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

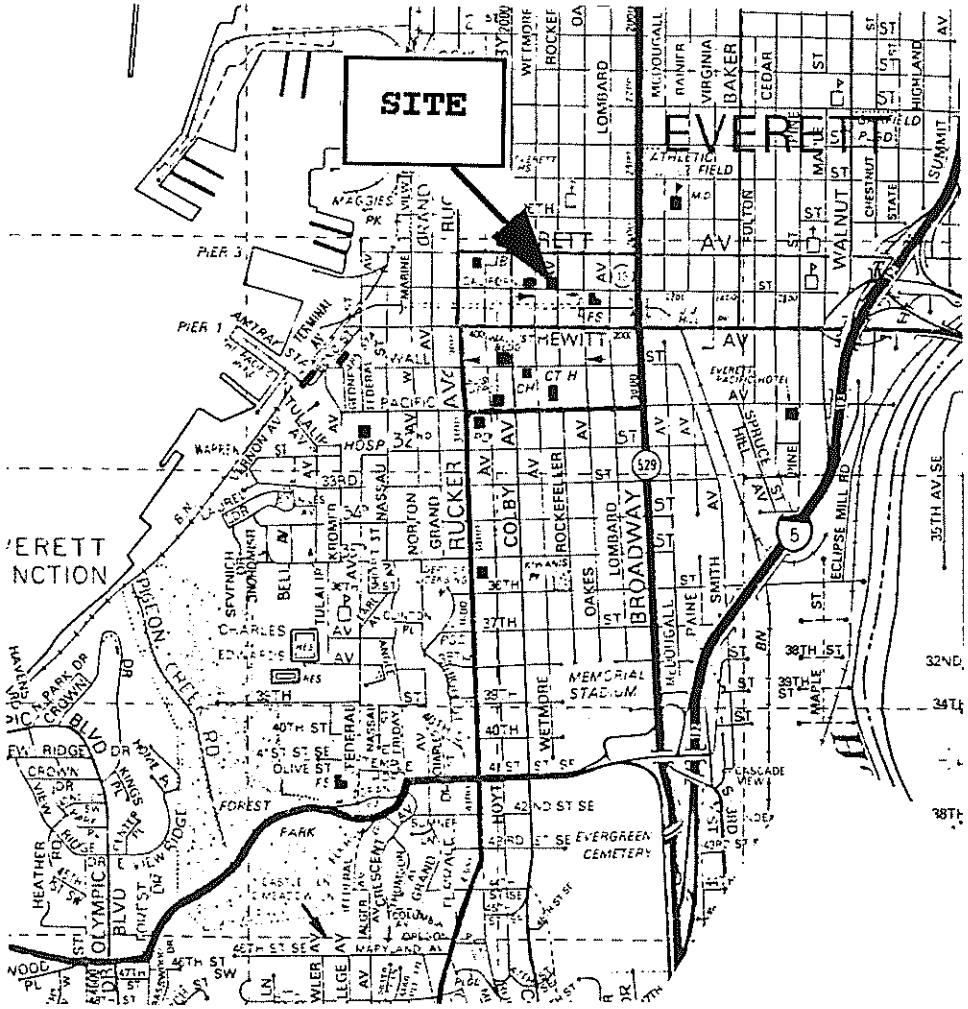
Chris Generous, R.G.
Principal Engineer

attachments:

ATTACHMENTS

ATTACHMENT A

FIGURES



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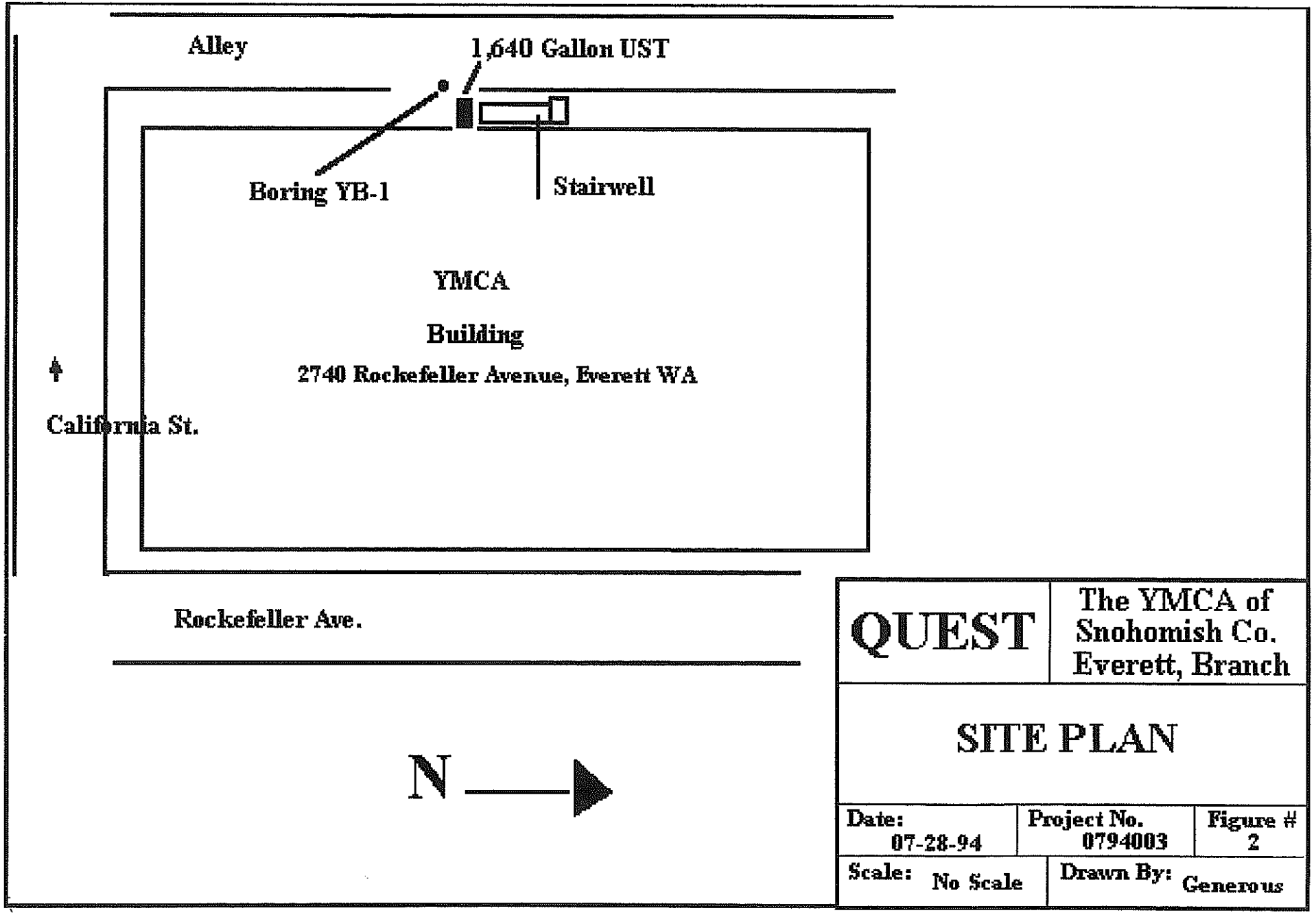
QUEST	The YMCA of Snohomish Co. Everett, Branch

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 clw
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.

116 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 (16")		**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: _____ Date: 7-21-94
Dave B. Phillips / Rodney R. Welch

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: CRH

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] CCIL 7-19-94 11:10
2. Relinquished By:
   Received By:
3. Relinquished By:
   Received By:
4. Relinquished By:
   Received By: