Task 2 Report – Underground Storage Tank (UST) Removal Observation Services
Snohomish County Campus Redevelopment
Everett, Washington

September 7, 2004

SHANNON & WILSON, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

At Shannon & Wilson, our mission is to be a progressive, well-managed professional consulting firm in the fields of engineering and applied earth sciences. Our goal is to perform our services with the highest degree of professionalism with due consideration to the best interests of the public, our clients, and our employees.

Submitted To:
Mr. Dale Moses
Snohomish County Facilities Management
3000 Rockefeller Avenue, M/S #404
Everett, Washington 98201-4046

By:
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21-1-12132-002

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

50 Years 1954 - 2004

September 7, 2004

Mr. Dale Moses
Snohomish County Facilities Management
3000 Rockefeller Avenue, M/S/ # 404
Everett, WA 98201-4046

RE: TASK 2 REPORT, UNDERGROUND STORAGE TANK (UST) REMOVAL OBSERVATION SERVICES, SNOHOMISH COUNTY CAMPUS REDEVELOPMENT, EVERETT, WASHINGTON

Dear Mr. Moses:

We are pleased to submit our Task 2 Report, UST Removal Observation Services, Snohomish County Campus Redevelopment, Everett, Washington. This report includes the results of recent site explorations in the vicinity of two recently removed 10,000-gallon USTs, and our associated observations, sampling results, and conclusions.

If you have any questions or require further information, please contact me at (206) 695-6840

Sincerely,

SHANNON & WILSON, INC.

Paul L. Van Horne, L.H.G.
Senior Hydrogeologist

PVH/pvh

Enclosure: Task 2 Report, Underground Storage Tank (UST) Removal Observation Services, Snohomish County Campus Redevelopment, Everett, Washington (3 copies)

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TASK 2 REPORT
UNDERGROUND STORAGE TANK (UST) REMOVAL OBSERVATION SERVICES
SNOHOMISH COUNTY CAMPUS REDEVELOPMENT
EVERETT, WASHINGTON

1.0 INTRODUCTION

This report presents a summary of the environmental services provided by Shannon & Wilson, Inc., during the removal of two unregistered, abandoned, gasoline underground storage tanks (USTs) from beneath the east entrance to the former Snohomish County Parking Garage, located at 3012 Oakes Avenue, Everett, Washington (Figures 1 and 2). This report documents the site activities performed during UST removal, presents laboratory results, and provides our conclusions regarding petroleum hydrocarbon contamination at the site. Our scope of services was as follows:

- Observe the removal of two approximately 10,000-gallon gasoline USTs.
- Perform field screening of soil samples to provide a preliminary assessment of the potential presence or absence of petroleum hydrocarbon contamination in the excavated soil and in the soil on the walls and bottom of the UST excavation.
- Collect soil samples for laboratory analysis to characterize the excavated soil and the remaining soil on the walls and bottom of the excavation.

This work was completed in general accordance with our proposal dated October 29, 2003, and Washington Department of Ecology (Ecology) guidelines. Mr. Dale Moses of Snohomish County authorized this work.

2.0 SITE DESCRIPTION AND BACKGROUND

The Snohomish County Campus and the adjacent (to the east) Snohomish County Jail site are currently undergoing redevelopment. The old parking garage has been demolished, the two subject USTs have been removed, and a new Administration Building is currently being constructed on the old parking garage site. Additionally, a new parking garage has been constructed immediately north of the tanks, the jail is being expanded on the east side of Oakes

Avenue, and a pedestrian tunnel has been constructed beneath Oakes Avenue between the jail expansion and the main campus.

The former UST site is located mid-block on the west side of Oakes Avenue between Pacific Avenue and Wall Street. The UST system was situated inside the entrance to the former Snohomish County Campus parking garage, under pavement. Prior to demolition, the pavement elevation over the USTs in the former parking garage entrance was approximately 140 feet, and the ground surface over the tanks was relatively level. The grade of adjacent Oakes Avenue slopes gently downward to the north at about 0.028 foot/foot.

Little documentation was available from Snohomish County, the City of Everett, or Ecology regarding the two USTs, apart from a construction drawing of the north end of the former garage (Harmon-Pray-Detrich, 1971) and the abandonment permit (Appendix A). A portion of the construction drawing has been adapted as Figure 3. The USTs, installed circa 1971, were closed in place and filled with lean concrete slurry on April 23, 1988. The fuel dispensers apparently were also removed years ago. The USTs are not listed on Ecology's Leaking Underground Storage Tank (LUST) list, but the county campus and the new parking garage are listed on the Ecology's Confirmed and Suspected Contaminated Sites (C&SCS) list, primarily due to widespread soil and groundwater contamination with highly weathered gasoline- and diesel-related contaminants (Site ID No. 7061078).

Observation and dewatering wells were installed prior to construction of the new parking garage, primarily around the new garage site perimeter (Figure 2). Static groundwater levels measured on November 25, 2002, were about elevation 118 feet at PW-10 and MW-2, the wells closest to the UST area; PW-10 was screened in and below advance outwash at about elevation 115 to 96 feet, and MW-2 was screened in and below advance outwash at about elevation 117 to 108 feet (Appendix B). Both of these wells were installed in November 2002 and are now abandoned. No fuel odor was noted during the drilling or pumping of these wells. A comparison of July 1, 2002, to November 25, 2002, groundwater levels at observation wells installed further from the UST site (B-11, B-14, B-17, and B-18) indicate that groundwater levels were about 2.8 feet higher in July, on average. We estimate that the direction of groundwater flow at the UST site was to the north/northeast prior to construction of the new parking garage.

HOS Construction installed a sanitary sewer manhole, designated MH # 3A, during January 2003, about 12 feet northwest of the former UST fill ports. On January 13, 2003, while excavating a 21-foot-deep trench for the installation of MH # 3A, HOS encountered apparent

gasoline contamination below a depth of about 12 to 13 feet, reportedly extending westward from about the west curb of Oakes Avenue. The zone of apparent gasoline contamination reportedly extended southwest to about midway between MH # 3A and MH # 2226, according to the general contractor (Mortenson Construction, Inc.), as approximately indicated on Figure 3. In order to assist Snohomish County with soil disposal, Shannon & Wilson, Inc. collected a soil sample on January 13, 2003, from the side of the sewer excavation, southwest of MH # 3A, at about 12 to 13 feet deep (about elevation 128 feet). This sample (# 09644 –Oakes Avenue Entrance – 128) contained elevated concentrations of weathered gasoline above Washington State Model Toxics and Control Act (MTCA) Method A cleanup levels (Table 1 and Appendix C). Our field inspector noted that the lower approximately one third of the excavation appeared gray and possibly stained and exhibited a fuel odor. The contaminated soils excavated from the sewer trench were disposed of as Class 3 material at Rinker Materials. Snohomish County assumed that contamination above MTCA Method A cleanup levels might be encountered in the vicinity of the two USTs. Therefore, Shannon & Wilson, Inc. was subsequently contracted to perform a site assessment in conjunction with the later planned removal of the USTs.

Kleinfelder, Inc., personnel were on site on January 17, 2003, to observe the excavation of contaminated soil and to collect samples during construction of the sewer tie-in between existing MH # 2226 and new MH # 3A. Kleinfelder, Inc. collected one sample (# SS-2-6') approximately midway between MH # 2226 and MH # 3A, at a depth of about 6 feet. No gasoline-related contamination was detected in this sample (Appendix D).

3.0 UNDERGROUND STORAGE TANK (UST) SITE ASSESSMENT ACTIVITIES

3.1 UST Removal and Soil Excavation

From December 2003 to April 2004, Shannon & Wilson, Inc. conducted an UST site assessment in conjunction with the removal of the tanks and excavation for new Administration Building footings. Appendix E presents the UST Site Assessment Checklist. During December 23 to 29, 2003, Wm. Dickson Construction (a subcontractor to Mortenson Construction, Inc.) used a trackhoe to remove the tank bedding soils and the UST system components and to load out excavated soil. We observed the tanks to be approximately 8 feet in diameter and 28 feet long, buried about 5 feet below grade, oriented east-west. The tanks were separated from each other by about 5 feet. Each tank had a capacity of approximately 10,000 gallons and was constructed of single-wall steel. The tanks appeared to be in good condition, with no rust holes observed.

No leak detection or secondary containment was associated with the tanks. The former fill ports were located in the sidewalk to the southeast of the USTs; the fill ports were apparently removed circa January 2003 as part of the installation of sewer manhole MH # 3A. The vent lines and remaining fill piping had been removed prior to our arrival at the site. During removal of the tanks, the upper approximately 4 to 5 feet of fill soils were removed and stockpiled (Stockpile 1, or SP-1). Then, fill soils from between the tanks were excavated and stockpiled (Stockpile 2, or SP-2). The tanks were then demolished, and the lean concrete was broken up and stockpiled in Stockpile 2. The concrete from within the tanks exhibited a moderate to strong gasoline odor, whereas the bedding soils generally exhibited slight to no gasoline odor. We estimate that about 360 cubic yards of bedding soil and about 104 cubic yards of lean concrete were removed from the excavation as the tanks were removed, with a total excavation depth beneath the tanks of about 14 feet.

Olfactory and visual evidence and a photoionization detector (PID) were used to screen soils for the presence of petroleum hydrocarbon contamination as they were removed from the excavations as well as within the stockpiles. Stockpile samples and excavation confirmation samples were collected where the PID exhibited the greatest response. Samples were collected at least 1 foot beneath the surface of the stockpiles and at least 6 inches into the excavation walls. Disposable sampling equipment (Nitrile gloves and stainless steel spoons) was used to transfer soils from sampling locations into laboratory-supplied, labeled glass jars. Samples were immediately placed on ice and transferred under chain-of-custody procedures to the laboratory for analysis. Laboratory data reports are presented in Appendix C.

Additional excavation in the vicinity of the former USTs was performed from January to April 2004, primarily for the placement of future Administration Building footings and utilities. The area directly beneath the former USTs was excavated to a maximum of about 15 feet during this time period. Northwest Construction, Inc., performed the excavation work, under subcontract to Mortenson Construction, Inc. We performed periodic soil screening and sampling in these excavations in order to document remaining conditions and facilitate soil disposal.

3.2 Soil Conditions

Soils encountered immediately around the two USTs consisted of tank and piping bedding fill (brown, slightly silty, gravelly, fine to medium and fine to coarse sand). This soil extended from just beneath the pavement to about 13 feet deep (about elevation 127 feet) within the UST area and about 2 to 3 feet deep (about elevation 138 to 137 feet) in the fill pipe area located

immediately east of the tanks. Native soils adjacent to and beneath the tanks consist of very dense, brown, gravelly, silty, fine to medium sand with no obvious fuel odor (till), to the maximum extent of excavation (about 7 to 15 feet deep, or about elevation 133 to 125 feet). Till soils with no fuel odor were also exposed in a nearby open-cut excavation for the pedestrian tunnel located in and west of Oakes Avenue, adjacent to the northeast corner of the tank area (Figure 3). The base of the tunnel excavation was at about elevation 123 feet in this area.

During April 2004, Northwest Construction, Inc. (under subcontract to Mortenson Construction, Inc.) resumed excavation in the vicinity of MH # 3A, located in the sidewalk between the former tanks and the fill ports. Soil conditions observed at this time in the vicinity of MH # 3A consisted of up to about 5 to 6 feet of surficial fill (brown, gravelly, silty sand) to about elevation 135 feet, underlain by till. This fill was likely placed during construction of MH # 3A in 2003. The till was interbedded with slightly silty to silty, gravelly, fine to medium sand layers below about 12 to 14 feet, indicating a transition to interbedded till and advance outwash at about elevation 128 to 126 feet. Logs of nearby borings drilled for the new parking garage indicate that advance outwash is present northeast of the tanks from about elevation 124/125 feet to 110/114 feet (observation well MW-2 and dewatering well PW-10, respectively). Fine-grained glaciolacustrine deposits are present beneath the advance outwash, based on these logs and observations made during excavation for the new parking garage.

We noted a gasoline odor and staining beginning at about 8 feet deep (about elevation 132 feet) in the east side and at about 12 feet deep (about elevation 128 feet) in the west side of a new sewer trench excavated southward from MH # 3A. The odor and staining continued to the base of the south sewer trench, about 19 feet deep (about elevation 121 feet). The southern extent of the odor and staining was to about 16 feet south of MH # 3A. A sample with a strong gasoline odor (# AB+24, AB+17, 123) was collected at about 18 feet deep (about elevation 122 feet) in the east sidewall of the south sewer trench. No odor was noted in the 13- to 20-foot-deep sewer trench excavated to the west of MH # 3A in April 2004, although some contamination had been apparent in this area during January 2003. Minor staining was observed in April 2004 at the north edge of the MH # 3A excavation at about 14 feet, or about elevation 126 feet (sample # AB+10, A5+13, 127).

3.3 Groundwater Conditions

No groundwater was present in the tank excavation, and no iron-stained horizons were observed that would indicate the past presence of groundwater. No evidence of groundwater was observed

to the maximum excavation depth of about 21 feet (about elevation 119 feet) in the sewer excavation. However, based on information from the nearby dewatering and observation wells, we anticipate that the wet season groundwater level was approximately 19 feet deep (about elevation 121 feet) in the vicinity of the tanks prior to the start of dewatering for the new parking garage. Based on our monitoring of wells installed around the parking garage perimeter, we estimate that groundwater levels in the UST and fill port areas have been lowered in excess of 13 feet through operation of the construction dewatering system for the new parking garage. This dewatering system began operation in November 2002. The base of the parking garage excavation is about elevation 73.5 feet at its southeast corner, near the former tank site; its permanent drainage system has permanently affected the local groundwater flow regime, acting as a local sink for groundwater within the advance outwash and underlying fine-grained glaciolacustrine soils. Discharge from the garage is to the sanitary sewer.

3.4 Sampling and Analysis

Table 1 presents the stockpile sample and excavation sidewall and bottom sample results, including those collected during the installation of MH # 3A. Analyses performed on each sample included gasoline (method Northwest Total Petroleum Hydrocarbon-Gasoline [NWTPH-Gx]) and related volatile compounds benzene, ethylbenzene, toluene, and xylenes. Analyses for methyl tertiary-butyl ether and total lead were also performed on selected soil samples. Testing was performed by CCI Analytical Laboratories, Inc. (CCI), of Everett, Washington, in accordance with CCI's in-house Quality Assurance/Quality Control Plan. Sample analyses were performed in accordance with Ecology guidelines and in accordance with method requirements. No factors appeared to adversely affect data quality.

The only detections of gasoline-related contaminants were as follows:

- Stockpile 2 (mixed tank concrete and bedding soil) sample "SP2-1," which contained 14 parts per million (ppm) "highly weathered gasoline" and 0.09 ppm toluene; both detections are below current MTCA Method A soil cleanup levels. Total lead was also run on this sample, and none was detected.
- Sewer trench excavation sidewall samples "09644 – Oakes Avenue Entrance – 128" and "AB+24, A5+17, 123," in which were detected "weathered gasoline" concentrations of 5,000 and 5,700 ppm, respectively, in excess of the MTCA Method A soil cleanup level. Additionally, toluene, ethylbenzene, and xylenes concentrations exceeded MTCA Method A levels in both samples, and benzene exceeded the MTCA Method A level for

the latter sample. (The detection limit for benzene for the former sample was 3 ppm, above the MTCA Method A cleanup level of 0.03 ppm.)

3.5 Soil Disposal

Wm. Dickson Construction disposed of stockpiled soils at Rinker Materials, under subcontract to Mortenson Construction, Inc. The UST excavation stockpile SP-1 was considered Class 2 material, and the UST soil/concrete mix stockpile SP-2 was considered Class 3 material. Soils with a gasoline odor excavated from around MH # 3A during January 2003 and April 2004 were disposed of as Class 3 material at Rinker by Northwest Construction.

4.0 CONCLUSIONS

It is our opinion that the removal of the two gasoline USTs from the former parking garage entrance was completed in general accordance with Ecology guidelines. Based on field observations and laboratory analyses during removal of the tanks, we conclude that a release from the tanks has not been confirmed. However, there may have been overfill spills and/or leaks from the UST fill ports in the adjacent sidewalk area, based on the distribution of gasoline-related soil contamination in the vicinity of MH # 3A that exceeds MTCA Method A cleanup levels. We were unable to directly observe the removal of the fill ports, so we cannot definitively state that the UST system fill ports were the source of the gasoline contamination identified in soil samples collected at about 12 and 18 feet deep. Remaining observed gasoline-related soil contamination appears to be concentrated southeast and southwest of MH # 3A, primarily in the sidewalls of the south sewer trench. This area is being capped by pavement as part of the new Administration Building construction. Groundwater was not encountered during excavation in the UST area; however, it is likely that groundwater was formerly present at or above about elevation 121 feet, which is about 6 feet below the former bottom elevation of the USTs. Groundwater in the advance outwash beneath the UST area and in the vicinity of MH # 3A now flows north/northwest to the new parking garage, where it is collected by the garage drainage system and discharged to the sanitary sewer. The Snohomish County Campus, including the new parking garage site, is currently undergoing remediation under Ecology's Voluntary Cleanup Program.

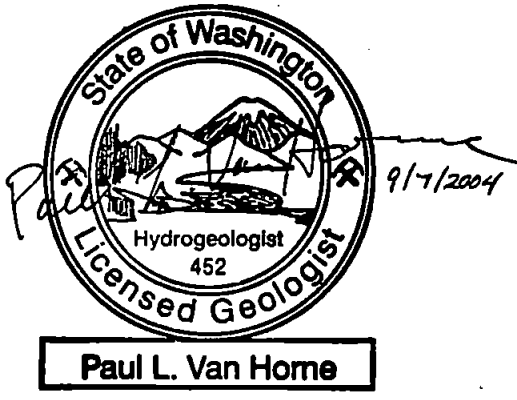
5.0 CLOSURE

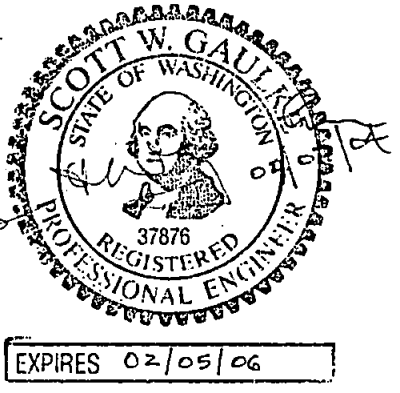
Shannon & Wilson, Inc. has prepared this report in a professional manner, using that level of skill and care normally exercised for similar projects under similar conditions by reputable and

competent environmental consultants currently practicing in the area, and in accordance with the terms and conditions set forth in our proposal dated October 29, 2003. The data presented in this report are based on limited research and sampling at the site and should be considered representative of the time of our site visits. Some areas of contamination that were not obvious during our site work could be present at the site. Shannon & Wilson, Inc. is not responsible for facts that were concealed, withheld, or not fully disclosed at the time this report was prepared. We also note that the facts and conditions referenced in this report may change over time, and the conclusions set forth here are described at the time of this report. We believe that the conclusions stated here are factual, but no guarantee is made or implied.

This report is for the exclusive use of Snohomish County and their representatives, and in no way guarantees that an agency or its staff will reach the same conclusions as Shannon & Wilson. Shannon & Wilson, Inc., has prepared Appendix F, "Important Information About Your Environmental Report," to assist you and others in understanding the uses and limitations of our reports.

SHANNON & WILSON, INC.





Paul L. Van Horne, L.H.G.
Senior Hydrogeologist

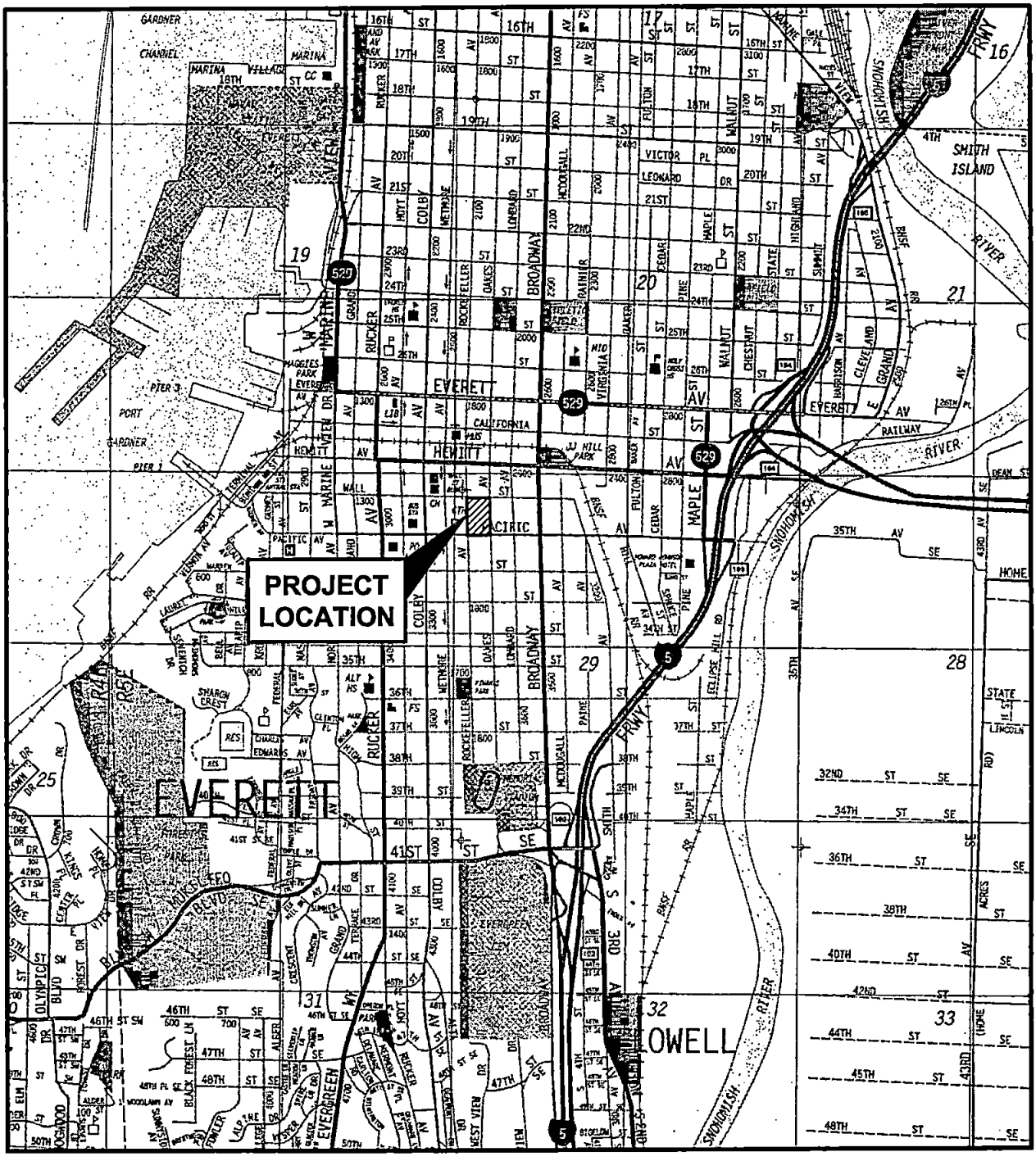
Scott W. Gaulke, P.E., L.H.G.
Senior Associate

PVH:SWG/pvh

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYSES

Sample Number	Sample Location	Approximate Sample Depth (feet)	Date Collected	Field PID Result (ppm)	USCS Soil Description	Gasoline Odor?	Results of Laboratory Analyses: Gasoline Range Organics NWTPH-Gx (MG/KG)	Benzene EPA-8021 (MG/KG)	Toluene EPA-8021 (MG/KG)	Ethyl-benzene EPA-8021 (MG/KG)	Xylenes EPA-8021 (MG/KG)	MTBE EPA-8021 (MG/KG)	Total Lead EPA-6010 (MG/KG)
MTCA Method A Cleanup Level							100/30***	0.03	7	6	9	0.1	250
SP1-1	Stockpile 1*	1	12/22/2003	3	SP-SM (Fill)	Slight	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SP1-2	Stockpile 1*	1	12/22/2003	2	SM (Mixed Fill & Till)	Slight	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SP1-3	Stockpile 1*	1	12/22/2003	3	SP-SM (Fill)	Slight	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SP1-4	Stockpile 1*	1	12/22/2003	7	SP-SM (Fill)	Slight	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SP1-5	Stockpile 1*	1	12/22/2003	4	SP-SM (Fill)	Slight	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SP2-1	Stockpile 2**	1	12/23/2003	37	SP-SM (Fill)	Moderate	14	ND<0.03	0.09	ND<0.05	ND<0.2	NT	ND<3.1
NUST-WW	West Wall Adjacent to West End of North UST	13	12/22/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
NUST-B	Beneath North UST	14	12/22/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SUST-B	Beneath South UST	13-14	12/23/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SUST-C	Field Duplicate of #SUST-B	13-14	12/23/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
BUST-B	Between USTs, Beneath Dispenser	14	12/23/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SUST-SW	South Wall Adjacent to South UST	13	12/23/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SUST-P	Beneath Elbow of South UST Fill Pipe	4	12/23/2003	10	SP-SM/SM (Fill/Till Interface)	Slight	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
NUST-NW	North Wall Adjacent to North UST	13-14	12/24/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
NUST-EW	East Wall, Near East End of North UST	13	12/24/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
SUST-SEW	South Wall Adjacent to South UST	14	12/24/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
NUST-P1	Beneath Elbow of North UST Fill Pipe	2.5	12/24/2003	1	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
NUST -P2	Beneath North UST Fill Pipe	2.5	12/24/2003	0	SM (Till)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
09644-Oakes Ave Entrance-128	West of Fill Port Vicinity	12-13	1/13/2003	350	SM (Till with Sand Seams)	Strong	5,000	ND<3	140	93	560	ND<10	NT
SS-2-6'	Approx. Midway Between MW#3A & MH#2226	6	1/17/2003	?	SM (Till)?	?	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	ND<0.1	NT
AB+10, A5+13, 127	Between Fill Port and USTs	14-14.5	4/8/2004	38	SM (Till with Sand Seams)	None	ND<3	ND<0.03	ND<0.05	ND<0.05	ND<0.2	NT	NT
AB+24, A5+17, 123	Northwest of Fill Port Vicinity	18	4/12/2004	>2,000	SP/SM (Outwash in Till)	Strong	5,700	8.0	74	75	400	NT	NT
Trip Blank 1	Trip Blank for 12/23/2003		12/23/2003				ND<0.05	ND<0.001	ND<0.001	ND<0.001	ND<0.003	NT	NT
Trip Blank 2	Trip Blank for 12/24/2003		12/24/2003				ND<0.05	ND<0.001	ND<0.001	ND<0.001	ND<0.003	NT	NT

Notes:
Sample matrices consisted of soil, with the exception of trip blanks.
* Soil stockpile 1 consisted of fill soil removed from above the tanks and fill piping.
** Soil stockpile 2 consisted primarily of CDF from inside the abandoned tanks, mixed with some fill soils from adjacent to the sides and ends of the tanks.
*** Gasoline MTCA Method A cleanup level 100 mg/kg with no benzene detected and with ethylbenzene, toluene, and zylenes <1% of gasoline mixture; 30 mg/kg for all other gasoline mixtures.
EPA Environmental Protection Agency
MG/KG Milligrams per kilogram
MTBE Methyl tertiary-butyl ether
MTCA Model Toxics Control Act
ND Analyte not detected at level above indicated reporting limit
NT Test not performed
NWTPH-Gx Northwest total petroleum hydrocarbons - gasoline range organics
UST Underground storage tank
? Unknown or not recorded



0 1/4 1/2 1

Scale in Miles

NOTE

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Snohomish County Campus Redevelopment
Administration Building UST Removal
Everett, Washington

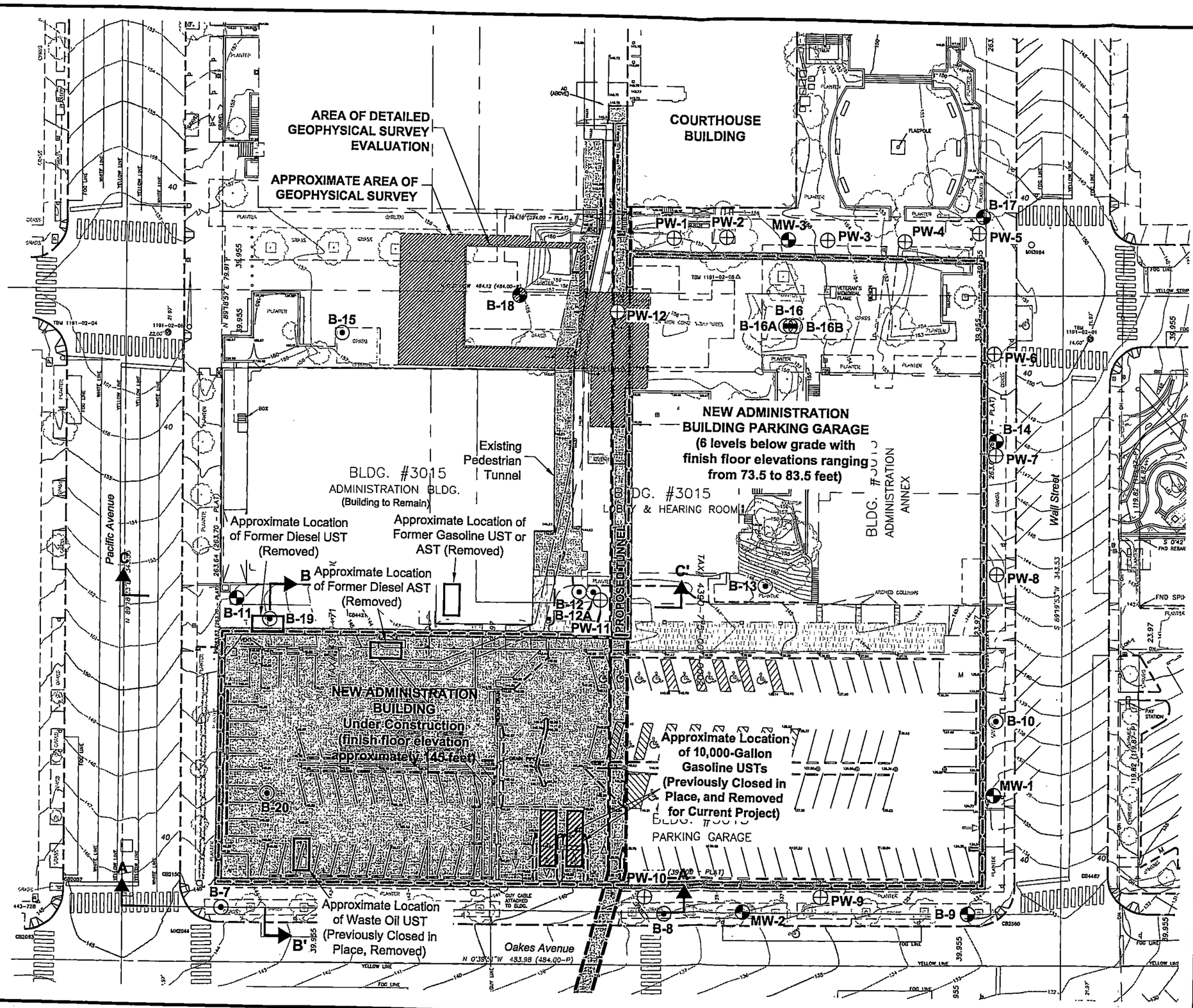
VICINITY MAP

September 2004 21-1-12132-002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 1

File: I:\Drafting\21\112132-002\21-1-12132-002 fig 1.dwg Date: 09-03-2004 Author: SAC



LEGEND

- Approximate Extent of Proposed Excavation
- B-7 — Boring Designation and Approximate Location
- B-9 — Boring Designation and Approximate Location, Completed as a Monitoring Well
- PW-1 — Boring Designation and Approximate Location, Completed as a Pumping Well
- A — Generalized Subsurface Profile Designation and Approximate Location

NOTES

1. This figure adapted from site topographic survey by Perteet Engineering, Inc., dated 6-2001. Elevation datum NAVD 88.
2. Boring locations are based on tape measurements from existing site features and should be considered approximate.

0 50 100

Scale in Feet

Snohomish County Campus Redevelopment
Administration Building UST Removal
Everett, Washington

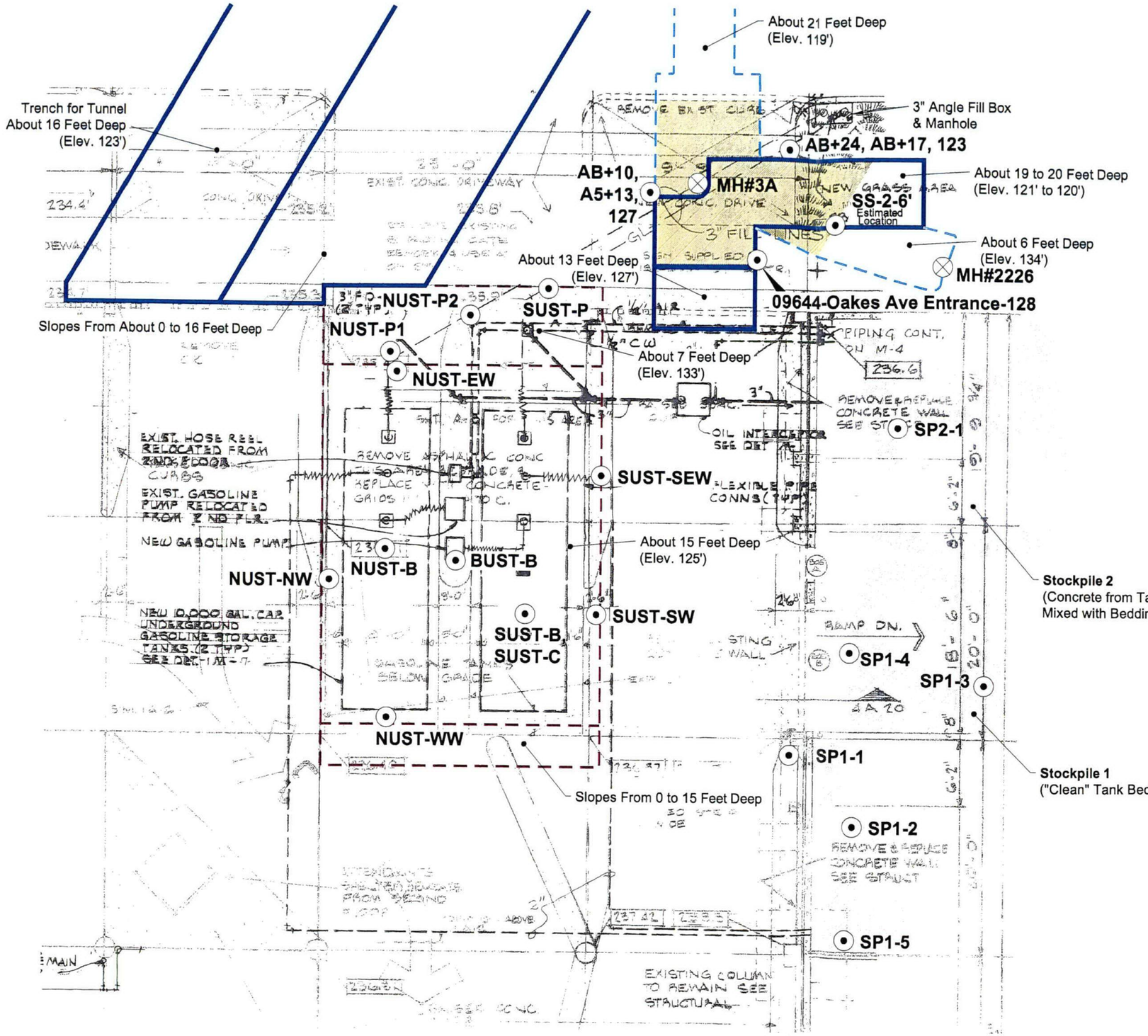
SITE AND EXPLORATION PLAN

September 2004 21-1-12132-002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 2

File: I:\Drafting\21\12132-002\21-1-12132-002 fig 2.dwg Date: 09-07-2004 Author: LR



LEGEND

SUST-SEW ⊙	Excavation Soil Sample Designation and Approximate Location
MH#2226 ⊗	Manhole Designation and Approximate Location
	Approximate Area of 2004 Tunnel and Sewer Excavations
	Approximate Area of December 2003 to March 2004 UST Excavation
	Approximate Area of January 2003 Excavation for MH#3A Installation
	Gasoline Odor/Staining Present During Excavation

NOTE

Figure adapted from drawing M2 by Harmon Pray Detrich Architects & Engineers, Job No. 7016, dated 4-7-1971.

0 10 20

Scale in Feet

Snohomish County Campus Redevelopment
Administration Building UST Removal
Everett, Washington

SITE DETAIL

September 2004 21-1-12132-002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. 3

File: I:\Drafting\21\12132-002\21-1-12132-002 fig 3 (9-04).dwg Date: 09-03-2004 Author: SAC

Appendix A

APPENDIX A

UNDERGROUND STORAGE TANK (UST) ABANDONMENT DOCUMENTATION

FIRE DEPARTMENT

City of Everett, Washington

PERMIT

No. 88-50

April 6, 1988
(Date)

TO WHOM IT MAY CONCERN:

By virtue of the provisions of the Uniform Fire Code as adopted by the city of Everett,

SNOHOMISH COUNTY (Firm Name) 3000 Oakes Avenue (Firm Address)

conducting a County parking garage (Business) having made application in due form, and as the conditions, surroundings, and arrangements are, in my opinion, such that the intent of the Uniform Fire Code can be observed, authority is hereby given and this permit is granted for

#18E To fill and abandon in place 2 10,000-gallon underground fuel tanks

This PERMIT is issued and accepted on condition that all Regulations now adopted, or that may hereafter be adopted, shall be complied with.

This permit does not take the place of any License required by law and is not transferable. Any changes in the use or occupancy of premises shall require a new permit.

Sam Preston

Chief, Fire Prevention Bureau

APPLICATION FOR A PERMIT

4-6-88
(Date)

To Chief of the Fire Prevention Bureau, Everett, Washington:

Application is hereby made by SNOHOMISH COUNTY (Firm Name)

for a permit to operate the COUNTY PARKING GARAGE (Type of Business) in or on the

premises at 3000 OAKES (Street or Avenue)

(Describe briefly what is to be done and state what hazardous materials are to be used)

#18E TO FILL AND ABANDON IN PLACE
2 10,000 GALLON UNDERGROUND FUEL
TANKS

Conditions, surroundings and arrangements to be in accordance with the Uniform Fire Code.

J.R. Reilly
Name of Applicant

3000 Oakes, Everett
Address of Applicant

Permit Number 88-50 Date Issued 4-6 19 88

Complete plans and construction details must be filed on all major projects and when requested by the Chief of the Fire Prevention Bureau.

Bid 42-I-88
Concrete Slurry

ASSOCIATED SAND & GRAVEL COMPANY, INC.

BOX 2037 • 6300 GLENWOOD AVE. • EVERETT, WASHINGTON 98203

READY MIX / AGGREGATE
PROPOSAL

Steve Pratt
F. Y. I.

Proposal to: Snohomish County Purchasing

Date: April 14, 1988

Project: Concrete Slurry for Fuel Tanks

Job No.:

Bid Date: April 14, 1988

We are pleased to quote on the following material, subject to the terms and conditions set forth below, and on the reverse side of this quotation:

BID ITEM NO.	APPROX. UNITS	DESCRIPTION	UNIT PRICE	F.O.B.
	100CY±	Lean Concrete Superplasticized Grout Mix #125	$33.00CY	Job
	As Required	Premium for Saturday Delivery 4 HR Min.	+45.00HR	

operating engineering

6 CY min. load size at quoted price. Smaller loads will be chargeable at an additional rate of $ 55.00/HR

6 Minutes/CY free unloading time. Additional truck standing time chargeable at a rate of $ 55.00/HR

QUOTATION GOOD THROUGH July 1, 19 88

Terms of Payment: 2% by 10th. Net 30 Days. 1½% per month service charge will be assessed on all delinquent accounts.

ACCEPTED this ____ day of ____, 19 ____ upon the terms and conditions contained on both sides hereof.

FIRM: ____

By: ____

Title: ____ Purchaser

Respectfully submitted:
ASSOCIATED SAND & GRAVEL CO., INC.

By: Tom Howerton

Title: Tom Howerton, Sales Manager, Ready Mix Dept. Seller

No. 0658

PumpCrete Inc.

THE Concrete Pumping Co.

12526 Evergreen Dr.
Lynnwood, WA 98037
282-6575, 251-5106 or 353-4160

BILLING NAME

ADDRESS

TELEPHONE DATE

JOB LOCATION

TIME ARRIVED ON JOB SITE

TIME LEAVING JOB SITE

TOTAL HOURS ON JOB

RATE PER HOUR $ 3 hr. minimum $

PLUS $ PER CU. YARD

TOTAL CUBIC YARDS PUMPED $

TRAVEL TIME @ $ PER HOUR HOURS $

EXTRA PIPES

SUB TOTAL $

A late will be placed on all bills 30 days overdue without further notice. 1½% interest will be charged on bill 30 days overdue.

STATE TAX $

TOTAL

Authorized By

COMMENTS

Appendix B

Appendix B

APPENDIX B

SELECTED BORING LOGS

SOIL DESCRIPTION Surface Elev.: Approx. 139.0 Ft. Datum:	Depth, Ft.
Concrete sidewalk. Very dense, brown, gravelly, silty, fine SAND; moist; compact; (Till) SM.	0.3
Very dense, brown, slightly silty, gravelly, fine to medium SAND; moist; (Advance Outwash) SP-SM.	14.0
Hard, gray, slightly clayey, slightly gravelly, sandy SILT; moist; ML. - Thin, moist to wet layer at about 28 feet. Interbedded below about 28 feet with moist, very dense, gray, silty, fine SAND and sandy SILT; SM/ML. - Moist to wet at about 38 to 40 feet.	25.0
Hard, gray, clayey SILT; moist; laminated; ML.	40.0
BOTTOM OF BORING COMPLETED 11/15/2002	47.0

Symbol | Samples | Ground Water | Depth, Ft.

Standard Penetration Resistance
(140 lb. weight, 30-inch drop)
▲ Blows per foot

0 20 40 60

5 10 15 20 25 30 35 40 45

Samples: 1 G, 2 G, 3 G, 4 G

Ground Water: 11/25/2002 ▼; During Drilling ▽

0 20 40 60

LEGEND

* Sample Not Recovered
G Grab Sample
Piezometer Screen and Sand Filter
Bentonite-Cement Grout
Bentonite Chips/Pellets
Bentonite Grout
▽ Ground Water Level ATD
▼ Ground Water Level in Well

● % Water Content
Plastic Limit ⊢●⊣ Liquid Limit
Natural Water Content

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface maerials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols, codes, and definitions.
5. USCS designation is based on visual-manual classification and selected lab testing.

Snohomish County Campus
Administration Building
Everett, Washington

LOG OF BORING PW-10

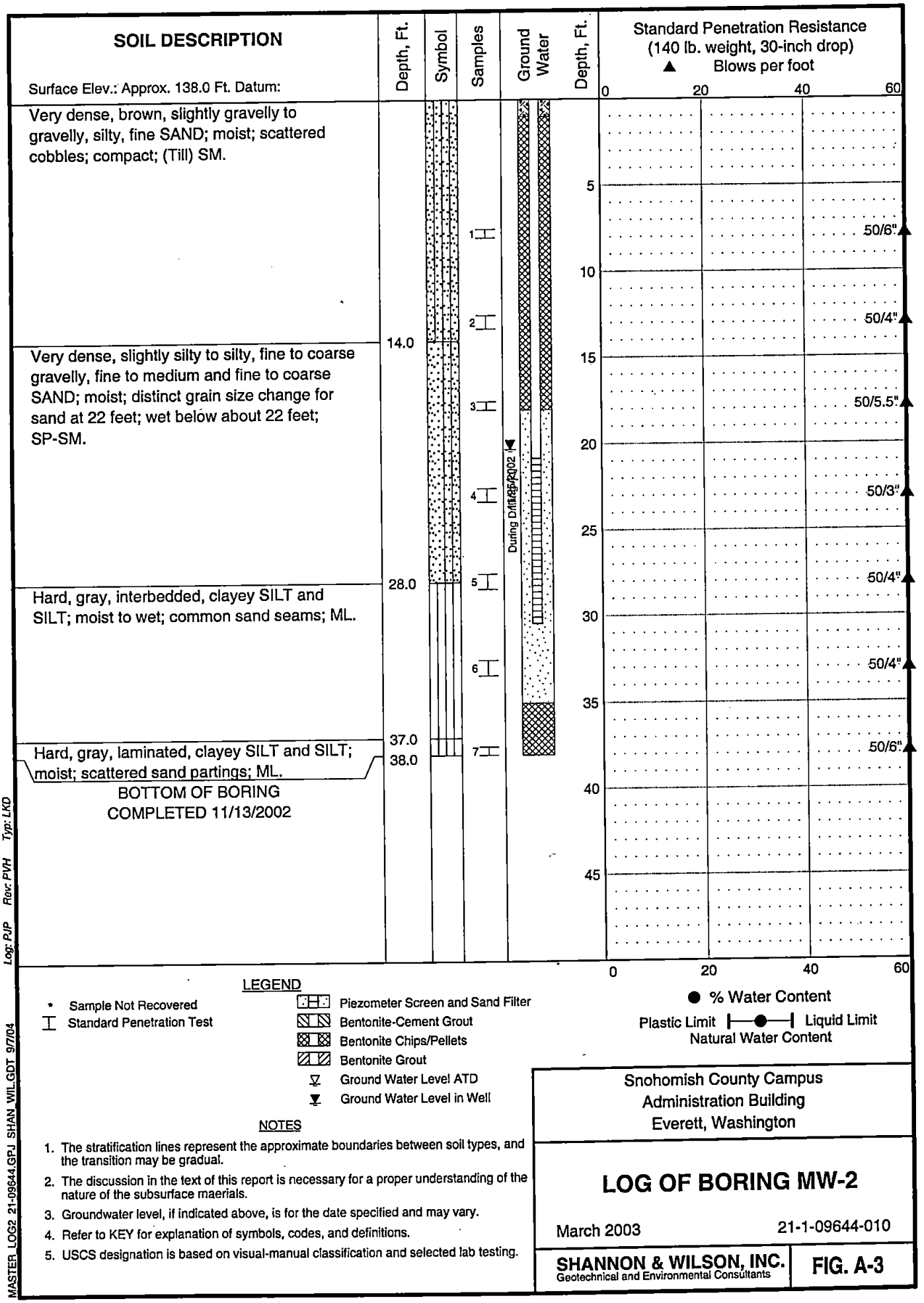
March 2003 21-1-09644-010

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. A-14

Log: PVH Rev: PVH Typ: LKD

MASTER LOG2 21-09644.GPJ SHAN_WIL.GDT 9/7/04

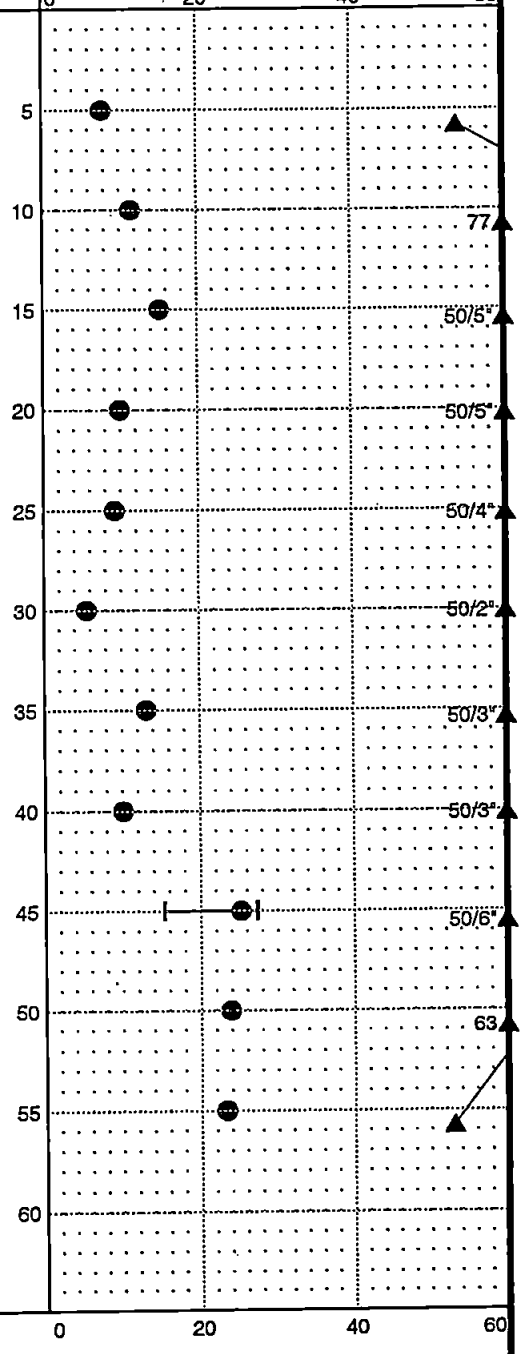

SOIL DESCRIPTION
Surface Elev.: Approx. 138.0 Ft. Datum:
Depth, Ft.
Symbol
Samples
Ground Water
Depth, Ft.
Standard Penetration Resistance
(140 lb. weight, 30-inch drop)
▲ Blows per foot
0
20
40
60
Very dense, brown, slightly gravelly to gravelly, silty, fine SAND; moist; scattered cobbles; compact; (Till) SM.
14.0
Very dense, slightly silty to silty, fine to coarse gravelly, fine to medium and fine to coarse SAND; moist; distinct grain size change for sand at 22 feet; wet below about 22 feet; SP-SM.
28.0
Hard, gray, interbedded, clayey SILT and SILT; moist to wet; common sand seams; ML.
37.0
38.0
Hard, gray, laminated, clayey SILT and SILT; moist; scattered sand partings; ML.
BOTTOM OF BORING
COMPLETED 11/13/2002
During Drilling 11/13/2002
1
2
3
4
5
6
7
5
10
15
20
25
30
35
40
45
50/6"
50/4"
50/5.5"
50/3"
50/4"
50/4"
50/6"
0
20
40
60
LEGEND
* Sample Not Recovered
Standard Penetration Test
Piezometer Screen and Sand Filter
Bentonite-Cement Grout
Bentonite Chips/Pellets
Bentonite Grout
Ground Water Level ATD
Ground Water Level in Well
● % Water Content
Plastic Limit
Liquid Limit
Natural Water Content
NOTES
1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface maerials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols, codes, and definitions.
5. USCS designation is based on visual-manual classification and selected lab testing.
Snohomish County Campus
Administration Building
Everett, Washington
LOG OF BORING MW-2
March 2003
21-1-09644-010
SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants
FIG. A-3
Log: PJP Rev: PVH Typ: LKD
MASTER_LOG2 21-09644.GPJ SHAN_WIL.GDT 9/7/04

SOIL DESCRIPTION Surface Elev.: Approx. 144.0 Ft. Datum:	Depth, Ft.
Dark gray-brown, gravelly, silty SAND; moist; SM (based on drill cuttings).	3.0
Very dense, gray-brown, slightly gravelly to gravelly, silty SAND; moist to wet at about 15 feet; trace of iron-oxide staining; (Glacial Till) SM.	
Very dense, gray, silty, fine to medium SAND; moist to wet; numerous fine sandy silt layers and seams, trace iron-oxide staining; (Advance Outwash) SM.	32.0
Very dense, gray, slightly fine gravelly, silty SAND; moist; (Advance Outwash) SM.	38.0
Hard, gray, silty CLAY; moist; scattered silty, fine sand partings and seams, scattered slickensides; (Glaciolacustrine Deposits) CL.	43.0
Hard, gray, slightly sandy, clayey SILT; moist; (Glaciolacustrine Deposits) ML.	53.0
BOTTOM OF BORING COMPLETED 2/22/2002	56.5
NOTE: Boring drilled using a hollow-stem auger.	

Symbol | Samples | Ground Water Depth, Ft.

None Observed During Drilling

Standard Penetration Resistance
(140 lb. weight, 30-inch drop)
▲ Blows per foot



LEGEND

* Sample Not Recovered

I Standard Penetration Test

● % Water Content

Plastic Limit ⊢●⊣ Liquid Limit

Natural Water Content

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface maerials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols, codes, and definitions.
5. USCS designation is based on visual-manual classification and selected lab testing.

Snohomish County Campus
Administration Building
Everett, Washington

LOG OF BORING B-7

March 2003 21-1-09644-002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

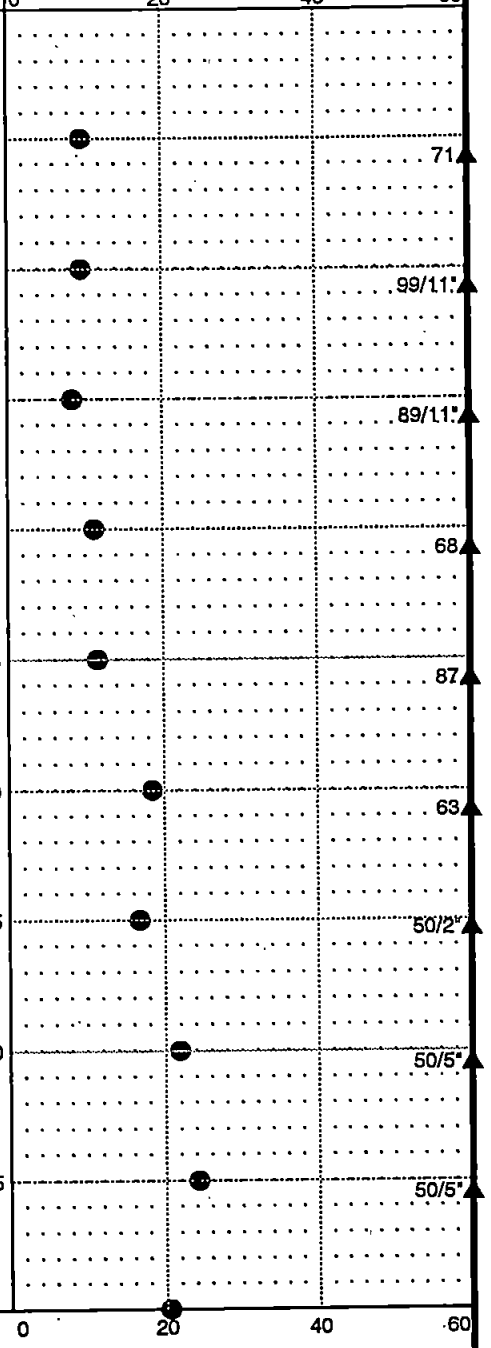
FIG. A-2

Log: ACT Rev: ACT Typ: LKD

MASTER_LOG2 21-09644.GPJ SHAN_WIL.GDT 9/7/04

SOIL DESCRIPTION Surface Elev.: Approx. 138.0 Ft. Datum:	Depth, Ft.	Symbol	Samples	Ground Water Depth, Ft.
Very dense, gray-brown, slightly gravelly to gravelly, silty SAND; moist; grass at surface, scattered iron-oxide staining; (Glacial Till) SM.			1, 2, 3, 4, 5, 6, 7, 8, 9	None Observed During Drilling
Very dense, gray, silty, fine SAND and slightly fine sandy SILT with fine sand seams; moist; (Advance Outwash) SM/ML.	31.0			
Very dense, gray, clayey SILT; moist to wet; scattered to numerous silty, fine sand partings and seams, scattered silty clay seams, locally trace of fine gravel; (Glaciolacustrine Deposits) ML.	38.0			
CONTINUED NEXT SHEET				

Standard Penetration Resistance
(140 lb. weight, 30-inch drop)
▲ Blows per foot



LEGEND

* Sample Not Recovered

I Standard Penetration Test

● % Water Content

Plastic Limit ⊢●⊣ Liquid Limit

Natural Water Content

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface maerials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols, codes, and definitions.
5. USCS designation is based on visual-manual classification and selected lab testing.

Snohomish County Campus
Administration Building
Everett, Washington

LOG OF BORING B-8

March 2003 21-1-09644-002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. A-3
Sheet 1 of 2

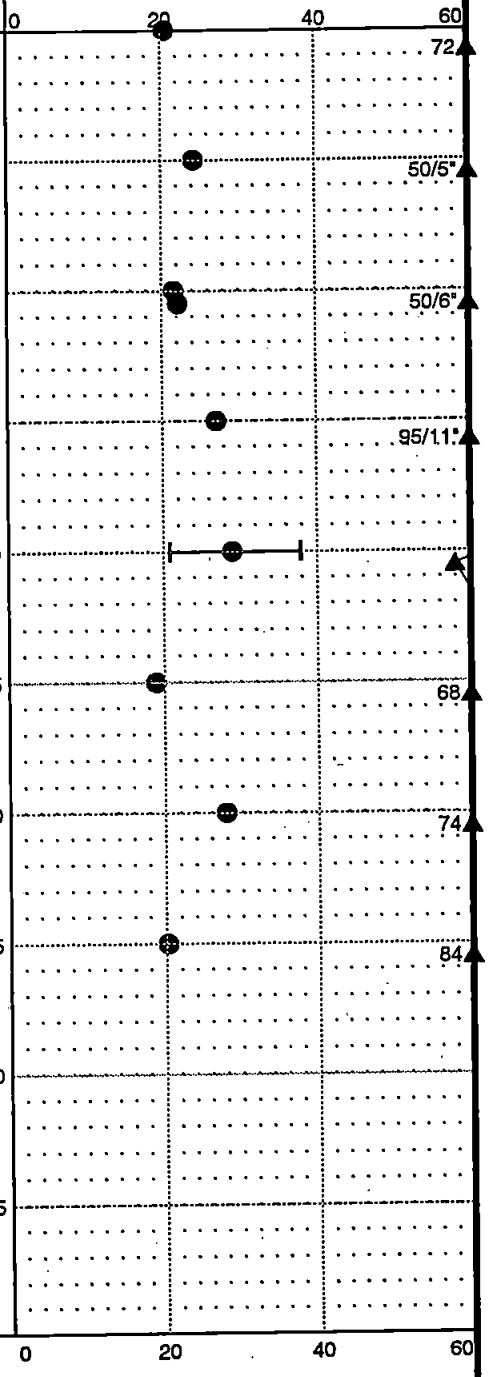
Log: ACT Rev: ACT Typ: LKD

MASTER LOG2 21-09644.GPJ SHAN_WIL.GDT 9/7/04

SOIL DESCRIPTION Surface Elev.: Approx. 138.0 Ft. Datum:	Depth, Ft.	Symbol	Samples	Ground Water Depth, Ft.
- grading to silty CLAY and clayey SILT; trace of gravel; CL/ML - sample 11 interbedded to laminated silty CLAY and fine sandy SILT; CL/ML			10, 11	
Very dense, gray, slightly silty to silty, fine SAND; wet; SM/SP-SM.	60.5		12	
Hard, gray, silty CLAY; moist to wet; scattered to numerous silty, fine sand partings and seams; (Glaciolacustrine Deposits) CL.	63.0		13, 14, 15, 16, 17	
BOTTOM OF BORING COMPLETED 2/26/2002	86.0			

NOTES:

1. Samples 14 through 17 were driven only 12 inches; the blow count shown represents two times the second 6-inch increment blow count.
2. Hollow-stem auger advanced to 5 feet, then mud-rotary techniques were used to drill the hole.



LEGEND

- Sample Not Recovered
- Standard Penetration Test

NOTES

1. The stratification lines represent the approximate boundaries between soil types, and the transition may be gradual.
2. The discussion in the text of this report is necessary for a proper understanding of the nature of the subsurface maerials.
3. Groundwater level, if indicated above, is for the date specified and may vary.
4. Refer to KEY for explanation of symbols, codes, and definitions.
5. USCS designation is based on visual-manual classification and selected lab testing.

Snohomish County Campus
Administration Building
Everett, Washington

LOG OF BORING B-8

March 2003 | 21-1-09644-002

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

FIG. A-3
Sheet 2 of 2

Log: ACT Rev: ACT Typ: LKD

MASTER_LOG2 21-09644.GPJ SHAN_WIL.GDT 9/7/04

Appendix C

Appendix C

APPENDIX C

LABORATORY DATA REPORTS

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104
CCIL SAMPLE #: 1
DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: NUST-WW 12/22/03 1311

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/22/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/22/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/22/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104
CCIL SAMPLE #: 2
DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SP1-1 12/22/03 1333

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/22/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/22/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/22/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104
CCIL SAMPLE #: 3
DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SP1-2 12/22/03 1342

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/22/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/22/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/22/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104
CCIL SAMPLE #: 4
DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SP1-3 12/22/03 1351

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/22/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/22/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/22/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104
CCIL SAMPLE #: 5
DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SP1-4 12/22/03 1347

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/22/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/22/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/22/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104
CCIL SAMPLE #: 6
DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SP1-5 12/22/03 1338

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/22/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/22/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/22/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/22/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 12/23/03
CCIL JOB #: 312104

DATE RECEIVED: 12/22/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
312104-01	NWTPH-GX	TFT	92
312104-01	EPA-8021	TFT	90
312104-02	NWTPH-GX	TFT	88
312104-02	EPA-8021	TFT	87
312104-03	NWTPH-GX	TFT	89
312104-03	EPA-8021	TFT	87
312104-04	NWTPH-GX	TFT	90
312104-04	EPA-8021	TFT	88
312104-05	NWTPH-GX	TFT	101
312104-05	EPA-8021	TFT	101
312104-06	NWTPH-GX	TFT	91
312104-06	EPA-8021	TFT	91

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

Analytical Laboratories, Inc.
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Laboratory Analysis Request

Date 12/22/03 Page 1 Of 1

PROJECT ID:	21-1-12132-002
REPORT TO COMPANY:	Shannon & Wilson, Inc.
PROJECT MANAGER:	Scott Gaulke / Paul VanHorne
ADDRESS:	400 N 34th St Ste 100
	Seattle WA 98103
PHONE:	206-632-8020 FAX: 206-695-6777
P.O. NUMBER:	E-MAIL: PVH@SHANWIL.COM
INVOICE TO COMPANY:	S+W
ATTENTION:	Scott Gaulke
ADDRESS:	Same

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX NWTPH-G/BTEX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Total Pb	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. NUST-WW	12/22/03	1311	S(4oz)	1			✓											Hold			1	
2. SP1-1		1333		2			✓														1	
3. SP1-2		1342		3			✓														1	
4. SP1-3		1351		4			✓														1	
5. SP1-4		1347		5			✓														1	
6. SP1-5		1338		6			✓														1	
7.																						
8.																						
9.																						
10.																						

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Paul VanHorne, S+W, 12/22/03, 1442
   Received By: CCIL 12/22/03 1442
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: X Standard | 3 | 1 * | SAME DAY

OTHER: Specify: * Rush (by 12/23 AM) the SP1 samples, if possible - particularly SP1-4 - for NWTPH-G/BTEX

* Turnaround request less than standard may incur Rush Charges

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116
CCIL SAMPLE #: 1
DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: TRIP BLANK 2 12/24/03 0800

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	UG/L	1/5/04	LAH
BENZENE	EPA-8021	ND(<1)	UG/L	1/5/04	LAH
TOLUENE	EPA-8021	ND(<1)	UG/L	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<1)	UG/L	1/5/04	LAH
XYLENES	EPA-8021	ND(<3)	UG/L	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 50 UG/L

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

APPROVED BY: 

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116
CCIL SAMPLE #: 2
DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: NUST-NW 12/24/03 0748

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116
CCIL SAMPLE #: 3
DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: NUST-EW 12/24/03 0927

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116
CCIL SAMPLE #: 4
DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SUST-SEW 12/24/03 0941

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY: 

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CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116
CCIL SAMPLE #: 5
DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: NUST-P1 12/24/03 1048

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116
CCIL SAMPLE #: 6
DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: NUST-P2 12/24/03 1126

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

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CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/6/04
CCIL JOB #: 312116

DATE RECEIVED: 12/24/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
312116-01	NWTPH-GX	TFT	110
312116-01	EPA-8021	TFT	101
312116-02	NWTPH-GX	TFT	91
312116-02	EPA-8021	TFT	82
312116-03	NWTPH-GX	TFT	91
312116-03	EPA-8021	TFT	81
312116-04	NWTPH-GX	TFT	83
312116-04	EPA-8021	TFT	75
312116-05	NWTPH-GX	TFT	88
312116-05	EPA-8021	TFT	84
312116-06	NWTPH-GX	TFT	88
312116-06	EPA-8021	TFT	84

APPROVED BY:

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CCI Analytical Laboratories
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Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Laboratory Analysis Request

Date 12/24/2003 Page 1 Of 1

PROJECT ID:	21-1-12132-002
REPORT TO COMPANY:	Shannon & Wilson, Inc.
PROJECT MANAGER:	Scott Gaulke / Paul Van Horne
ADDRESS:	400 N. 34th St., Ste. 100
	Seattle, WA 98103
PHONE: 206-632-8020	FAX: 206-695-6777
P.O. NUMBER:	E-MAIL: pvh@shanwil.com
INVOICE TO COMPANY:	Same
ATTENTION:	
ADDRESS:	

	SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1.	Trip Blank 2	12/24/03	0800	(W) 40ml VOA w/ HCl	1
2.	NUST-NW		0748	(S) 4oz	2
3.	NUST-EW		0927		3
4.	SUST-SEW		0941		4
5.	NUST-P1		1048		5
6.	NUST-P2		1126		6
7.					
8.					
9.					
10.					

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX NWTPH-G/BTEX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Total Lead	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
		✓													2	
		✓											Hold		1	
		✓													1	
		✓													1	
		✓													1	
		✓													1	

OTHER (Specify)

REPORT COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Paul Van Horne, SFW, 12/24/03, 12:17
   Received By: Shanda Tawan CCAL 12/24/03 12:17
2. Relinquished By: _____
   Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: ~~5~~ Standard | 3 | 1 | SAME DAY

OTHER: Specify: _____

* Turnaround request less than standard may incur Rush Charges

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 1
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: NUST-B 12/22/03 1528

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/31/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/31/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/31/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/31/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/31/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 2
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SUST-SW 12/23/03 1008

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/31/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/31/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/31/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/31/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/31/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 3
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SUST-C 12/23/03 0942

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/1/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/1/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/1/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/1/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/1/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 4
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SUST-P 12/23/03 1348

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/1/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/1/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/1/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/1/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/1/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/12/04
CCIL JOB #: 312112
CCIL SAMPLE #: 5
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SP2-1 12/23/03 1025

REPORT AMENDED TO INCLUDE ADDITIONAL PARAMETER

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	14	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	0.09	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH
LEAD	EPA-6010	ND(<3.1)	MG/KG	1/9/04	RAB

NOTES: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY HIGHLY WEATHERED GASOLINE
VOLATILE RANGE RESULT BIASED HIGH DUE TO SEMIVOLATILE RANGE PRODUCT OVERLAP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 6
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: BUST-B 12/23/03 0956

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/5/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/5/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/5/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 7
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: SUST-B 12/23/03 0941

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	12/31/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	12/31/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	12/31/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	12/31/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	12/31/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY:

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112
CCIL SAMPLE #: 8
DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: TRIP BLANK 12/23/03 1430

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	UG/L	1/5/04	LAH
BENZENE	EPA-8021	ND(<1)	UG/L	1/5/04	LAH
TOLUENE	EPA-8021	ND(<1)	UG/L	1/5/04	LAH
ETHYLBENZENE	EPA-8021	ND(<1)	UG/L	1/5/04	LAH
XYLENES	EPA-8021	ND(<3)	UG/L	1/5/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 50 UG/L

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

APPROVED BY:

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ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N 34TH ST., STE 100
SEATTLE, WA 98103

DATE: 1/5/04
CCIL JOB #: 312112

DATE RECEIVED: 12/23/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SCOTT GAULKE/PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
312112-01	NWTPH-GX	TFT	88
312112-01	EPA-8021	TFT	80
312112-02	NWTPH-GX	TFT	92
312112-02	EPA-8021	TFT	84
312112-03	NWTPH-GX	TFT	93
312112-03	EPA-8021	TFT	83
312112-04	NWTPH-GX	TFT	96
312112-04	EPA-8021	TFT	87
312112-05	NWTPH-GX	TFT	93
312112-05	EPA-8021	TFT	84
312112-06	NWTPH-GX	TFT	90
312112-06	EPA-8021	TFT	86
312112-07	NWTPH-GX	TFT	101
312112-07	EPA-8021	TFT	87
312112-08	NWTPH-GX	TFT	109
312112-08	EPA-8021	TFT	102

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

Analytical Laboratories, Inc.
5020 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain of Custody
Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 312112

Date 12/23/03 Page 1 Of 1

PROJECT ID:	21-1-12132-002
REPORT TO COMPANY:	Shannon & Wilson, Inc.
PROJECT MANAGER:	Scott Gaulke / Paul VanHorne
ADDRESS:	400 N 34th st ste 100
	Seattle wa 98103
PHONE:	206-632-8020 FAX: 206-695-~~8811~~ 6777
P.O. NUMBER:	E-MAIL: pvh@shanwil.com
INVOICE TO COMPANY:	Same
ATTENTION:	
ADDRESS:	

	SAMPLE I.D.	DATE	TIME	TYPE	LAB#
1.	NUST-B	12/22/03	1528	Hor GS S	1
2.	SUST-SW	12/23/03	1008		2
3.	SUST-C		0942		3
4.	SUST-P		1348		4
5.	SP2-1		1025		5
6.	BUST-B		0956		6
7.	SUST-B		0941		7
8.	Trip Blank 1	12-23-03	1430	Hcl VOA W	8
9.					
10.					

ANALYSIS REQUESTED

NWTPH-HCID	NWTPH-DX	NWTPH-GX w/ BTEX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify) Total Pb	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
		✓											Hold		1	
		✓													1	
		✓													1	
		✓													1	
		✓											X		1	
		✓													1	
		✓													1	
		✓													2	

SPECIAL INSTRUCTIONS Pb added 1/8/04 per Paul

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Paul VanHorne, S&W, 12/23/03, 1507
   Received By: [illegible] CCIAL 12/23/03 1507
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis: X Standard | 3 | 1 | SAME DAY

OTHER: Specify:

* Turnaround request less than standard may incur Rush Charges

LABORATORY COPY

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LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N. 34TH STREET, SUITE 100
SEATTLE, WA 98103

DATE: 1/14/03
CCIL JOB #: 301045
CCIL SAMPLE #: 1
DATE RECEIVED: 1/13/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: AGNES TIRAO

CLIENT PROJECT ID: 21-1-09644-011 SNO CO
CLIENT SAMPLE ID: 09644-OAKES AVE. ENTRANCE - 128 1/13/03 10:00AM

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	5000	MG/KG	1/14/03	LAH
MTBE***	EPA-8021	ND(<10)	MG/KG	1/14/03	LAH
BENZENE	EPA-8021	ND(<3)	MG/KG	1/14/03	LAH
TOLUENE	EPA-8021	140	MG/KG	1/14/03	LAH
ETHYLBENZENE	EPA-8021	93	MG/KG	1/14/03	LAH
XYLENES	EPA-8021	560	MG/KG	1/14/03	LAH

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED GASOLINE

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 300 MG/KG

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

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GC/MS ANALYSIS

APPROVED BY: _____

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N. 34TH STREET, SUITE 100
SEATTLE, WA 98103

DATE: 1/14/03
CCIL JOB #: 301045

DATE RECEIVED: 1/13/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: AGNES TIRAO

CLIENT PROJECT ID: 21-1-09644-011 SNO CO

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
301045-01	NWTPH-GX	TFT	*
301045-01	EPA-8021	TFT	*
301045-02	NWTPH-GX	TFT	43**
301045-02	EPA-8021	TFT	29**

* SURROGATE DILUTED OUT OF CALIBRATION RANGE
** SURROGATE OUTSIDE OF CONTROL LIMITS OF 50-150% DUE TO MATRIX INTERFERENCE

APPROVED BY: 

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SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Laboratory CCI

400 N. 34th Street, Suite 100, Seattle, WA 98103, (206) 632-8020
2055 Hill Road, Fairbanks, AK 99709, (907) 479-0600
2255 S.W. Canyon Road, Portland, OR 97201-2498, (503) 223-6147
2043 Westport Center Drive, St. Louis, MO 63146-3564, (314) 392-0050
5430 Fairbanks Street, Suite 3, Anchorage, AK 99518, (907) 561-2120
1200 17th Street, Suite 1024, Denver, Co 80202, (303) 825-3800
303 Wellsian Way, Richland, WA 99352, (509) 946-6309

Analysis Parameters/Sample Container Description (include preservative if used)

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	G/8260						Total Number of Containers	Remarks/Matrix
09644-Oaks Ave Entrance-128		10:00a	1/13/03			X							Soil
09644-D-3.3-121		3:00pm	1/13/03			X							Soil

Project Information

Project Number: 21-1-09644-011
Project Name: Snoho. County
Contact: Agnes Tirao
Ongoing Project? Yes ☒ No ☐
Sampler: BSR

Sample Receipt

Total Number of Containers: 2
COC Seals/Intact? Y/N/NA: N/A
Received Good Cond./Cold: Yes
Delivery Method: dropped off by S&W (attach shipping bill, if any)

Instructions

Requested Turnaround Time: 24 hrs
Special Instructions: Contact Agnes w/ results as soon as known

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.
Signature: Brian Rzepnick Time: 4:00pm	Signature: Time:	Signature: Time:
Printed Name: Brian Rzepnick Date: 1/13/03	Printed Name: Date:	Printed Name: Date:
Company: Shannon & Wilson	Company:	Company:

Received By: 1.	Received By: 2.	Received By: 3.
Signature: Rick Bayer Time: 4:30	Signature: Time:	Signature: Time:
Printed Name: Rick Bayer Date: 1/13/03	Printed Name: Date:	Printed Name: Date:
Company: CCI AK	Company:	Company:

Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report
Yellow - w/shipment - for consignee files
Pink - Shannon & Wilson - Job File

F-19-91/UR

No. [illegible]

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N. 34TH STREET, SUITE 100
SEATTLE, WA 98103

DATE: 4/14/04
CCIL JOB #: 404038
CCIL SAMPLE #: 1
DATE RECEIVED: 4/8/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002
CLIENT SAMPLE ID: AB+10, A5+13, 127 4/8/04 1122

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	4/9/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	4/9/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	4/9/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	4/9/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	4/9/04	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

APPROVED BY: CNL

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CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N. 34TH STREET, SUITE 100
SEATTLE, WA 98103

DATE: 4/14/04
CCIL JOB #: 404038

DATE RECEIVED: 4/8/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
404038-01	NWTPH-GX	TFT	75
404038-01	EPA-8021	TFT	79

APPROVED BY:

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LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N. 34TH STREET, SUITE 100
SEATTLE, WA 98103

DATE: 4/16/04
CCIL JOB #: 404053
CCIL SAMPLE #: 1
DATE RECEIVED: 4/12/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002 SNOH CO
CLIENT SAMPLE ID: AB+24, A5+17, 123 4/12/04 0953

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	5700	MG/KG	4/15/04	DLC
BENZENE	EPA-8021	8.0	MG/KG	4/14/04	DLC
TOLUENE	EPA-8021	74	MG/KG	4/15/04	DLC
ETHYLBENZENE	EPA-8021	75	MG/KG	4/15/04	DLC
XYLENES	EPA-8021	400	MG/KG	4/15/04	DLC

NOTE: CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED GASOLINE

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 600 MG/KG

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

APPROVED BY:

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CCI
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LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: SHANNON & WILSON, INC.
400 N. 34TH STREET, SUITE 100
SEATTLE, WA 98103

DATE: 4/16/04
CCIL JOB #: 404053

DATE RECEIVED: 4/12/04
WDOE ACCREDITATION #: C142

CLIENT CONTACT: PAUL VAN HORNE

CLIENT PROJECT ID: 21-1-12132-002 SNOH CO

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
404053-01	NWTPH-GX	TFT	*
404053-01	EPA-8021	TFT	*

* SURROGATE DILUTED OUT OF CALIBRATION RANGE

APPROVED BY:

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CHAIN-OF-CUSTODY RECORD

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

400 N. 34th Street, Suite 100
Seattle, WA 98103
(206) 632-8020

2043 Westport Center Drive
St. Louis, MO 63146-3564
(314) 392-0050

303 Wellsian Way
Richland, WA 99352
(509) 946-6309

2055 Hill Road
Fairbanks, AK 99709
(907) 479-0600

5430 Fairbanks Street, Suite 3
Anchorage, AK 99518
(907) 561-2120

2255 S.W. Canyon Road
Portland, OR 97201-2498
(503) 223-6147

1200 17th Street, Suite 1024
Denver, Co 80202
(303) 825-3800

Laboratory CCI

Attn:

Analysis Parameters/Sample Container Description
(include preservative if used)

Sample Identity	Lab No.	Time	Date Sampled	Comp.	Grab	NWTPH-Gx/BTEX (4oz GJ)						Total Number of Containers	Remarks/Matrix
AB+24, AS+17, 12B		0953	4/12/04		X	✓						1	Iced / Soil

Project Information

Project Number: 21-1-12132-002
Project Name: Snoh Co.
Contact: Paul Van Horne
Ongoing Project? Yes ☒ No ☐
Sampler: Paul Van Horne

Sample Receipt

Total Number of Containers:
COC Seals/Intact? Y/N/NA:
Received Good Cond./Cold:
Delivery Method: Co. Personnel
(attach shipping bill, if any)

Instructions

Requested Turnaround Time: Standard
Special Instructions:

Distribution: White - w/shipment - returned to Shannon & Wilson w/ laboratory report
Yellow - w/shipment - for consignee files
Pink - Shannon & Wilson - Job File

Relinquished By: 1.	Relinquished By: 2.	Relinquished By: 3.
Signature: Paul Van Horne Time: 1534	Signature: Time:	Signature: Time:
Printed Name: Paul Van Horne Date: 4/12/04	Printed Name: Date:	Printed Name: Date:
Company: S+W	Company:	Company:

Received By: 1.	Received By: 2.	Received By: 3.
Signature: Time: 1534	Signature: Time:	Signature: Time:
Printed Name: Date: 4-12-04	Printed Name: Date:	Printed Name: Date:
Company: CCIAL	Company:	Company:

F-19-91/UR

No. 026214

APPENDIX D

COMMUNICATION FROM KLEINFELDER, INC.

KLEINFELDER, INC.

To: Paul Van Horne
Name
Shannon & Wilson
Company
Seattle, Washington
Address or branch office
206-695-6777
Fax number

Date: April 1, 2004

Time: 11:36 AM

Total Pages *(including cover sheet)*: 2

From: James M. Schmidt, P.E.
Name

KLEINFELDER, INC.
2405 – 140th Ave. NE, Suite A101
Bellevue, Washington 98005
Phone: (425) 562-4200
Fax: (425) 562-4201
www.kleinfelder.com

Original Will Follow: ☐

Original Will Not Follow: ☑

Sent By: Jim

Special Instructions:

Paul, Attached is a rough sketch of where the two soil samples were collected. We were not provided with a site plan prior to our services being terminated, so the attached is the best drawing we have at this time. The sample depths below ground surface are shown in the attached sketch. Please call me if you have any questions. Jim

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If there are any problems receiving this transmission, please call (425) 562-4200.

KLEINFELDER

SHEET ___ OF ___

PROJECT San Quentin PROJECT NO. ___

SUBJECT Sample locations BY A. Spreckelsen DATE ___

REVIEWED BY ___ DATE ___

Fig. 1

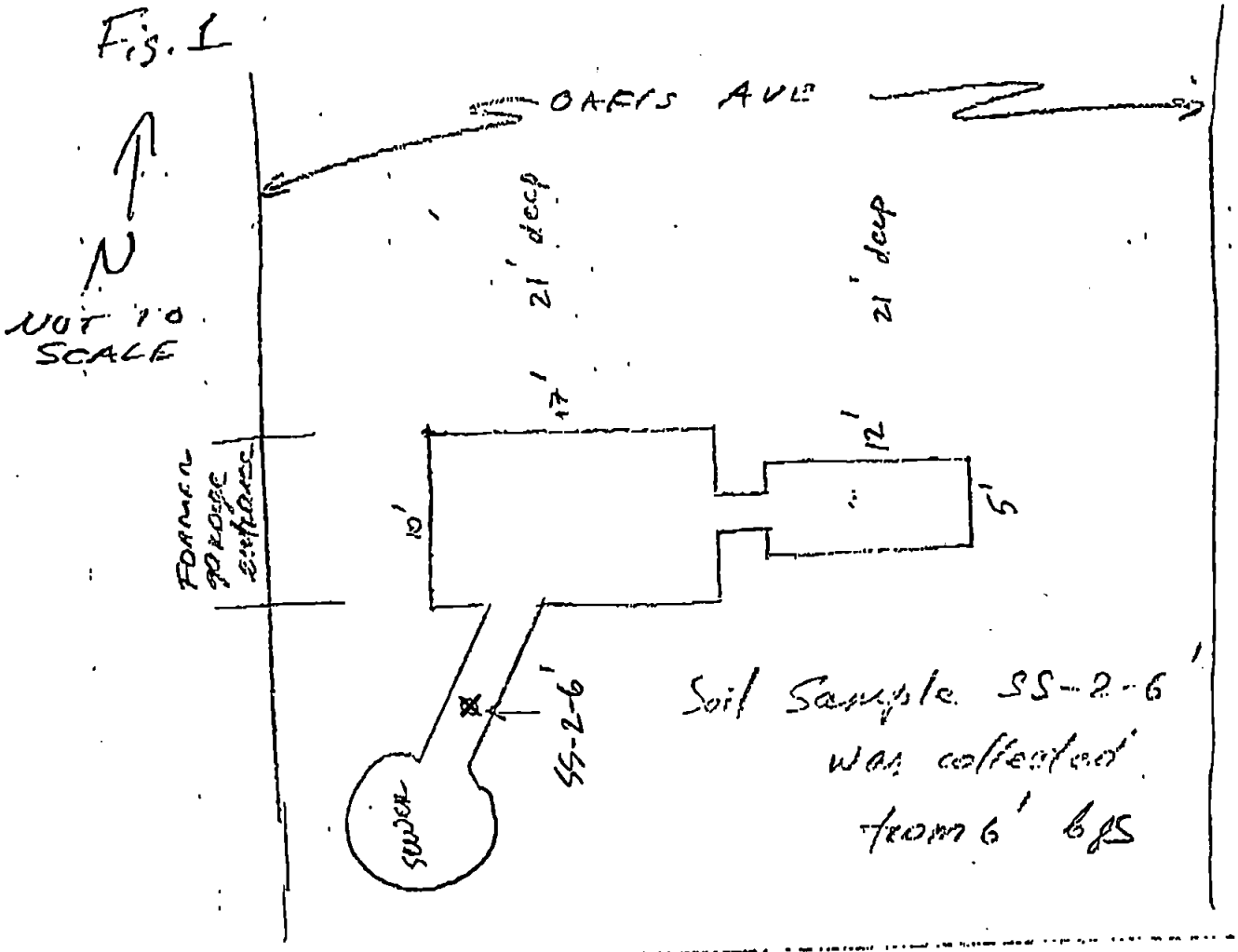
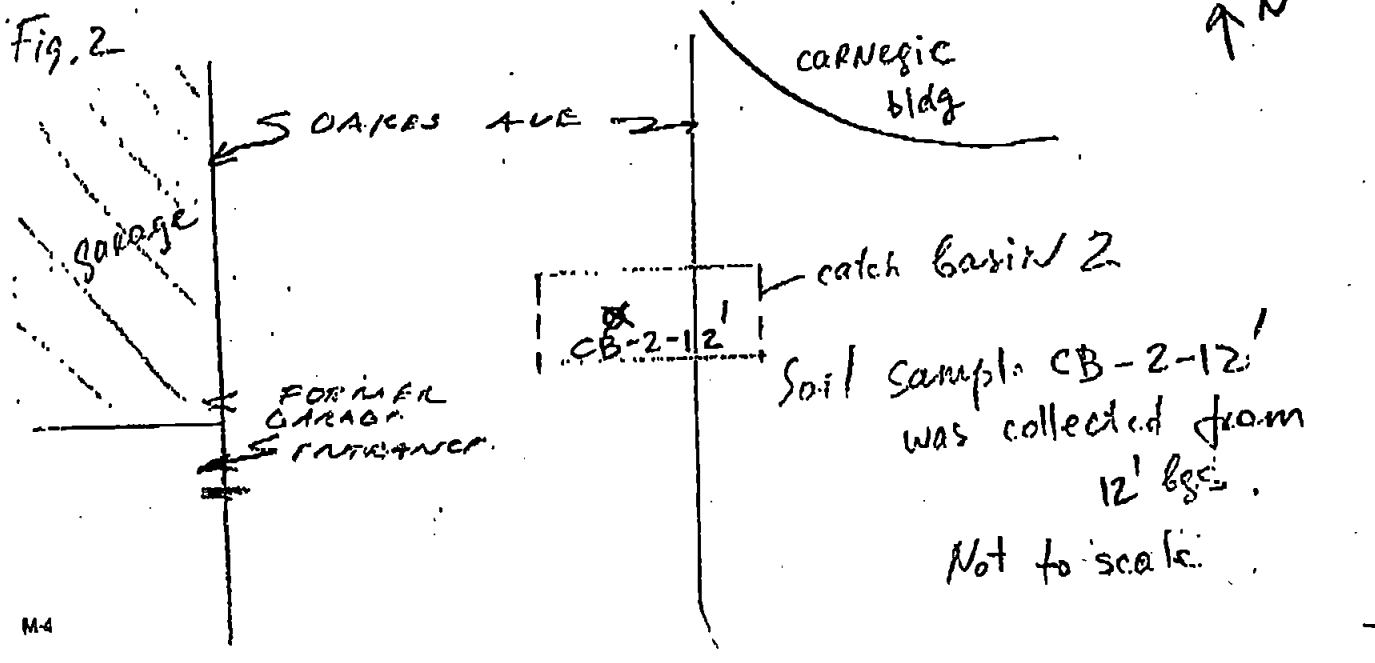


Fig. 2



CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: KLEINFELDER, INC.
2405 140TH AVE. NE, SUITE A-101
BELLEVUE, WA 98005

DATE: 1/21/03
CCIL JOB #: 301076
CCIL SAMPLE #: 1
DATE RECEIVED: 1/17/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JIM SCHMIDT/A. SPERANSKY

CLIENT PROJECT ID: 26450
CLIENT SAMPLE ID: SS-2-6' 1/17/03 1030

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	1/17/03	LAH
MTBE***	EPA-8021	ND(<0.1)	MG/KG	1/17/03	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	1/17/03	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	1/17/03	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	1/17/03	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	1/17/03	LAH

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:
GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

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

*** ANY POSITIVE MTBE RESULT SHOULD BE CONFIRMED BY GCMS ANALYSIS

APPROVED BY: CM

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES, INC.

CERTIFICATE OF ANALYSIS

CLIENT: KLEINFELDER, INC.
2405 140TH AVE. NE, SUITE A-101
BELLEVUE, WA 98005

DATE: 1/21/03
CCIL JOB #: 301076

DATE RECEIVED: 1/17/03
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JIM SCHMIDT/A. SPERANSKY

CLIENT PROJECT ID: 25450

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	ANALYTE	SUR ID	% RECV
301076-01	NWTPH-GX	TFT	100
301076-01	EPA-8021	TFT	68

BLANK AND DUPLICATE RESULTS

METHOD	BLK RESULT	ASSOC SMPLS	DUP RESULT	ORIG RESULT	%RPD	ASSOC SMPLS
NWTPH-GX (GAS)	ND(<3)	301076-01	ND(<3)	ND(<3)	----	SAME
EPA-8021(MTBE)	ND(<0.1)	301076-01	ND(<0.1)	ND(<0.1)	----	SAME
EPA-8021(BENZENE)	ND(<0.03)	301076-01	ND(<0.03)	ND(<0.03)	----	SAME
EPA-8021(TOLUENE)	ND(<0.05)	301076-01	ND(<0.05)	ND(<0.05)	----	SAME
EPA-8021(ETHYLBENZ)	ND(<0.05)	301076-01	ND(<0.05)	ND(<0.05)	----	SAME
EPA-8021(XYLENE)	ND(<0.2)	301076-01	ND(<0.2)	ND(<0.2)	----	SAME

SPIKE/ SPIKE DUPLICATE RESULTS

METHOD	SPIKE ID	ASSOCIATED SAMPLES	% SPIKE RECOVERY	% SPIKE DUP RECOVERY	REL % DIFF
EPA-8021	MTBE	301076-01	116	N/A	N/A
EPA-8021	BENZENE	301076-01	114	N/A	N/A
EPA-8021	TOLUENE	301076-01	110	N/A	N/A
EPA-8021	ETHYLBENZENE	301076-01	104	N/A	N/A
EPA-8021	XYLENE	301076-01	114	N/A	N/A

---- %RPD NOT REPORTED FOR VALUES <X5 THE REPORTING LIMIT

APPROVED BY:

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nalytical Laboratories, Inc.
6620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax

Chain of Custody, Laboratory Analysis Request

Date _____ Page _____ Of _____

PROJECT ID: 25450
REPORT TO COMPANY: Kleinfelder
PROJECT MANAGER: Jim Schmidt / A. Speransky
ADDRESS:
PHONE: (425) 562-4200 FAX: (425) 562-4201
INVOICE TO COMPANY: Kleinfelder
ATTENTION: Jim Schmidt
ADDRESS:
P.O. NUMBER CCI QUOTE:

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-GX	BTEX	NWTPH-DX	NWTPH-HCID	EPA 8021 ☐ 602 ☐	EPA 8010 ☐ 601 ☐	EPA 8260 ☐ 624 ☐	EPA 8270 ☐ 625 ☐	EPA 8081/8082 ☐ 608 ☐ PCB only ☐ Pest only ☐	Metals Priority Pollutant ☐ HCHA ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. SS-2-6'	1/17/03	1030	Soil		X	X												1	
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			

SPECIAL INSTRUCTIONS

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: _____ Kleinfelder 1/17/03 1500
Received By: _____ CCI 1-17-03 1705
2. Relinquished By: _____
Received By: _____

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis: 10 Standard | 5 | 3 | 2 | 1 | Same Day

Fuels & Hydrocarbon Analysis: 5 Standard | 3 | 1 | Same Day

OTHER: Specify: _____

* Turnaround request less than standard may incur Rush Charges

MAR-26-04 FRI 05:16 PM 21 FAX NO. 18885586636 P. 13

Appendix E

Appendix E

APPENDIX E

UNDERGROUND STORAGE TANK SITE CHECK/ SITE ASSESSMENT CHECKLIST

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK
Site Check/Site Assessment Checklist

FOR OFFICE USE ONLY
Site #: _____
Owner #: _____

INSTRUCTIONS

When a release has not been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person certified by IFCI or a Washington registered professional engineer who is competent, by means of examination, experience, or education, to perform site assessments. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This information must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
PO Box 47655
Olympia WA 98504-7655

SITE INFORMATION

Site ID Number (Available from Ecology if the tanks are registered): _____

Site/Business Name: Former Snohomish County Campus Parking Garage / New Administration Building

Site Address: 3012 Oakes Avenue (Street) Telephone: (425) 388-3118

Everett (City) WA (State) 98201 (Zip Code)

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
North UST	10,000 gal.	Gasoline
South UST	10,000 gal.	Gasoline

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

_____ Investigate suspected release due to on-site environmental contamination.
✓ Investigate suspected release due to off-site environmental contamination.
_____ Extend temporary closure of UST system for more than 12 months.
_____ UST system undergoing change-in-service.
_____ UST system permanently closed with tank removed.
_____ Abandoned tank containing product.
_____ Required by Ecology or delegated agency for UST system closed before 12/22/88.
_____ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.	YES	NO
1. The location of the UST site is shown on a vicinity map.	PVH	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	PVH	
3. A summary of UST system data is provided. (see Section 3.1.)	PVH	
4. The soils characteristics at the UST site are described. (see Section 5.2)	PVH	
5. Is there any apparent groundwater in the tank excavation?		PVH
6. A brief description of the surrounding land use is provided. (see Section 3.1)	PVH	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	PVH	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	PVH	
- groundwater samples distinguished from soil samples (if applicable) N/A		PVH
- samples collected from stockpiled excavated soil	PVH	
- tank and piping locations and limits of excavation pit	PVH	
- adjacent structures and streets	PVH	
- approximate locations of any on-site and nearby utilities	PVH	
9. If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4) N/A		PVH
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	PVH	
11. Any factors that may have compromised the quality of the data or validity of the results are described.	PVH	
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred. * No release from tanks; however, contamination in area of adjacent sidewalk R.O.W. may be associated with ancillary piping.		PVH*

SITE ASSESSOR INFORMATION

Paul L. Van Horne — Person registered with Ecology

Shannon & Wilson, Inc. — Firm Affiliated with

Business Address: 400 N. 34th St., Suite 100 — Street

Telephone: (206) 632-8020

Seattle — City

WA — State

98103 — Zip Code

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

5/3/2004 — Date

Paul L. Van Horne — Signature of Person Registered with Ecology

Appendix F

APPENDIX F

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL REPORT

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to and part of Report 21-1-12132-002

Date: September 7, 2004
To: Mr. Dales Moses
Snohomish County Facilities Management

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL/ENVIRONMENTAL REPORT

CONSULTING SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES AND FOR SPECIFIC CLIENTS.

Consultants prepare reports to meet the specific needs of specific individuals. A report prepared for a civil engineer may not be adequate for a construction contractor or even another civil engineer. Unless indicated otherwise, your consultant prepared your report expressly for you and expressly for the purposes you indicated. No one other than you should apply this report for its intended purpose without first conferring with the consultant. No party should apply this report for any purpose other than that originally contemplated without first conferring with the consultant.

THE CONSULTANT'S REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

A geotechnical/environmental report is based on a subsurface exploration plan designed to consider a unique set of project-specific factors. Depending on the project, these may include: the general nature of the structure and property involved; its size and configuration; its historical use and practice; the location of the structure on the site and its orientation; other improvements such as access roads, parking lots, and underground utilities; and the additional risk created by scope-of-service limitations imposed by the client. To help avoid costly problems, ask the consultant to evaluate how any factors that change subsequent to the date of the report may affect the recommendations. Unless your consultant indicates otherwise, your report should not be used: (1) when the nature of the proposed project is changed (for example, if an office building will be erected instead of a parking garage, or if a refrigerated warehouse will be built instead of an unrefrigerated one, or chemicals are discovered on or near the site); (2) when the size, elevation, or configuration of the proposed project is altered; (3) when the location or orientation of the proposed project is modified; (4) when there is a change of ownership; or (5) for application to an adjacent site. Consultants cannot accept responsibility for problems that may occur if they are not consulted after factors which were considered in the development of the report have changed.

SUBSURFACE CONDITIONS CAN CHANGE.

Subsurface conditions may be affected as a result of natural processes or human activity. Because a geotechnical/environmental report is based on conditions that existed at the time of subsurface exploration, construction decisions should not be based on a report whose adequacy may have been affected by time. Ask the consultant to advise if additional tests are desirable before construction starts; for example, groundwater conditions commonly vary seasonally.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or groundwater fluctuations may also affect subsurface conditions and, thus, the continuing adequacy of a geotechnical/environmental report. The consultant should be kept apprised of any such events, and should be consulted to determine if additional tests are necessary.

MOST RECOMMENDATIONS ARE PROFESSIONAL JUDGMENTS.

Site exploration and testing identifies actual surface and subsurface conditions only at those points where samples are taken. The data were extrapolated by your consultant, who then applied judgment to render an opinion about overall subsurface conditions. The actual interface between materials may be far more gradual or abrupt than your report indicates. Actual conditions in areas not sampled may differ from those predicted in your report. While nothing can be done to prevent such situations, you and your consultant can work together to help reduce their impacts. Retaining your consultant to observe subsurface construction operations can be particularly beneficial in this respect.

A REPORT'S CONCLUSIONS ARE PRELIMINARY.

The conclusions contained in your consultant's report are preliminary because they must be based on the assumption that conditions revealed through selective exploratory sampling are indicative of actual conditions throughout a site. Actual subsurface conditions can be discerned only during earthwork; therefore, you should retain your consultant to observe actual conditions and to provide conclusions. Only the consultant who prepared the report is fully familiar with the background information needed to determine whether or not the report's recommendations based on those conclusions are valid and whether or not the contractor is abiding by applicable recommendations. The consultant who developed your report cannot assume responsibility or liability for the adequacy of the report's recommendations if another party is retained to observe construction.

THE CONSULTANT'S REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when other design professionals develop their plans based on misinterpretation of a geotechnical/environmental report. To help avoid these problems, the consultant should be retained to work with other project design professionals to explain relevant geotechnical, geological, hydrogeological, and environmental findings, and to review the adequacy of their plans and specifications relative to these issues.

BORING LOGS AND/OR MONITORING WELL DATA SHOULD NOT BE SEPARATED FROM THE REPORT.

Final boring logs developed by the consultant are based upon interpretation of field logs (assembled by site personnel), field test results, and laboratory and/or office evaluation of field samples and data. Only final boring logs and data are customarily included in geotechnical/environmental reports. These final logs should not, under any circumstances, be redrawn for inclusion in architectural or other design drawings, because drafters may commit errors or omissions in the transfer process.

To reduce the likelihood of boring log or monitoring well misinterpretation, contractors should be given ready access to the complete geotechnical engineering/environmental report prepared or authorized for their use. If access is provided only to the report prepared for you, you should advise contractors of the report's limitations, assuming that a contractor was not one of the specific persons for whom the report was prepared, and that developing construction cost estimates was not one of the specific purposes for which it was prepared. While a contractor may gain important knowledge from a report prepared for another party, the contractor should discuss the report with your consultant and perform the additional or alternative work believed necessary to obtain the data specifically appropriate for construction cost estimating purposes. Some clients hold the mistaken impression that simply disclaiming responsibility for the accuracy of subsurface information always insulates them from attendant liability. Providing the best available information to contractors helps prevent costly construction problems and the adversarial attitudes that aggravate them to a disproportionate scale.

READ RESPONSIBILITY CLAUSES CLOSELY.

Because geotechnical/environmental engineering is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in their contracts, reports and other documents. These responsibility clauses are not exculpatory clauses designed to transfer the consultant's liabilities to other parties; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

The preceding paragraphs are based on information provided by the
ASFE/Association of Engineering Firms Practicing in the Geosciences, Silver Spring, Maryland