addition, the written statement may include a statement that the physician has informed the employee of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.

The employer must instruct the physician that findings, including lab results or diagnoses unrelated to the worker's lead exposure, must not be revealed to the employer or included in the written opinion to the employer. The employer must also instruct the physician to advise employees of any medical condition, occupational or non-occupational, that necessitates further evaluation or treatment. In addition, some states also require laboratories and health care providers to report cases of elevated blood lead concentrations to their state health departments.

Medical Removal Provisions

Temporary medical removal can result from an elevated blood level or a written medical opinion. More specifically, the employer is required to remove from work an employee with a lead exposure at or above the AL each time periodic and follow-up (within two weeks of the periodic test) blood sampling tests indicate that the employee's blood level is at or above 50 µg /dl. The employer also must remove from work an employee with lead exposure at or above the AL each time a final medical determination indicates that the employee needs reduced lead exposure for medical reasons. If the physician who is implementing the employer's medical program makes a final written opinion recommending the employee's removal or other special protective measures, the employer must implement the physician's recommendation.

For an employee removed from exposure to lead at or above the AL due to a blood lead level at or above 50 µg/dl, the employer may return that employee to former job status when two consecutive blood sampling tests indicate that the employee's blood lead level is below 40 µg /dl. For an employee removed from exposure to lead due to a final medical determination, the employee must be returned when a subsequent final medical determination results in a medical finding, determination, or opinion that the employee no longer has a detected medical condition that places the employee at increased risk of lead exposure.

The employer must remove any limitations placed on employees or end any special protective measures when a subse-

quent final medical determination indicates they are no longer necessary. If the former position no longer exists, the employee is returned consistent with whatever job assignment discretion the employer would have had if no removal occurred.

WORKER PROTECTIONS AND BENEFITS

The employer must provide up to 18 months of medical removal protection (MRP) benefits each time an employee is removed from lead exposure or medically limited. As long as the position/job exists, the employer must maintain the earnings, seniority, and other employment rights and benefits as though the employee had not been removed from the job or otherwise medically limited. The employer may condition medical removal protection benefits on the employee's participation in followup medical surveillance.

If a removed employee files a worker's compensation claim or other compensation for lost wages due to a lead-related disability, the employer must continue medical removal protection benefits until the claim is resolved. However, the employer's MRP benefits obligation will be reduced by the amount that the employee receives from these sources. Also, the employer's MRP benefits obligation will be reduced by any income the employee receives from employment with another employer made possible by virtue of the employee's removal.

RECORDS REQUIREMENTS INVOLVING MEDICAL REMOVAL

In the case of medical removal, the employer's records must include:

- The worker's name and social security number,
- The date of each occasion that the worker was removed from current exposure to lead,
- The date when the worker was returned to the former job status,
- A brief explanation of how each removal was or is being accomplished, and
- A statement indicating whether the reason for the removal was an elevated blood lead level.

Recordkeeping

EMPLOYER REQUIREMENTS

The employer must maintain any employee exposure and medical records to document ongoing employee exposure, medical monitoring, and medical removal of workers. This data provides a baseline to evaluate the employee's health properly. Employees or former employees, their designated representatives, and OSHA must have access to exposure and medical records in accordance with 29 CFR 1910.1020. Rules of agency practice and procedure governing OSHA access to employee medical records are found in 29 CFR 1913.10.

EXPOSURE ASSESSMENT RECORDS

The employer must establish and maintain an accurate record of all monitoring and other data used to conduct employee exposure assessments as required by this standard and in accordance with 29 CFR 1910.1020. The exposure assessment records must include:

- The dates, number, duration, location, and results of each sample taken, including a description of the sampling proce-dure used to determine representative employee exposure;
- A description of the sampling and analytical methods used and evidence of their accuracy;
- The type of respiratory protection worn, if any;
- The name, social security number, and job classification of the monitored employee and all others whose exposure the mea-surement represents; and
- Environmental variables that could affect the measurement of employee exposure.

MEDICAL SURVEILLANCE RECORDS

The employer must maintain an accurate record for each employee subject to medical surveillance, including:

- The name, social security number, and description of the employee's duties;
- A copy of the physician's written opinions;

- The results of any airborne exposure monitoring done for the employee and provided to the physician; and
- Any employee medical complaints related to lead exposure.

In addition, the employer must keep or ensure that the examining physician keeps the following medical records:

- A copy of the medical examination results including medical and work history;
- A description of the laboratory procedures and a copy of any guidelines used to interpret the test results; and
- A copy of the results of biological monitoring.

The employer or physician or both must maintain medical records in accordance with 29 CFR 1910.1020.

DOCUMENTS FOR EMPLOYEES SUBJECT TO MEDICAL REMOVAL

The employer must maintain--for at least the duration of employ-ment--an accurate record for each employee subject to medical removal, including:

- The name and social security number of the employee;
- The date on each occasion that the employee was removed from current exposure to lead and the corresponding date which the employee was returned to former job status;
- A brief explanation of how each removal was or is being accomplished; and
- A statement about each removal indicating whether the reason for removal was an elevated blood level.

EMPLOYER REQUIREMENTS RELATED TO OBJECTIVE DATA

The employer must establish and maintain an accurate record documenting the nature and relevancy of objective data relied on to assess initial employee exposure in lieu of exposure monitoring. The employer must maintain the record of objective data relied on for at least 30 years.

DOCUMENTS FOR OSHA AND NIOSH REVIEW

The employer must make all records--including exposure monitor-ing, objective data, medical removal, and medical records--

available upon request to affected employees, former employees, and their designated representatives and to the OSHA Assistant Secretary and the Director of the National Institute for Occupational Safety and Health (NIOSH) for examination and copying in accordance with 29 CFR 1910.1020.

WHEN CLOSING A BUSINESS

When an employer ceases to do business, the successor employer must receive and retain all required records. If no successor is available, these records must be sent to the Director of NIOSH.

Exposure Reduction and Employee Protection

The most effective way to protect workers is to minimize their exposure through engineering controls, good work practices and training, and use of personal protective clothing and equipment, including respirators, where required. The employer needs to designate a competent person capable of identifying existing and predictable lead hazards and who is authorized to take prompt corrective measures to eliminate such problems. The employer should, as needed, consult a qualified safety and health professional to develop and implement an effective worker protection program. These professionals may work independently or may be associated with an insurance carrier, trade organization, or onsite consultation program.

Engineering Controls

Engineering measures include local and general exhaust ventilation, process and equipment modification, material substitution, component replacement, and isolation or automation. Examples of recommended engineering controls that can help reduce worker exposure to lead are described as follows.

EXHAUST VENTILATION

Equip power tools used to remove lead-based paint with dust collection shrouds or other attachments so that paint is exhausted

through a high-efficiency particulate air (HEPA) vacuum system. For operations such as welding, cutting/burning, or heating, use local exhaust ventilation. Use HEPA vacuums during cleanup operations.

For abrasive blasting operations, build a containment structure that is designed to optimize the flow of clean ventilation air past the workers' breathing zones. This will help reduce the exposure to airborne lead and increase visibility. Maintain the affected area under negative pressure to reduce the chances that lead dust will contaminate areas outside the enclosure. Equip the containment structure with an adequately sized dust collector to control emissions of particulate matter into the environment.

ENCLOSURE OR ENCAPSULATION

One way to reduce the lead inhalation or ingestion hazard posed by lead-based paint is to encapsulate it with a material that bonds to the surface, such as acrylic or epoxy coating or flexible wall coverings. Another option is to enclose it using systems such as gypsum wallboard, plywood paneling, and aluminum, vinyl, or wood exterior siding. Floors coated with lead-based paint can be covered using vinyl tile or linoleum.

The building owner or other responsible person should oversee the custodial and maintenance staffs and contractors during all activities involving enclosed or encapsulated lead-based paint. This will minimize the potential for an inadvertent lead release during maintenance, renovation, or demolition.

SUBSTITUTION

Choose materials and chemicals that do not contain lead for construction projects. Among the options are:

- Use zinc-containing primers covered by an epoxy intermediate coat and polyurethane topcoat instead of lead-containing coatings.
- Substitute mobile hydraulic shears for torch cutting under certain circumstances.
- Consider surface preparation equipment such as needle guns with multiple reciprocating needles completely enclosed within an adjustable shroud, instead of abrasive blasting under certain

conditions. The shroud captures dust and debris at the cutting edge and can be equipped with a HEPA vacuum filtration with a self-drumming feature. One such commercial unit can remove lead-based paint from flat steel and concrete surfaces, outside edges, inside corners, and pipes.

- Choose chemical strippers in lieu of hand scraping with a heat gun for work on building exteriors, surfaces involving carvings or molding, or intricate iron work. Chemical removal generates less airborne lead dust. (Be aware, however, that these strippers themselves can be hazardous and that the employer must review the material safety data sheets (MSDSs) for these stripping agents to obtain information on their hazards.)

COMPONENT REPLACEMENT

Replace lead-based painted building components such as windows, doors, and trim with new components free of lead-containing paint. Another option is to remove the paint offsite and then repaint the components with zinc-based paint before replacing them.

PROCESS OR EQUIPMENT MODIFICATION

When applying lead paints or other lead-containing coatings, use a brush or roller rather than a sprayer. This application method introduces little or no paint mist into the air to present a lead inhalation hazard. (Note that there is a ban on the use of lead-based paint in residential housing.)

Use non-silica-containing abrasives such as steel or iron shot/grit sand instead of sand in abrasive blasting operations when practical. The free silica portion of the dust presents a respiratory health hazard.

When appropriate for the conditions, choose blasting techniques that are less dusty than open-air abrasive blasting. These include hydro- or wet-blasting using high-pressure water with or without an abrasive or surrounding the blast nozzle with a ring of water, and vacuum blasting where a vacuum hood for material removal is positioned around the exterior of the blasting nozzle.

When using a heat gun to remove lead-based paints in residential housing units, be sure it is of the flameless electrical softener

type. Heat guns should have electronically controlled temperature settings to allow usage below 700 degrees F. Equip heat guns with various nozzles to cover all common applications and to limit the size of the heated work area.

When using abrasive blasting with a vacuum hood on exterior building surfaces, ensure that the configuration of the heads on the blasting nozzle match the configuration of the substrate so that the vacuum is effective in containing debris.

Ensure that HEPA vacuum cleaners have the appropriate attachments for use on unusual surfaces. Proper use of brushes of various sizes, crevice and angular tools, when needed, will enhance the quality of the HEPA-vacuuming process and help reduce the amount of lead dust released into the air.

ISOLATION

Although it is not feasible to enclose and ventilate some abrasive blasting operations completely, it is possible to isolate many operations to help reduce the potential for lead exposure. Isolation consists of keeping employees not involved in the blasting operations as far away from the work area as possible, reducing the risk of exposure.

Housekeeping and Personal Hygiene

Lead is a cumulative and persistent toxic substance that poses a serious health risk. A rigorous housekeeping program and the observance of basic personal hygiene practices will minimize employee exposure to lead. In addition, these two elements of the worker protection program help prevent workers from taking lead-contaminated dust out of the worksite and into their homes where it can extend the workers' exposures and potentially affect their families' health.

HOUSEKEEPING PRACTICES

An effective housekeeping program involves a regular schedule to remove accumulations of lead dust and lead-containing debris. The schedule should be adapted to exposure conditions at a particular worksite. OSHA's Lead Standard for Construction requires

employers to maintain all surfaces as free of lead contamination as practicable. Vacuuming lead dust with HEPA-filtered equipment or wetting the dust with water before sweeping are effective control measures. Compressed air may not be used to remove lead from contaminated surfaces unless a ventilation system is in place to capture the dust generated by the compressed air.

In addition, put all lead-containing debris and contaminated items accumulated for disposal into sealed, impermeable bags or other closed impermeable containers. Label bags and containers as lead-containing waste. These measures provide additional help in controlling exposure.

PERSONAL HYGIENE PRACTICES

Emphasize workers' personal hygiene such as washing their hands and face after work and before eating to minimize their exposure to lead. Provide and ensure that workers use washing facilities. Provide clean change areas and readily accessible eating areas. If possible, provide a parking area where cars will not be contaminated with lead. These measures:

- Reduce workers' exposure to lead and the likelihood that they will ingest lead,
- Ensure that the exposure does not extend beyond the worksite,
- Reduce the movement of lead from the worksite, and
- Provide added protection to employees and their families.

CHANGE AREAS

The employer must provide a clean change area for employees whose airborne exposure to lead is above the PEL. The area must be equipped with storage facilities for street clothes and a separate area with facilities for the removal and storage of lead-contaminated protective work clothing and equipment. This separation prevents cross contamination of the employee's street and work clothing.

Employees must use a clean change area for taking off street clothes, suiting up in clean protective work clothing, donning respirators before beginning work, and dressing in street clothes after work. No lead-contaminated items should enter this area.

Work clothing must not be worn away from the jobsite. Under no circumstances should lead-contaminated work clothes be laundered at home or taken from the worksite, except to be laundered professionally or for disposal following applicable federal, state, and local regulations.

SHOWERS AND WASHING FACILITIES

When feasible, showers must be provided for use by employees whose airborne exposure to lead is above the permissible exposure limit so they can shower before leaving the worksite. Where showers are provided, employees must change out of their work clothes and shower before changing into their street clothes and leaving the worksite. If employees do not change into clean clothing before leaving the worksite, they may contaminate their homes and automobiles with lead dust, extending their exposure and exposing other members of their household to lead.

In addition, employers must provide adequate washing facilities for their workers. These facilities must be close to the worksite and furnished with water, soap, and clean towels so employees can remove lead contamination from their skin.

Contaminated water from washing facilities and showers must be disposed of in accordance with applicable local, state, or federal regulations.

PERSONAL PRACTICES

The employer must ensure that employees do not enter lunchroom facilities or eating areas with protective work clothing or equipment unless surface lead dust has been removed. HEPA vacuuming and use of a downdraft booth are examples of cleaning methods that limit the dispersion of lead dust from contaminated work clothing.

In all areas where employees are exposed to lead above the PEL, employees must observe the prohibition on the presence and consumption or use of food, beverages, tobacco products, and cosmetics. Employees whose airborne exposure to lead is above the PEL must wash their hands and face before eating, drinking, smoking, or applying cosmetics.

END-OF-DAY PROCEDURES

Employers must ensure that workers who are exposed to lead above the permissible exposure limit follow these procedures at the end of their workday:

- Place contaminated clothes, including work shoes and personal protective equipment to be cleaned, laundered, or disposed of, in a properly labeled closed container.
- Take a shower and wash their hair. Where showers are not provided, employees must wash their hands and face at the end of the workshift.
- Change into street clothes in clean change areas.

Protective Clothing and Equipment

EMPLOYER REQUIREMENTS

Employers must provide workers who are exposed to lead above the PEL or for whom the possibility of skin or eye irritation exists with clean, dry protective work clothing and equipment that are appropriate for the hazard. Employers must provide these items at no cost to employees. Appropriate protective work clothing and equipment used on construction sites includes:

- Coveralls or other full-body work clothing;
- Gloves, hats, and shoes or disposable shoe coverlets;
- Vented goggles or face shields with protective spectacles or goggles;
- Welding or abrasive blasting helmets; and
- Respirators.

Clean work clothing must be issued daily for employees whose exposure levels to lead are above 200 µg/m3, weekly if exposures are above the PEL but at or below 200 µg/m3 or where the possibility of skin or eye irritation exists.

HANDLING CONTAMINATED PROTECTIVE CLOTHING

Workers must not be allowed to leave the worksite wearing lead-contaminated protective clothing or equipment. This is an essential

step in reducing the movement of lead contamination from the workplace into the worker's home and provides added protection for employees and their families.

Disposable coveralls and separate shoe covers may be used, if appropriate, to avoid the need for laundering. Workers must remove protective clothing in change rooms provided for that purpose.

Employers must ensure that employees leave the respirator use area to wash their faces and respirator facepieces as necessary. In addition, employers may require their employees to use HEPA vacuuming, damp wiping, or another suitable cleaning method before removing a respirator to clear loose particle contamination on the respirator and at the face-mask seal.

Place contaminated clothing that is to be cleaned, laundered, or disposed of by the employer in closed containers. Label containers with the warning: "Caution: Clothing contaminated with lead. Do not remove dust by blowing or shaking. Dispose of lead-contaminated wash water in accordance with applicable local, state, or federal regulations."

Workers responsible for handling contaminated clothing, including those in laundry services or subcontractors, must be informed in writing of the potential health hazard of lead exposure. At no time shall lead be removed from protective clothing or equipment by brushing, shaking, or blowing. These actions disperse the lead into the work area.

PREVENTING HEAT STRESS

Workers wearing protective clothing, particularly in hot environments or within containment structures, can face a risk from heat stress if proper control measures are not used.

Heat stress is caused by several interacting factors, including environmental conditions, type of protective clothing worn, the work activity required and anticipated work rate, and individual employee characteristics such as age, weight, and fitness level. When heat stress is a concern, the employer should choose lighter, less insulating protective clothing over heavier clothing, as long as

it provides adequate protection. Other measures the employer can take include: discussing the possibility of heat stress and its signs and symptoms with all workers; using appropriate work/rest regimens; and providing heat stress monitoring that includes measuring employees' heart rates, body temperatures, and weight loss. Employers must provide a source of water or electrolyte drink in a non-contaminated eating and drinking area close to the work area so workers can drink often throughout the day. Workers must wash their hands and face before drinking any fluid if their airborne exposure is above the PEL.

Respiratory Protection

Although engineering and work practice controls are the primary means of protecting workers from exposure to lead, source control at construction sites sometimes is insufficient to control exposure. In these cases, airborne lead concentrations may be high or may vary widely. Respirators often must be used to supplement engineering controls and work practices to reduce worker lead exposures below the PEL. When respirators are required, employers must provide them at no cost to workers.

The standard requires that respirators be used during periods when an employee's exposure to lead exceeds the PEL, including

- Periods necessary to install or implement engineering or work practice controls, and
- Work operations for which engineering and work practice controls are insufficient to reduce employee exposures to or below the PEL.

Respirators also must be provided upon employee request. A requested respirator is included as a requirement to provide increased protection for those employees who wish to reduce their lead burden below what is required by the standard, particularly if they intend to have children in the near future. In addition, respirators must be used when performing previously indicated high exposure or "trigger" tasks, before completion of the initial assessment.

PROVIDING ADEQUATE RESPIRATORY PROTECTION

Before any employee first starts wearing a respirator in the work environment, the employer must perform a fit test. For all employees wearing negative or positive pressure tight-fitting facepiece respirators, the employer must perform either qualitative or quantitative fit tests using an OSHA-accepted fit testing protocol. In addition, employees must be fit tested whenever a different respirator facepiece is used, and at least annually thereafter.

Where daily airborne exposure to lead exceeds 50 µg/m3, affected workers must don respirators before entering the work area and should not remove them until they leave the high-exposure area or have completed a decontamination procedure. Employers must assure that the respirator issued to the employee is selected and fitted properly to ensure minimum leakage through the facepiece-to-face seal.

RESPIRATORY PROTECTION PROGRAMS

When respirators are required at a worksite, the employer must establish a respiratory protection program in accordance with the OSHA standard on respiratory protection, 29 CFR 1910.134. At a minimum, an acceptable respirator program for lead must include:

- Procedures for selecting respirators appropriate to the hazard;
- Fit testing procedures;
- Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations, including cartridge change schedules;
- Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
- Training of employees in the respiratory hazard to which they are potentially exposed during routine and emergency situations;
- Training of employees in the proper use of respirators, including putting on and removing them, any limitations of their use, and their maintenance;

- Procedures for regularly evaluating the effectiveness of the program;
- Procedures to ensure air quality when supplied air is used;
- A written program and designation of a program administrator; and
- Recordkeeping procedures.

In addition, the construction industry lead standard stipulates medical evaluations of employees required to use respirators.

If an employee has difficulty in breathing during a fit test or while using a respirator, the employer must make a medical examination available to that employee to determine whether he or she can wear a respirator safely.

SELECTING A RESPIRATOR

The employer must select the appropriate respirator from Table 1 of the lead standard, 29 CFR 1926.62(f)(3)(i). The employer must provide a powered air-purifying respirator when an employee chooses to use this respirator and it will provide the employee adequate protection. A NIOSH-certified respirator must be selected and used in compliance with the conditions of its certification. In addition, if exposure monitoring or experience indicates airborne exposures to contaminants other than lead such as silica, solvents, or polyurethane coatings, these exposures must be considered when selecting respiratory protection.

Select type CE respirators approved by NIOSH for abrasive blasting operations. Currently, there are two kinds of CE respirators with the following assigned protection factors (APFs): a continuous-flow respirator with a loose-fitting hood, APF 25; and a full facepiece supplied-air respirator operated in a positive-pressure mode, APF 2,000. (Note: OSHA recognizes Bullard Helmets, Models 77 and 88 (1995); Clemco Appollo, Models 20 and 60 (1997); and 3M Model 8100 (1998) as having APFs of 1,000.)

For any airline respirator, it is important to follow the manufacturer's instructions regarding air quality, air pressure, and inside diameter and length of hoses. Be aware that using longer hoses or smaller inside diameter hoses than the manufacturer specifies or

hoses with bends or kinks may reduce or restrict the airflow to a respirator.

Employee Information and Training

The employer must inform employees about lead hazards according to the requirement of OSHA's Hazard Communication standard for the construction industry, 29 CFR 1926.59, including--but not limited to--the requirements for warning signs and labels, material safety data sheets (MSDSs), and employee information and training. (Refer to 29 CFR 1910.1200.)

PROGRAM REQUIREMENTS

Employers must institute an information and training program and ensure that all employees subject to exposure to lead or lead compounds at or above the action level on any day participate. Also covered under information and training are employees who may suffer skin or eye irritation from lead compounds. Initial training must be provided before the initial job assignment. Training must be repeated at least annually and, in brief summary, must include:

- The content of the OSHA lead standard and its appendices;
- The specific nature of operations that could lead to lead expo-sure above the action level;
- The purpose, proper selection, fit, use, and limitations of respirators;
- The purpose and a description of the medical surveillance program, and the medical removal protection program;
- Information concerning the adverse health effects associated with excessive lead exposure;
- The engineering and work practice controls associated with employees' job assignments;
- The contents of any lead-related compliance plan in effect;
- Instructions to employees that chelating agents must not be used routinely to remove lead from their bodies and when necessary only under medical supervision and at the direction of a licensed physician; and

- The right to access records under "Access to Employee Exposure and Medical Records," 29 CFR 1910.1020.

All materials relating to the training program and a copy of the standard and its appendices must be made readily available to all affected employees.

WARNING SIGNS

Employers are required to post these warning signs in each work area where employee exposure to lead is above the PEL:

- WARNING
- LEAD WORK AREA
- POISON
- NO SMOKING OR EATING

All signs must be well lit and kept clean so that they are easily visible. Statements that contradict or detract from the signs' meaning are prohibited. Signs required by other statutes, regulations, or ordinances, however, may be posted in addition to, or in combination with, this sign.

OSHA Assistance, Services, and Products

OSHA can provide extensive help through a variety of programs, including assistance about safety and health programs, state plans, workplace consultations, voluntary protection programs, strategic partnerships, alliances, and training and education. An overall commitment to workplace safety and health can add value to your business, to your workplace, and to your life.

How does safety and health management system assistance help employers and employees?

Working in a safe and healthful environment can stimulate innovation and creativity and result in increased performance and higher productivity. The key to a safe and healthful work environment is a comprehensive safety and health management system.

OSHA has electronic compliance assistance tools, or eTools, on its website that walks users through the steps required to develop a

comprehensive safety and health program. The eTools are posted at www.osha.gov, and are based on guidelines that identify four general elements critical to a successful safety and health management system:

- Management leadership and employee involvement,
- Worksite analysis,
- Hazard prevention and control, and
- Safety and health training.

STATE PROGRAMS

The Occupational Safety and Health Act of 1970 (OSH Act) encourages states to develop and operate their own job safety and health plans. OSHA approves and monitors these plans and funds up to 50 percent of each program's operating costs. State plans must provide standards and enforcement programs, as well as voluntary compliance activities, that are at least as effective as federal OSHA's.

Currently, 26 states and territories have their own plans. Twenty-three cover both private and public (state and local government) employees and three states, Connecticut, New Jersey, and New York, cover only the public sector. For more information on state plans, see the list at the end of this publication, or visit OSHA's website at www.osha.gov.

CONSULTATION ASSISTANCE

Consultation assistance is available on request to employers who want help establishing and maintaining a safe and healthful workplace. Funded largely by OSHA, the service is provided at no cost to small employers and is delivered by state authorities through professional safety and health consultants.

SAFETY AND HEALTH ACHIEVEMENT RECOGNITION PROGRAM

Under the consultation program, certain exemplary employers may request participation in OSHA's Safety and Health Achievement Recognition Program (SHARP). Eligibility for participation includes, but is not limited to, receiving a full-service, compre-

hensive consultation visit, correcting all identified hazards, and developing an effective safety and health management system.

Employers accepted into SHARP may receive an exemption from programmed inspections (not complaint or accident investigation inspections) for 1 year initially, or 2 years upon renewal. For more information about consultation assistance, see the list of consultation projects at the end of this publication.

VOLUNTARY PROTECTION PROGRAMS

Voluntary Protection Programs (VPP) are designed to recognize outstanding achievements by companies that have developed and implemented effective safety and health management programs. There are three VPP programs: Star, Merit, and Demonstration. All are designed to

- Recognize who that have successfully developed and implemented effective and comprehensive safety and health management programs;
- Encourage these employers to continuously improve their safety and health management programs;
- Motivate other employers to achieve excellent safety and health results in the same outstanding way; and
- Establish a cooperative relationship between employers, employees, and OSHA.

VPP participation can bring many benefits to employers and employees, including fewer worker fatalities, injuries, and illnesses; lost-workday case rates generally 50 percent below industry averages; and lower workers' compensation and other injury- and illness-related costs. In addition, many VPP sites report improved employee motivation to work safely, leading to a better quality of life at work; positive community recognition and interaction; further improvement and revitalization of already-good safety and health programs; and a positive relationship with OSHA.

After a site applies for the program, OSHA reviews an employer's VPP application and conducts a VPP onsite evaluation to verify that the site's safety and health management programs are

operating effectively. OSHA conducts onsite evaluations on a regular basis.

Sites participating in VPP are not scheduled for regular, programmed inspections. OSHA does, however, handle any employee complaints, serious accidents, or significant chemical releases that may occur at VPP sites according to routine enforcement procedures.

Additional information on VPP is available from OSHA regional offices listed at the end of this booklet. Also, see "Cooperative Programs" on OSHA's website.

COOPERATIVE PARTNERSHIPS

OSHA has learned firsthand that voluntary, cooperative partnerships with employers, employees, and unions can be a useful alternative to traditional enforcement and an effective way to reduce worker deaths, injuries, and illnesses. This is especially true when a partnership leads to the development and implementation of a comprehensive workplace safety and health management system.

ALLIANCE PROGRAM

Alliances enable organizations committed to workplace safety and health to collaborate with OSHA to prevent injuries and illnesses in the workplace. OSHA and its allies work together to reach out to, educate, and lead the nation's employers and their employees in improving and advancing workplace safety and health.

Alliances are open to all, including trade or professional organizations, businesses, labor organizations, educational institutions, and government agencies. In some cases, organizations may be building on existing relationships with OSHA through other cooperative programs.

There are few formal program requirements for alliances, which are less structured than other cooperative agreements, and the agreements do not include an enforcement component. However, OSHA and the participating organizations must define, implement, and meet a set of short- and long-term goals that fall into three cat-

egories: training and education; outreach and communication; and promotion of the national dialogue on workplace safety and health.

STRATEGIC PARTNERSHIP PROGRAM

OSHA Strategic Partnerships are agreements among labor, management, and government to improve workplace safety and health. These partnerships encourage, assist, and recognize the efforts of the partners to eliminate serious workplace hazards and achieve a high level of worker safety and health. Whereas OSHA's Consultation Program and VPP entail one-on-one relationships between OSHA and individual worksites, most strategic partnerships build cooperative relationships with groups of employers and employees.

For more information about this program, contact your nearest OSHA office or visit our website.

OCCUPATIONAL SAFETY AND HEALTH TRAINING

The OSHA Training Institute in Arlington Heights, Ill., provides basic and advanced training and education in safety and health for federal and state compliance officers, state consultants, other federal agency personnel, and private-sector employers, employees, and their representatives.

TRAINING GRANTS

OSHA awards grants to nonprofit organizations to provide safety and health training and education to employers and workers in the workplace. Grants often focus on high-risk activities or hazards or may help nonprofit organizations in training, education, and outreach.

OSHA expects each grantee to develop a program that addresses a safety and health topic named by OSHA, recruit workers and employers for the training, and conduct the training. Grantees are also expected to follow up with students to find out how they applied the training in their workplaces.

For more information contact OSHA Office of Training and Education, 2020 Arlington Heights Rd., Arlington Heights, IL 60005; or call (847) 297-4810.

OTHER ASSISTANCE MATERIALS

OSHA has a variety of materials and tools on its website at www.osha.gov. These include eTools such as Expert Advisors and Electronic Compliance Assistance Tools, information on specific health and safety topics, regulations, directives, publications, videos, and other information for employers and employees.

OSHA also has an extensive publications program. For a list of items, visit OSHA's website at www.osha.gov or contact the OSHA Publications Office, U.S. Department of Labor, 200 Constitution Avenue, NW, N-3101, Washington, DC 20210. Telephone (202) 693-1888 or fax to (202) 693-2498.

In addition, OSHA's CD-ROM includes standards, interpretations, directives, and more. It is available for sale from the U.S. Government Printing Office. To order, write to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, or phone (202) 512-1800.

IN CASE OF AN EMERGENCY OR TO FILE A COMPLAINT

To report an emergency, file a complaint, or seek OSHA advice, assistance, or products, call (800) 321-OSHA or contact your nearest OSHA regional office listed at the end of this publication. The teletypewriter (TTY) number is (877) 889-5627.

Employees can also file a complaint online and get more information on OSHA federal and state programs by visiting OSHA's website at www.osha.gov.

OSHA Regional Offices

Region I
(CT,* ME, MA, NH, RI, VT*)
Boston, MA 02203
(617) 565-9860

Region II
(NJ,* NY,* PR,* VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378

Region III
(DE, DC, MD,* PA,* VA,* WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900

Region IV
(AL, FL, GA, KY,* MS, NC,* SC,* TN*)
Atlanta Federal Center
61 Forsyth Street SW, Room 6T50
Atlanta, GA 30303
(404) 562-2300

Region V
(IL, IN,* MI,* MN,* OH, WI)
230 South Dearborn Street,
Room 3244
Chicago, IL 60604
(312) 353-2220

Region VI
(AR, LA, NM,* OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(214) 767-4731 or 4736 x224

Region VII
(IA,* KS, MO, NE)
City Center Square
1100 Main Street, Suite 800
Kansas City, MO 64105
(816) 426-5861

Region VIII
(CO, MT, ND, SD, UT,* WY*)
1999 Broadway, Suite 1690
PO Box 46550
Denver, CO 80202-5716
(303) 844-1600

Region IX
(American Samoa, AZ,* CA,* HI, NV,* Northern Mariana Islands)
71 Stevenson Street, Room 420
San Francisco, CA 94105
(415) 975-4310

Region X
(AK,* ID, OR,* WA*)
1111 Third Avenue, Suite 715
Seattle, WA 98101-3212
(206) 553-5930

*These states and territories operate their own OSHA-approved job safety and health programs (Connecticut, New Jersey, and New York plans cover public employees only). States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard.

Note: To get contact information for OSHA Area Offices, OSHA-approved state plans, and OSHA Consultation Projects, please visit us online at www.osha.gov or call us at (800) 321-OSHA.

APPENDIX D

Previous Work by Others

QUEST

Quality Environmental Services Team, Inc.

July 28, 1994

Ms. Susan Brown
The YMCA of Snohomish County
Everett Family Branch
2720 Rockefeller Avenue
Everett, Washington 98201

SUBJECT: Results of a Limited Site Assessment Conducted at The YMCA of Snohomish County - Everett Family Branch Located at 2720 Rockefeller Avenue, Everett, Washington.

Dear Ms. Brown:

Quality Environmental Services Team, Inc. (QUEST) is pleased to provide the results of a Limited Site Assessment conducted at the subject site in July 1994. The assessment focused on drilling and soil sampling near an underground storage tank (UST) and sampling of potential asbestos containing materials (ACM's) in the building on-site. The work was performed in accordance with the proposal prepared by QUEST dated July 11, 1994 and submitted to The YMCA of Snohomish County - Everett Family Branch (YMCA).

BACKGROUND

The subject site is located at the northwest corner of Rockefeller Avenue and California Street in Everett, WA. (Figure 1). Land use surrounding the subject site is primarily commercial.

The subject site is the location of a YMCA Building, a three-story, masonry structure erected in 1921 with additions constructed in 1961 and 1980. According to information provided to QUEST by the YMCA, Environmental Associates, Inc. (EAI) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the property in June 1994. The initiation of the Phase I ESA was prompted by YMCA's interest in obtaining financing to remodel the building at the site.

2424 170th Street S.E. • Bothell, WA 98012-6511 (206) 481-3566 • Fax (206) 481-1152

EAI's report identified the presence of an underground storage tank (UST) containing heating oil (Bunker C Oil) near the alley along the west side of the building. The bottom of the UST was measured to be approximately 17 feet below ground surface. In addition, thermal hydronic system insulation, floor tiles in the 1921 building, and spray on fire proofing material were identified. These material are recognized as potential asbestos containing materials (ACM's).

Following completion of the Phase I ESA, QUEST was retained by the YMCA to assess:

1) the presence or absence of total petroleum hydrocarbons (TPH) in soil near the UST; and,

2) the presence or absence of asbestos in potential ACM's identified by the Phase I ESA performed by EAI.

LIMITED SITE ASSESSMENT PROGRAM

QUEST conducted a limited site assessment at the subject property consisting of:

1) the drilling of one soil boring to a depth of 20 feet below ground surface (bgs);

2) the collection of soil samples at 2.5, 7.5, 12.5, and 20 feet bgs;

3) the analyses of soil samples for total petroleum hydrocarbons; and

4) the sampling and analyses of potential asbestos containing materials (ACM's) in the YMCA building.

DRILLING AND SOIL SAMPLING

On July 19, 1994, Environmental Drilling of Snohomish, Washington, under the supervision of QUEST, drilled one soil boring (YB-1) to a depth of approximately 20 feet bgs. The soil borings were drilled using a truck-mounted Mobile Drill Company B-61 hollow-stem auger drilling rig. The auger flights used to drill the boring are 5 feet in length with an inside diameter (ID) of approximately three inches and an outside diameter (OD), including the bit of approximately eight inches. A retractable plug prevents soil from entering into the auger flights during the drilling process. The plug is inserted and retrieved from the hollow-stem augers by a wireline.

During the drilling of Boring YB-1, relatively undisturbed soil samples were collected for chemical analyses and visual description at 2.5, 7.5, 12.5, and 20 feet bgs. Soil samples were collected using a Modified California Sampler consisting of an outer barrel lined with a set of 6-inch long by 2.5-inch OD brass rings. The sampler is attached to the end of a 140-pound slide hammer, lowered through the hollow-stem auger flights, and is driven 12-inches with the hammer. A soil sample is collected in the two rings placed end to end inside the sampler. The number of blows required to drive the sampler twelve inches is recorded in the field as an indication of soil density and drilling conditions.

Before the Modified California Sampler and rings were assembled and placed in the boring, they were cleaned to avoid cross-contamination of samples. The equipment was washed with Liquid-Nox® detergent solution, rinsed with tap water, and then allowed to air dry. The auger flights were steam cleaned by the drilling company prior to arrival at the site.

After the sampler was driven to the desired depth, the rings were removed. The soil from the lower ring were transferred to laboratory supplied glass sample containers with Teflon® lined lids. The sample was then sealed, labeled, and placed in an ice chest for cold storage during field work and transport. Soil sampling collection and handling procedures were performed in accordance to federal, state, and local regulatory guidelines.

The soil in the upper ring was examined in the field for olfactory indications of petroleum hydrocarbons and used for lithologic description. The grain size, color, odor, moisture, and other pertinent properties were described on field boring logs by a scientist, geologist, or engineer from QUEST. The copy of the boring log is attached.

LABORATORY ANALYSES

Following drilling and soil sampling activities, the collected soil samples were transported by QUEST under chain-of-custody documentation to CCI Laboratories, an independent analytical laboratory located in Everett, Washington. The soil samples collected in Boring YB-1 at 2.5, 7.5, and 12.5 feet bgs were composited by the laboratory to a single sample and analyzed for Total Petroleum Hydrocarbons (TPH) utilizing EPA Method 418.1. The depth-specific soil sample collected at 20 feet bgs was also analyzed for TPH utilizing EPA Method 418.1.

ASBESTOS SAMPLING AND ANALYSES

QUEST retained the services of Welch Enterprises, Inc. (Welch), an asbestos services company located in Mt. Vernon, Washington, to inspect, sample, and analyze the potential asbestos containing materials (ACM's) identified in the Phase I ESA.

On July 19, 1994, Welch, in the presence of a QUEST representative, inspected the YMCA building located at 2720 Rockefeller Avenue, Everett, Washington. The inspection focused on the materials identified as potential ACM's in the Phase I ESA. During the inspection, eleven bulk samples were collected. Each of the eleven samples collected were analyzed by a Welch Certified Asbestos Bulk Analysis Technician utilizing Polarized Light Microscopy with Stain Dispersion (PLM-DS Method). A copy of Welch's report is attached.

FINDINGS

DRILLING AND SOIL SAMPLING

Physical Findings

Sediments beneath the site consisted predominantly of fine-grained sand. The sand was generally gray/brown, medium dense, dry and contained minor amounts of silt and small to medium gravel. The soil sample collected at a depth of approximately 2.5 feet below ground surface possessed visual and olfactory evidence of petroleum hydrocarbons believed to be heavy oil. No olfactory or visual evidence of petroleum hydrocarbons were identified in any of the other soil samples collected from Boring YB-1. No groundwater was found during drilling activities.

Chemical Findings

Laboratory reported results indicated that the composited sample of soil samples collected at 2.5, 7.5, and 12.5 feet bgs contained total petroleum hydrocarbons of 500 milligrams per kilogram (kg/kg) or parts per million (ppm). The depth specific soil sample collected at 20 feet bgs was found to contain no detectable concentrations of TPH at a laboratory detection limit of 100 ppm. The Model Toxics Control Act (MTCA) Method A Clean-up Levels for soil (soil clean-up levels) is 200 ppm for TPH as diesel or oil. Results of laboratory analyses reported by the laboratory are summarized in Table 1.

TABLE 1: LABORATORY RESULTS OF SOIL SAMPLES

SOIL SAMPLES COLLECTED FROM BORING YB-1			
SAMPLE I.D.	LOCATION	DEPTH	WTPH-418.1 (ppm)
COMPOSITE OF YB-1 @ 2.5', 7.5', & 12.5'	YB-1	COMPOSITE	500
YB-1 @ 20'	YB-1	20 feet	ND (<100)

WTPH-418.1 - Total Petroleum Hydrocarbons using EPA Method 418.1
ppm - parts per million or milligrams per kilograms
ND (<100)- not detected at less than 100 ppm

ASBESTOS SAMPLING

The results of asbestos analyses performed and reported by Welch indicated that nine of the eleven bulk samples contained more than 1% asbestos; the allowable limit of asbestos in materials by weight as established in Title 40 Code of federal regulations (40 CFR), subpart M, Section 61.141. A copy of the report prepared by Welch is attached.

The only bulk samples collected and analyzed that did not contain more than 1% asbestos were those collected from the spray-on fireproofing located on the 1980 gymnasium ceiling (Sample #1) and from the walls in a storage room located along the Teen Center Hallway (Sample #10).

Samples collected from the following materials were found to contain more than 1% asbestos:

1) thermal hydronic system insulation found in the boiler room and near the exit of the boiler room including gasket material on Boiler #1 (Sample #'s 2, 3, 4, and 5);

2) brown vinyl tile flooring including both the tile and mastic found near the fire exit of the basement weight room (Sample #6);

3) water tank insulation located in the small pool mechanical room (Sample #7);

4) black vinyl tile flooring but not the mastic found in the pre-school office (Sample #8);

5) brown vinyl tile flooring including both the tile and mastic found in the main lobby (Sample #9); and,

6) green vinyl tile flooring but not in the mastic found in the Teen Center Hallway (Sample #11).

SUMMARY AND CONCLUSIONS

The following summary and conclusions are based on the findings of the Limited Site Assessment described in this report:

- Laboratory reported results indicated that the composited sample of soil samples collected at 2.5, 7.5, and 12.5 feet bgs in Boring YB-1 contained total petroleum hydrocarbons (TPH) of 500 ppm when analyzed using EPA Method 418.1.

- The 500 ppm concentration found in the composited soil sample exceeds Model Toxics Control Act (MTCA) Method A Clean-up Levels for soil (soil clean-up levels) of 200 ppm.

- The depth specific soil sample collected at 20 feet bgs in Boring YB-1 was found to contain no detectable (ND) concentrations of TPH at a laboratory detection limit of 100 ppm when analyzed using EPA method 418.1

- The physical and chemical findings of drilling and soil sampling suggest that TPH concentrations above soil clean-up levels are present in shallow soil near the on-site UST. Further, based on past experience on similar sites, it is likely that the source of TPH concentrations in soil is a result of periodic spillage of oil during UST filling. Considering the relatively high viscosity of the heating oil stored in the tank (Bunker C Oil), the relatively low permeability of the sediments beneath the site, and the suspected small volume and infrequency of spillage during periodic UST filling, TPH concentrations in soil are likely limited to the immediate area surrounding the fill pipe. This is further supported by the lack of field indications of petroleum hydrocarbons in the soil samples collected at 7.5 and 12.5 feet bgs in Boring YB-1.

- The results of asbestos sampling indicates that the hydronic thermal insulation and vinyl floor tile identified in the Phase I ESA contains more than 1% asbestos content. The spray-on ceiling located in the 1980 gymnasium did not contain more than 1% asbestos.

STANDARD LIMITATIONS

This report has been prepared for the use of the YMCA of Snohomish County and its representatives for specific application to this site. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other scientists geologists, and engineers practicing in this field. No warranty expressed or implied is made.

CLOSURE

QUEST appreciates the opportunity to be of service to you on this project. If you have any questions regarding this report, please contact the undersigned at (206) 481-3566.

Sincerely,
QUEST

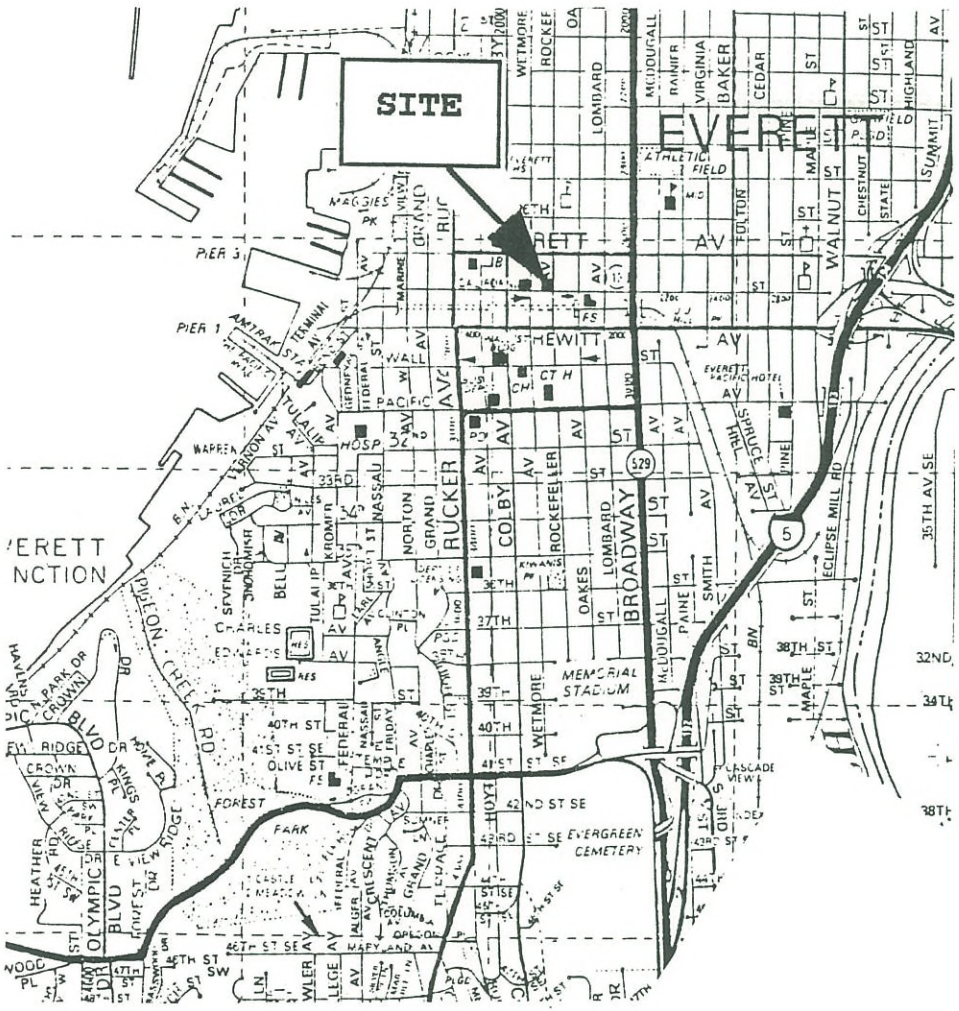
Chris Generous, R.G.
Principal Engineer

attachments:

ATTACHMENTS

ATTACHMENT A

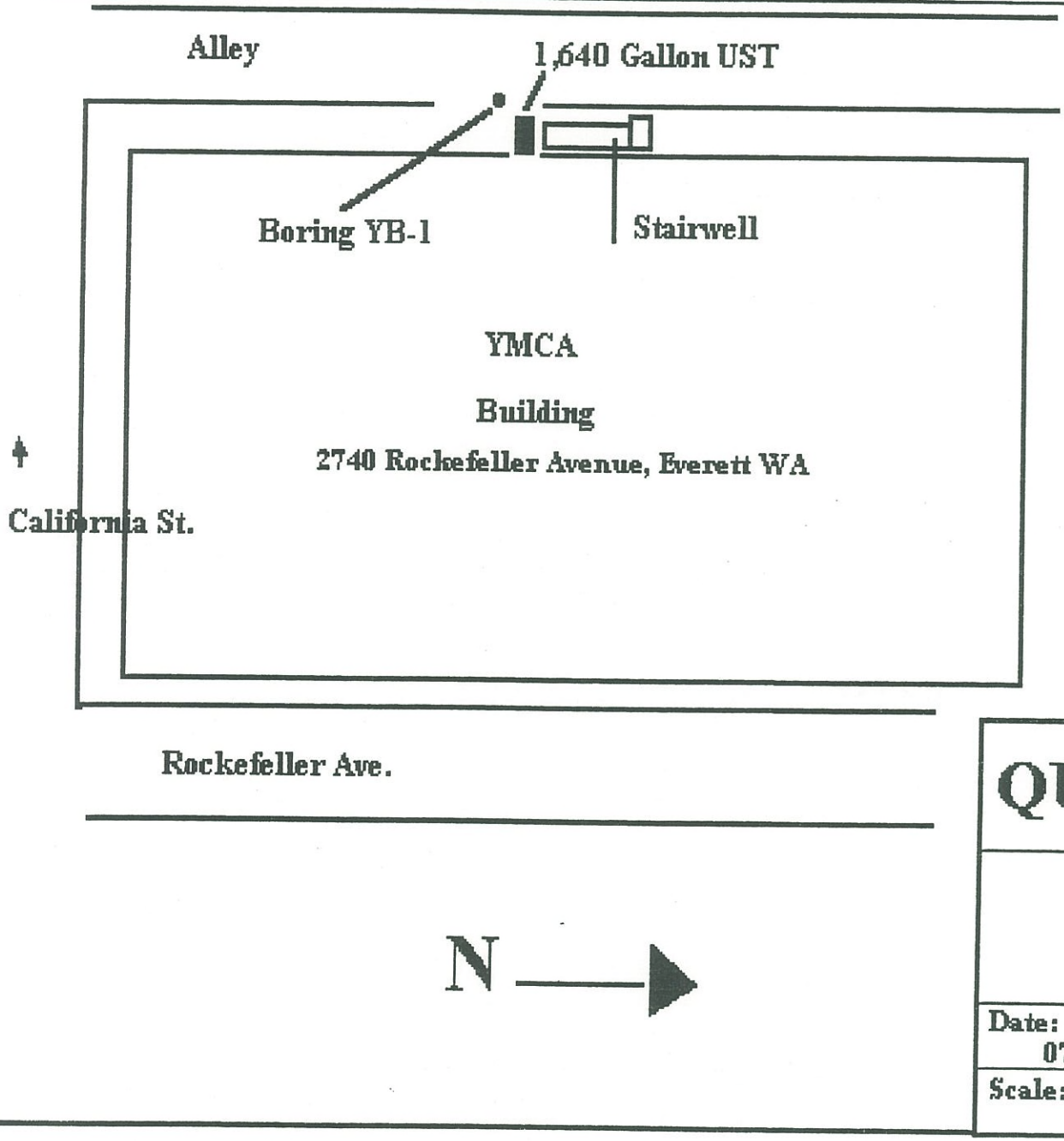
FIGURES



QUEST	**The YMCA of Snohomish Co. Everett, Branch**

SITE LOCATION MAP

Date: 07-28-94	**Project No.** 0794003	**Figure #** 1
Scale: 1" = 2,560'	**Drawn By:** Generous	



QUEST	The YMCA of Snohomish Co. Everett, Branch

SITE PLAN

Date: 07-28-94	Project No. 0794003	Figure # 2
Scale: No Scale	Drawn By: Generous	

ATTACHMENT B

SOIL BORING LOG

QUEST	LOG OF EXPLORATORY BORING	Project: # 0794003 Date: 07-19-94 Client: YMCA/Everett | Location: 2720 Rockefel. |Boring/Well Logged By: C. Generous | YB-1 Driller: B. McCall |
Field Location of Boring/Well		Drilling: Method Mobile Drill B-61 Hole Diameter: 8 inches Installation Data: Boring backfilled with bentonite and cuttings.

DEPTH	BLOW/FT	VAPOR CONCENT	SAMPLE DEPTH	DESCRIPTION
1				Gravel surface
2	9		2.5′	@ 2.5′ Sand, fine-grain, gray/black, some small gravel and silt, dry, oil odor
3				
4				
5				
6				
7	54		7.5′	Silty Sand, fine-grain, gray/brown, some small to medium gravel, dry, med. dense, no odor
8				
9				
10				
11				
12	64		12.5	Same as above
13				
14				
15				
16				
17				No Recovery @ 17.5′
18				
19				
20	66		20′	Silty Sand, fine-grain, gray/brown, some small to med. gravel, dry, med. dense, no odor **Total Depth of Boring = 20 feet**

ATTACHMENT C

ASBESTOS SAMPLING AND ANLYSES REPORT

PREPARED BY
WELCH ENTERPRISES, INC.
MOUNT VERNON, WASHINGTON

Welch Enterprises, Inc.
115 Lind St., PO Box 366
Mount Vernon WA 98273
(206) 336-9578

WELCHE1099NP

July 21, 1994

Quest
2424 - 170th St. SE
Bothell, Wa. 98012-6511

RE: **Asbestos Good Faith Survey - 2720 Rockefeller, Everett, Wa.**

July 19, 1994 (cw)
On ~~May 9, 1994~~, our firm inspected a commercial building (YMCA) located at the above referenced address.

The purpose of this inspection/survey was to determine the presence or absence of building materials that might contain asbestos. Title 40 Code of Federal Regulations (40 CFR), subpart M, section 61.141, established the allowable limit of asbestos in building materials at 1% by weight. Materials containing more than 1% asbestos are regulated and must be handled in accordance with Federal, State, and Local regulations.

Eleven bulk samples were collected and subsequently analyzed for asbestos content by Polarized Light Microscopy with Stain Dispersion. Samples # 2, 3, 4, 5, 6, 7, 8, 9, and 11 were found to contain more than 1% asbestos. In addition, the main lobby, auditorium, and gymnasium have acoustical ceiling tiles that were not tested - field opinion is fiberglass.

The material represented by these samples will require handling/removal by certified asbestos workers prior to any remodeling, renovation, or demolition that will lead to disturbance or removal of asbestos. Prior to removal of these materials, ten-day notices must be filed with the local Air Pollution Authority and the State Department of Labor & Industries.

This letter and attached lab report will comprise the 'Good Faith Survey'.

Please call us if you have any questions.

Sincerely,

Robert H. Welch

Robert H. Welch
President

RHW/dbp
Enclosure

Mt. Vernon Asbestos Lab

Welch Enterprises, Inc.

115 Lind St., PO Box 366
Mount Vernon WA 98273

Phone (206) 336-9578
FAX (206) 336-9579

ASBESTOS BULK SAMPLE ANALYSIS

Client Name: Quest
2424 - 170th St. SE
Bothell, Wa. 98012-6511
(206) 481-3566
Attention: Chris L. Generous

Source of Samples: YMCA, 2720 Rockefeller, Everett, Wa. **Date Rec'd:** 7/19/94

Analytical Method: Polarized Light Microscopy with Dispersion Staining (PLM-DS Method)

Sample No.: 1	**Analysis:**	**Asbestos:**	None detected
Lab No.: 12369B			
Location: Gym ceiling		**Other fibers:**	Cellulose
Description: Off white fibrous texture material			
Sample No.: 2	**Analysis:**	**Asbestos:**	**Chrysotile 20-30%**
Lab No.: 12370B			
Location: Bioler room		**Other fibers:**	Cellulose
Description: White pipe insulation			
Sample No.: 3	**Analysis:**	**Asbestos:**	**Chrysotile 70-80%**
Lab No.: 12371B			
Location: Bioler #1 - gasket		**Other fibers:**	Cellulose
Description: White fibrous mat			
Sample No.: 4	**Analysis:**	**Asbestos:**	**Chrysotile 5-15%**
Lab No.: 12372B			**Amosite 30-40%**
Location: Bioler #1 - take off line (15')		**Other fibers:**	Cellulose
Description: White pipe insulation			
Sample No.: 5	**Analysis:**	**Asbestos:**	**Chrysotile 20-30%**
Lab No.: 12373B			
Location: Outside boiler room W. exit		**Other fibers:**	Cellulose
Description: White pipe fitting insulation			
Sample No.: 6	**Analysis:**	**Asbestos:**	**Chrysotile 5-15%**
Lab No.: 12374B			
Location: Fire exit from basement weight room - flooring		**Other fibers:**	Cellulose
Description: Brown vinyl tile w/black mastic			

Note: Asbestos found in <u>both</u> tile and mastic.

Analyst: Dave B. Phillips Date: 7-21-94

Dave B. Phillips / Rodney R. Welch

Mt. Vernon Asbestos Lab

Welch Enterprises, Inc.

115 Lind St., PO Box 366
Mount Vernon WA 98273

Phone (206) 336-9578
FAX (206) 336-9579

ASBESTOS BULK SAMPLE ANALYSIS

Sample No.: 7 **Analysis:** **Asbestos:** **Chrysotile 5-15%**
Lab No.: 12375B **Amosite 30-40%**
Location: Small pool mechanical room (water tank insul.) **Other fibers:** Cellulose
Description: White pipe insulation

Sample No.: 8 **Analysis:** **Asbestos:** **Chrysotile 5-15%**
Lab No.: 12376B
Location: Linda's office (pre-school) - flooring **Other fibers:** Cellulose
Description: Black vinyl tile w/black mastic
Note: Asbestos found in tile only @ ca 10%, none found in mastic.

Sample No.: 9 **Analysis:** **Asbestos:** **Chrysotile 5-15%**
Lab No.: 12377B
Location: Main lobby flooring **Other fibers:** Cellulose
Description: Brown vinyl tile w/black mastic
Note: Asbestos found in both tile and mastic.

Sample No.: 10 **Analysis:** **Asbestos:** None detected
Lab No.: 12378B
Location: Ghost city walls **Other fibers:** None detected
Description: White plaster

Sample No.: 11 **Analysis:** **Asbestos:** **Chrysotile 5-15%**
Lab No.: 12379B
Location: Teen center hallway flooring **Other fibers:** Cellulose
Description: Green vinyl tile w/black mastic
Note: Asbestos found in tile only @ ca 10%, none found in mastic.

Analyst: Dave B. Phillips / Rodney R. Welch Date: 7-21-94

Lab results are completely confidential. Written permission is required to release results to another party.

ATTACHMENT D

LABORATORY REPORTS

Laboratories

Serving the Environmental. Aerospace and Defense Industries

CERTIFICATE OF ANALYSIS

CLIENT: QUEST
2424 170TH ST SE
BOTHELL, WA 98012-6511

DATE: 7/20/94
CCIL JOB #: 407021
CCIL SAMPLE #: 4
DATE RECEIVED: 7/19/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID: EVERETT, YMCA 79001
CLIENT SAMPLE ID: YB-1 @ 20' 7/19/94 10:15

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	ND(<100)	MG/KG	200MG/KG	7/19/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: _____

Laboratories

Serving the Environmental. Aerospace and Defense Industries

CERTIFICATE OF ANALYSIS

CLIENT: QUEST
2424 170TH ST SE
BOTHELL, WA 98012-6511

DATE: 7/20/94
CCIL JOB #: 407021
CCIL SAMPLE #: 5
DATE RECEIVED: 7/19/94
WDOE ACCREDITATION #: C142

CLIENT CONTACT: CHRIS GENEROUS

CLIENT PROJECT ID: EVERETT, YMCA 79001
CLIENT SAMPLE ID: COMPOSITE OF YB-1 @ 2.5', 7.5', 12.5' 7/19/94

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ACTION LEVEL***	ANALYSIS DATE	ANALYSIS BY
TPH-HEAVY OIL	WTPH-418.1	500	MG/KG	200MG/KG	7/19/94	SJB

* "ND" INDICATES ANALYTE NOT DETECTED. REPORTING LIMIT IS GIVEN IN PARENTHESES

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

*** ACTIONS LEVELS ARE PROVIDED ONLY WHEN PARAMETER DATA IS USED FOR A GENERALLY CONSISTENT APPLICATION. WHEN PROVIDED, THEY SHOULD BE USED AS GUIDELINES ONLY. THE APPROPRIATE REGULATORY DOCUMENT SHOULD BE CONSULTED BEFORE MAKING ANY DECISIONS BASED ON ANALYTICAL DATA

APPROVED BY: _____

CCI Laboratories
3229 Pine
Everett, WA 98201
Phone (206) 258-4548
(206) 292-9059 Seattle
(206) 259-6289 FAX

Chain of Custody / Laboratory Analysis Request

Date 7-19-94 Page 1 Of 1

PROJECT EVERETT, YMAC # 744001

PROJECT MANAGER CHRIS GENEROUS PH# 431-3566

REPORT/INVOICE MAILING ADDRESS 2424 170TH ST SE
BOTHELL, WA
QUEST

SAMPLER'S NAME CHRIS GENEROUS PH# 431-3566

SAMPLE I.D.	DATE	TIME	TYPE	LAB #	WTPH-G	WTPH-D ☐ 8015 MODIFIED ☐	WPTH-418.1	BTEX	WTPH-HCID	EPA 8020 ☐ 602 ☐	EPA 8010 ☐ 601 ☐	EPA 8240 ☐ 624 ☐ 8260 ☐	EPA 8270 ☐ 625 ☐	EPA 8080 ☐ 608 ☐ PCB only ☐ Pest only ☐	Metals Priority Pollutant ☐ RCRA ☐ TAL ☐	Metals Other (Specify)	TCLP Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herb ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. YB-1 @ 2.5'	7-19-94	9:30	SOIL																1	
2. YB-1 @ 7.5'	7-19-94	9:40	SOIL				X												1	
3. YB-1 @ 12.5'	7-19-94	9:50	SOIL																1	
4. YB-1 @ 20'	7-19-94	10:15	SOIL				X												1	
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

SPECIAL INSTRUCTIONS COMPOSITE SAMPLES YB-1 @ 2.5, 7.5, & 12.5 TO A SINGLE SAMPLE AND ANALYZE
24 HR. TAT

POSSIBLE SAMPLE HAZARDS

SIGNATURES (Name, Company, Date, and Time):

1. Relinquished By: [signature] QUEST 7-19-94 11:10
   Received By: [signature] CCL 7-19-94 11:10
2. Relinquished By:
   Received By:
3. Relinquished By:
   Received By:
4. Relinquished By:
   Received By: