

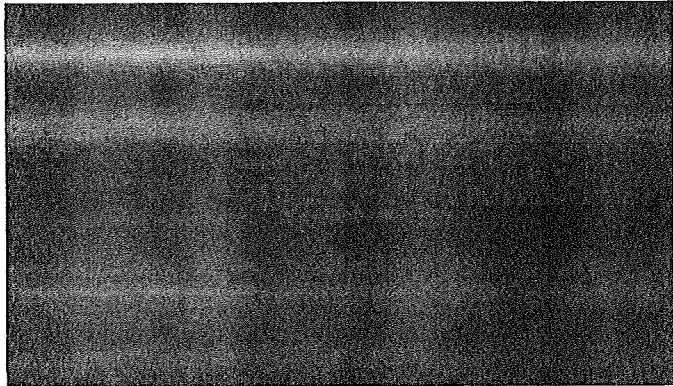
LUST INC. # 4084
Northern State Multi-Service Center
Skagit / Sedro Woolley

P.O. Box 88206
Kenmore, WA 98028

Telephone (206) 486-6665
FAX (206) 486-7896



James P. Hurley Co.
Environmental Risk Management Consultants



**UNDERGROUND STORAGE TANK
REMOVAL SUMMARY REPORT**

**MULTI SERVICE CENTER
SEDROW WOOLLEY, WASHINGTON**

JPHC CO# 921106

52
12/19/94
DN

DEPARTMENT OF ECOLOGY
NWRO/TCP TANKS UNIT

INTERIM CLEANUP REPORT

SITE CHARACTERIZATION

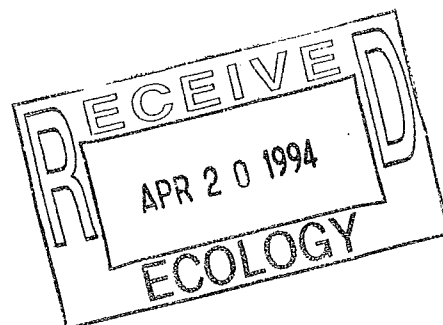
FINAL CLEANUP REPORT

OTHER _____

AFFECTED MEDIA: SOIL

OTHER _____ GW

INSPECTOR (INIT.) DL DATE 11-16-94



REPORT PREPARED BY:

JAMES P. HURLEY COMPANY
P.O. BOX 82206
KENMORE, WASHINGTON 98028
(206) 486-9379

RECEIVED
JUL 27 1994
DEPT. OF ECOLOGY

SUMMARY OF INSERTS

DENNY BUILDING:	Table 1 Attachment 1 Exhibit 1 Exhibit 1-A	Lab summary Lab reports Sampling plan Site plan
MAINTENANCE BUILDING:	Table 2 Table 3 Attachment 2 Exhibit 2 Exhibit 2-A	Lab summary Lab summary Lab reports Sampling plan Site plan
DOUGLAS BUILDING:	Table 4 Attachment 3 Exhibit 3 Exhibit 3-A Exhibit 4	Lab summary Lab reports Sampling plan Site plan Vicinity Map

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P.O. Box 82206
Kenmore, WA 98028

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February 15, 1993

Environmental Excavation, Inc.
P.O. Box 1245
Lake Stevens, WA 98258

Attn.: Mr. Scott Waldal, Project Manager

UNDERGROUND STORAGE TANK REMOVAL SUMMARY REPORT
MULTI SERVICE CENTER
Sedrow Woolley, WA
CO# 921106

Dear Scott:

Site investigations of the subject property were conducted on December 1, 1992 and January 30, and March 5, 1993, by James P. Hurley Co. (JPHC), an environmental consulting firm, to assess the condition of the underground surfaces in the vicinity of four former and one remaining underground storage tanks (USTs) on the subject property (see Exhibit 4, Vicinity Map).

PURPOSE

The purpose of these investigations was to confirm the presence or absence of significant petroleum contamination in the underground surfaces surrounding the USTs. This report is prepared in accordance with the requirements of WAC 172-360-630 and as outlined in the Washington State Department of Ecology (WSDOE) publication entitled Guidance for Site Checks and Site Assessments for Underground Storage Tanks, dated February, 1991, revised October 1992.

SCOPE OF INSPECTION

The scope of services included observation of the tank removal activities; a visual inspection of the USTs and surrounding soil; collection of soil samples for analysis of petroleum hydrocarbons by an approved laboratory using EPA methods 8020, WTPH-G, WTPH-D, WTPH-418.1; and preparation of this report.

REPORT LAYOUT

For clarity, an "Executive Summary" section will be provided for each site location from which UST(s) were decommissioned followed by a "Background", "Site Observations", "Sampling Protocol", and a "Findings" section.

DENNY BUILDING-EXECUTIVE SUMMARY

One 250 gallon heating oil UST was decommissioned and removed from the site on December 1, 1992 by Environmental Excavation, Inc. (EEI). All three analytical test results of soil samples collected from the excavation following the UST removal were confirmed to be nondetectable for total petroleum hydrocarbons. This data supported our field investigation information which indicated that no significant contaminants emanating from the former UST had entered the surrounding soils. These results are in compliance with the Model Toxic Control Act (MTCA) Method A cleanup standards for diesel and heavy oils of 200 parts per million (ppm). Results of the laboratory analysis are summarized in Table 1 and the laboratory reports are attached as Attachment 1. Ground water was not encountered within the depths of the excavation.

MAINTENANCE BUILDING-EXECUTIVE SUMMARY

One 2,000 and one 1,000 gallon gasoline UST were decommissioned and removed from the site on December 1, 1992 by EEI. Analytical test results of soil samples collected at the bottom of the excavation confirmed the presence of gasoline on the order of 7,000 ppm and 890 ppm, respectively. These results exceed the MTCA Method A cleanup standards for gasoline in soil of 100 ppm. Results of the laboratory analysis are summarized in Table 2 and Table 3. The laboratory reports are attached as Attachment 2. Ground water was encountered within the limits of the UST excavation and was confirmed to be in contact with gasoline contaminated soil at a depth of six feet bgs. A more comprehensive investigation is necessary to determine the vertical and horizontal extent of contaminated soils.

According to the project specifications a third UST was slated for decommissioning and removal. EEI excavated in the vicinity of the fill pipe, identified by Multi Service Center (MSC) representatives as the fill pipe for the third UST, to a depth of five feet beneath ground surface (bgs). Upon exposing the fill pipe it was discovered that the pipe was cut off approximately twelve inches bgs and the UST was not found.

DOUGLAS BUILDING-EXECUTIVE SUMMARY

One 500 gallon No. 2 diesel fuel UST was slated for decommissioning and in-place closure. Richmond Engineering, the contracted engineering firm for this project, reconsidered the removal of this UST due to the depth and close proximity to the buildings foundation. EEI excavated to the top of the UST and found the depth to be nine feet bgs. The UST was cut open and cleaned to "gas-free"¹ conditions. Soil samples were taken by physically entering the UST and cutting holes in the side of the tank, just above the water table, at a depth of thirteen feet bgs. One soil sample was recovered from each end and one from the middle section of the UST. The samples were analyzed for diesel using EPA method WTPH-D. Analytical test results confirmed the presents of

¹"gas-free" is a state of condition for confined spaces (USTs), establish by the National Fire Protection Agency (NFPA), that would assure toxic and explosive gases to be at safe working concentrations, safe for workers and hot work. The referenced UST was certified gas-free by a Marine Chemist prior to decommissioning.

diesel range hydrocarbons on the order of 460 ppm to 860 ppm. These results exceed the MTCA Method A cleanup standards for diesel of 200 ppm. Further investigation is necessary to determine the vertical and horizontal extent of contaminated soil and the conditions of localized ground water in the vicinity of the UST. Results of the laboratory analysis are summarized in Table 3 and the laboratory reports are attached as Attachment 3.

DENNY BUILDING

BACKGROUND

Historical and current use of the Denny building has been limited to mental health services provided by the Multi Service Center. The underground storage tank was used for diesel fuel storage that supplied a conventional furnace to heat the building. It is believed that the UST was installed in the early 1960s (see Exhibit A-1, Site Plan).

SITE OBSERVATIONS

On December 1, 1992, Todd Salamonsen, a registered site assessor for JPHC, visited the site and observed the removal of one 250 gallon heating oil UST. Visual observations and field screening tests performed on samples collected from the bottom and side walls of the UST excavation showed no signs of petroleum contamination. The UST appeared to be sound and had no signs of past or present leakage.

SAMPLING PROTOCOL

Three representative soil samples were collected and analyzed from the UST excavation at the locations shown on Exhibit 1, Sampling Plan. Samples #01 and #02 were composite channel samples collected from south-east and north-west side walls of the excavation, respectively. Sample #03 was a discrete sample collected from the bottom of the excavation.

FINDINGS

Chemical analysis of Soil Sample #01, #02, and #03 confirmed that all three samples were nondetectable for total petroleum hydrocarbons. All soil sample results were within the MTCA Method A standards for diesel of less than 200 ppm (results of the laboratory analysis are summarized in Table 1).

MAINTENANCE BUILDING

BACKGROUND

Historical use of the maintenance building has been to supply the MSC compound vehicles with routine maintenance and fuel via two gasoline pumps located on one concrete pump island. One former 1,000 gallon gasoline UST was located on the south-west side (excavation area W) and one former 2,000 gallon gasoline UST was located approximately thirty feet to the west of the

maintenance building in excavation area S (see Exhibit 2-A, Site Plan). The 2,000 gallon UST was installed in 1987 as a replacement for a former gasoline storage tank that was reported to have failed a static pressure test and had shown signs of past leakage.

SITE OBSERVATIONS

On December 1, 1992, Todd Salamonsen visited the site and observed the removal of one 2,000 gallon and one 1,000 gallon gasoline UST from excavation areas W and S (see Exhibit 2-A, Site Plan). Visual observations and field screening tests performed on samples collected from the bottom and side walls of the UST excavations showed signs of petroleum contamination. There was also a heavy odor of gasoline emanating from both excavations. Inspection of the USTs confirmed that both USTs were free of visual corrosive degradation or integral damage. However, it was evident that gasoline had been leaking from the USTs service supply lines.

SAMPLING PROTOCOL

Three representative soil samples were collected and analyzed from each of the UST excavation areas, see locations shown on Exhibit 2, Sampling plan. Samples #01 and #02 were composite channel samples collected from north-west and south-east side walls of excavation areas W and S, respectively. Sample #03 was a discrete sample collected from the bottom of the excavation areas.

FINDINGS

Chemical analysis of soil samples #01 and #03, from excavation area W, confirmed the presence of gasoline contamination on the order of 100 ppm and 890 ppm, respectively. These results exceed the Model Toxic Control Act Method A cleanup standard for gasoline in soil, of 100 ppm for gasoline. Results of the laboratory analysis are summarized in Table 2 and the laboratory reports are attached as Attachment 2. Sample #02, from excavation area W, was confirmed to be non-detectable for total petroleum hydrocarbons.

Chemical analysis of soil samples #01, #02, and #03, from excavation area S, confirmed the presence of gasoline contamination on the order of 1,300 ppm, 7,000 ppm, and 5,800 ppm, respectively. These results exceed the Model Toxic Control Act Method A cleanup standard of 100 ppm for gasoline in soil. Results of the laboratory analysis are summarized in Table 3, and the laboratory reports are attached as Attachment 2.

DOUGLAS BUILDING

BACKGROUND

Historical and present day use of the Denny building has been limited to the mental health services provided by the MSC. The 300 gallon underground storage tank was used to store diesel fuel for an emergency generator (see

Exhibit 3-A, Site Plan). According to the MSC maintenance personnel the UST was installed in the 1930s.

SITE OBSERVATIONS AND SAMPLING PROTOCOL

On December 1, 1992, Todd Salamonsen visited the site to observe the removal of a 300 gallon UST and collect soil samples from the excavation area. During the excavation activities, EEI discovered that the UST was deeper than the contract specification indicated. This caused removal of the UST to be delayed until a decision from Richman Engineering could be made concerning a contractual change order. EEI was later advised that the UST was to be closed in-place using a solid inert material. Prior to filling the tank, EEI was directed to obtain three soil samples from beneath the tank.

On January 30, 1993, Todd Salamonsen and Jim Hurley, both registered site assessors for JPHC, visited the site to drill sampling holes through the UST and collect soil samples for laboratory analysis. Due to unstable soil conditions it was concluded that the UST was not safe to enter. A recent snow fall and rain had saturated the excavation area with water and mud. However, during the excavation to the top of the UST, soils on the west side of the UST were observed to be coated with heavy oil. One soil sample was collected and analyzed using EPA Method WTPH-418.1.

On March 5, 1993, Jim Hurley returned to the site to drill sampling holes and collect three soil samples from the bottom² of the UST. Samples #01, #02, and #03 were discrete samples collected at each end and the middle areas of the west side of the UST (see Exhibit 3, Sampling Plan). Soil samples were collected from the side due to the presence of ground water directly beneath the UST, at an approximate of fourteen feet bgs.

FINDINGS

Chemical analysis of the sample collected on January 30, 1993 was confirmed to contain total petroleum hydrocarbons on the order of 260 ppm. Chemical analysis of soil samples #01, #02, and #03 confirmed the presence of diesel contamination on the order of 860, 460, and 740 ppm, respectively. These results exceed the MTCA Method A cleanup standards for diesel of 200 ppm. Results of the laboratory analysis are summarized in Table 3 and the laboratory reports are attached as Attachment 3.

LIMITATIONS

This report summarizes the findings of the services authorized under our contract. It has been prepared using generally accepted professional practices, related to the nature of the work accomplished, in the same or similar localities, at the time the services were performed. This report was prepared for the exclusive use of the State of Washington Department of Administration

² Since the Bottom of the UST was below the water table, the samples were collected from the side of the tank, approximately 12 inches above the bottom of the tank and approximately 14 feet bgs.

6
JPHC CO# 921106
02/15/93

and Environmental Excavation, Inc. for the specific application to the project purpose. This report should not be construed to represent a legal opinion. No other conditions, expressed or implied, should be understood.

This report concludes the services authorized under the terms of our contract. Please call me with any questions on this matter.

Sincerely,
JAMES P. HURLEY CO.



Todd Salamonsen
Registered Washington State UST Site Assessor

TABLE 1
Summary of WTPH-D Laboratory Analysis
DENNY BUILDING

<u>Sample #</u>	<u>Location</u>	Diesel Range
		<u>ppm</u>
01	south-east side walls	<25
02	north-west side walls	<25
03	bottom	<25

TABLE 2
Summary of WTPH-G Laboratory Analysis
MAINTENANCE BUILDING
Excavation Area W

<u>Sample #</u>	<u>Location</u>	Gasoline Range
		<u>ppm</u>
01	north-west side walls	100
02	south-east side walls	<5
03	bottom	890

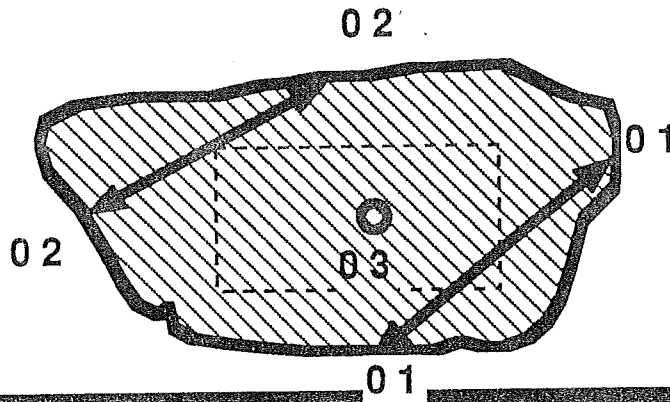
TABLE 3
Summary of WTPH-G Laboratory Analysis
MAINTENANCE BUILDING
Excavation Area S

<u>Sample #</u>	<u>Location</u>	<u>Gasoline Range</u> <u>ppm</u>
01	north-west side walls	1,300
02	south-east side walls	7,000
03	bottom	5,800

TABLE 4
Summary of WTPH-D Laboratory Analysis
DOUGLAS BUILDING

<u>Sample #</u>	<u>Location</u>	<u>Diesel Range</u> <u>ppm</u>
01	south-end west side wall	860
02	middle west side wall	460
03	north-end west side wall	740

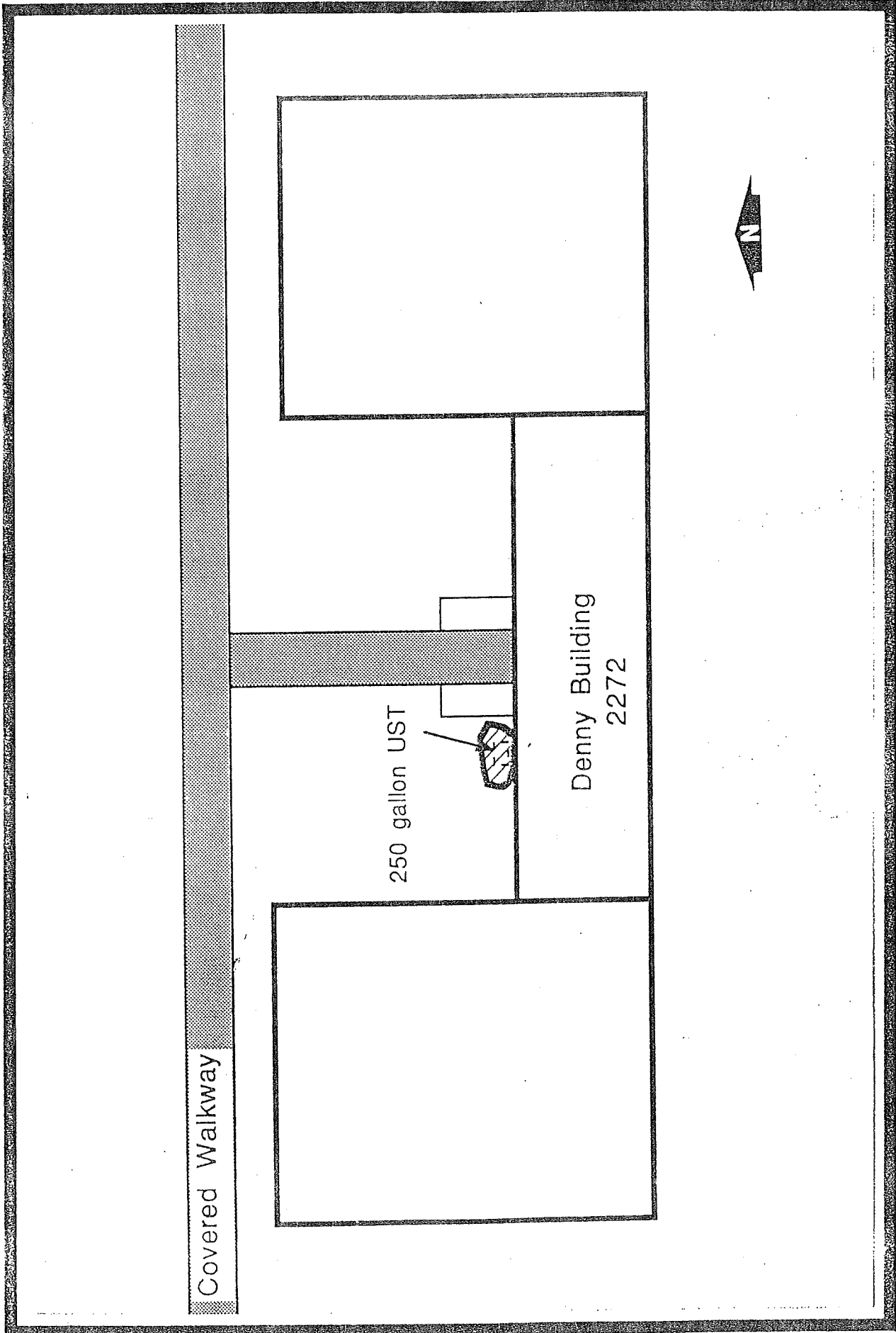
EXHIBIT 1



Denny Building Exterior Wall

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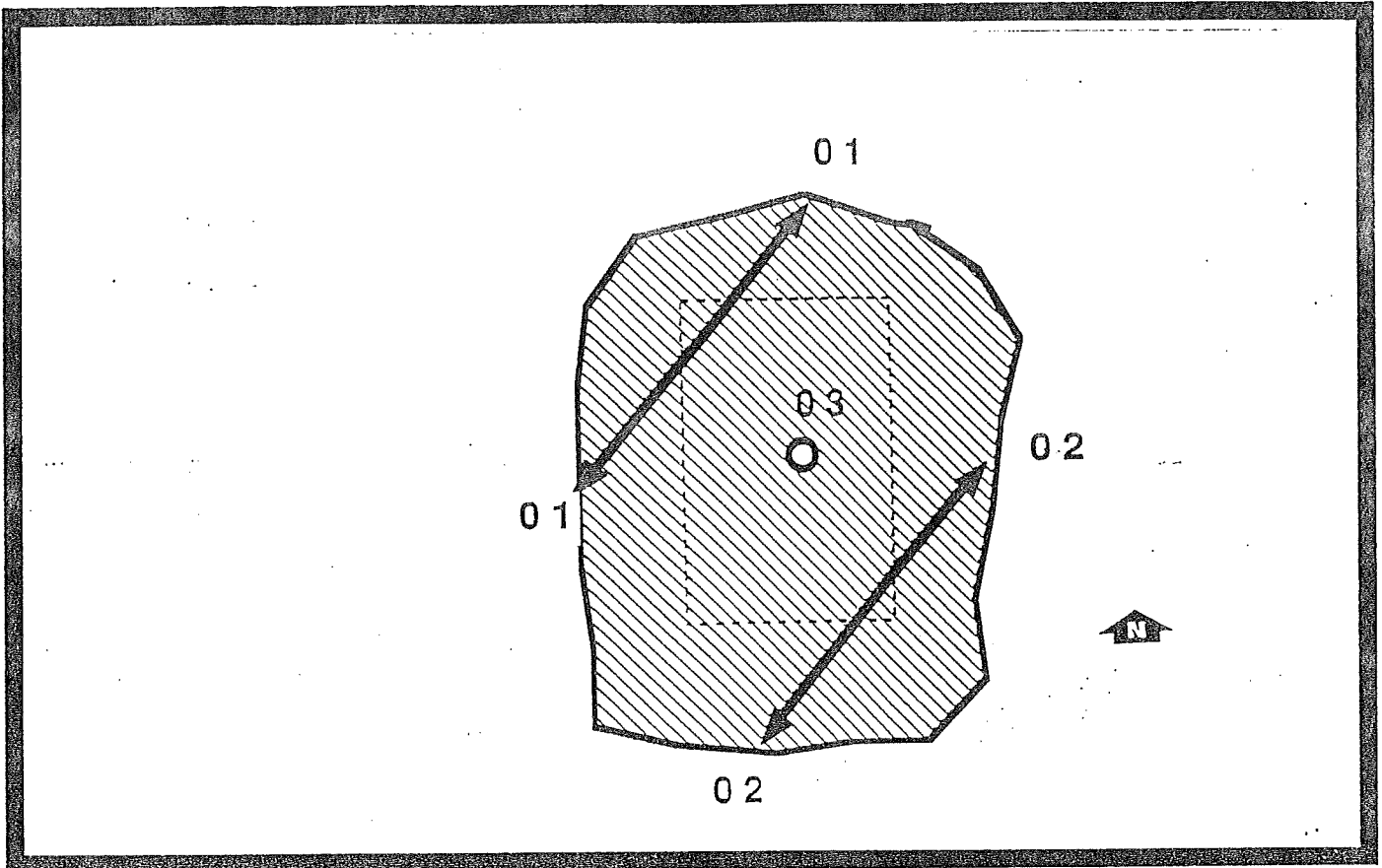




SITE PLAN
DENNY BUILDING

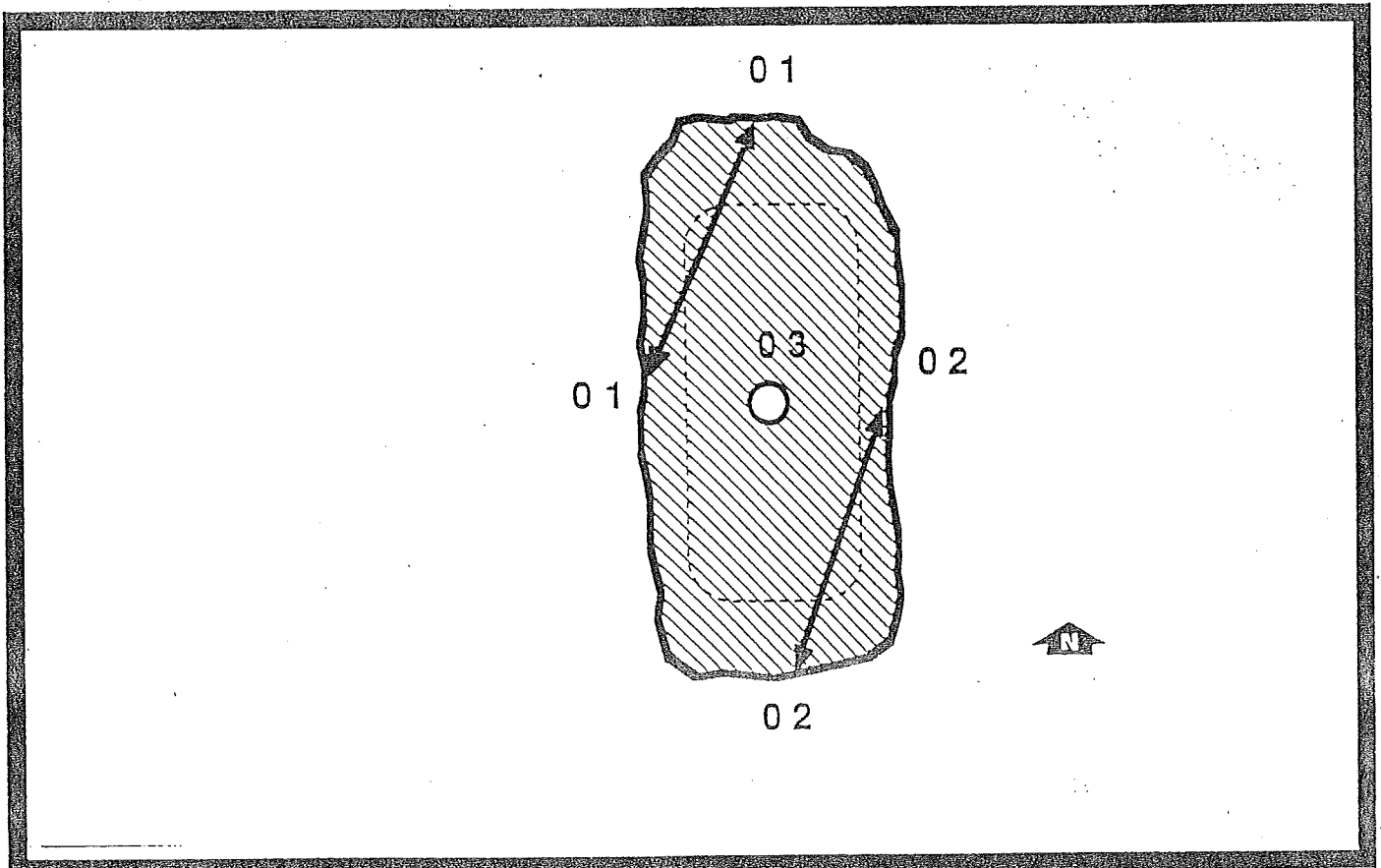
James P. Hurley Co.
Environmental Risk Management Consultants

EXHIBIT 2



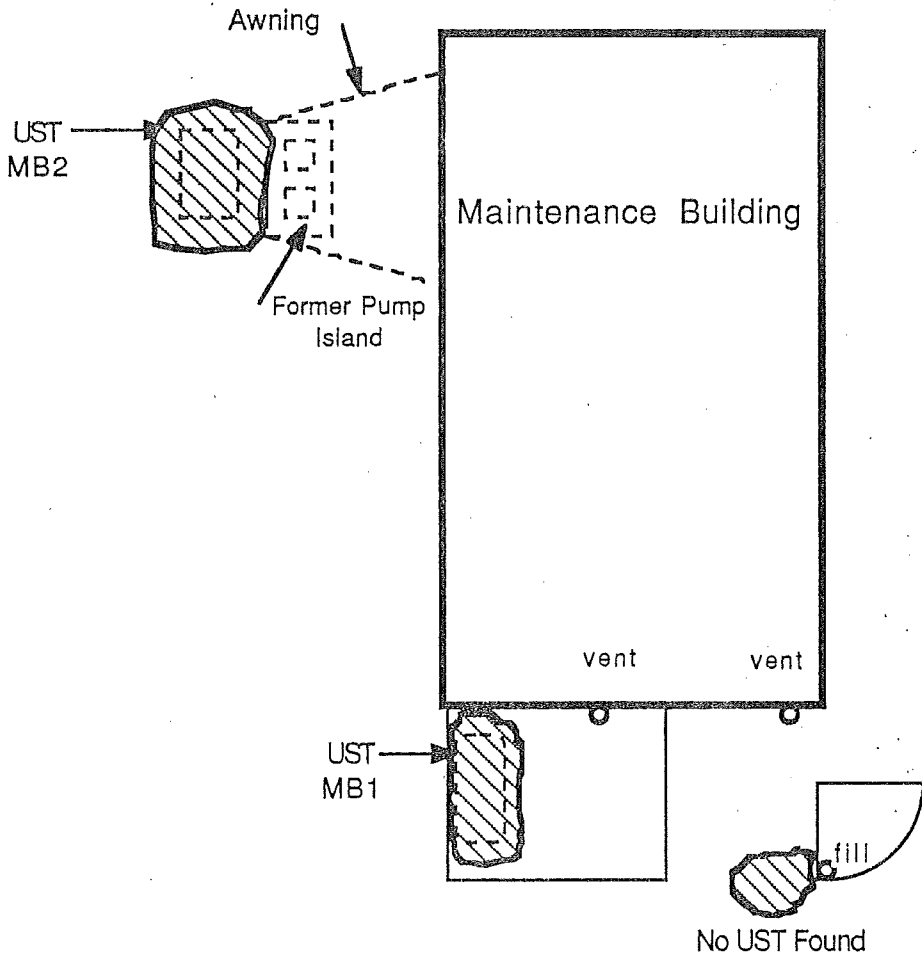
 James P. Hurley Co.
Environmental Risk Management Consultants

SAMPLING PLAN
MAINTENANCE BUILDING EXCAVATION W



 James P. Hurley Co.
Environmental Risk Management Consultants

SAMPLING PLAN
MAINTENANCE BUILDING EXCAVATION S



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**EXHIBIT 2-A
SITE PLAN**

MAINTENANCE BUILDING



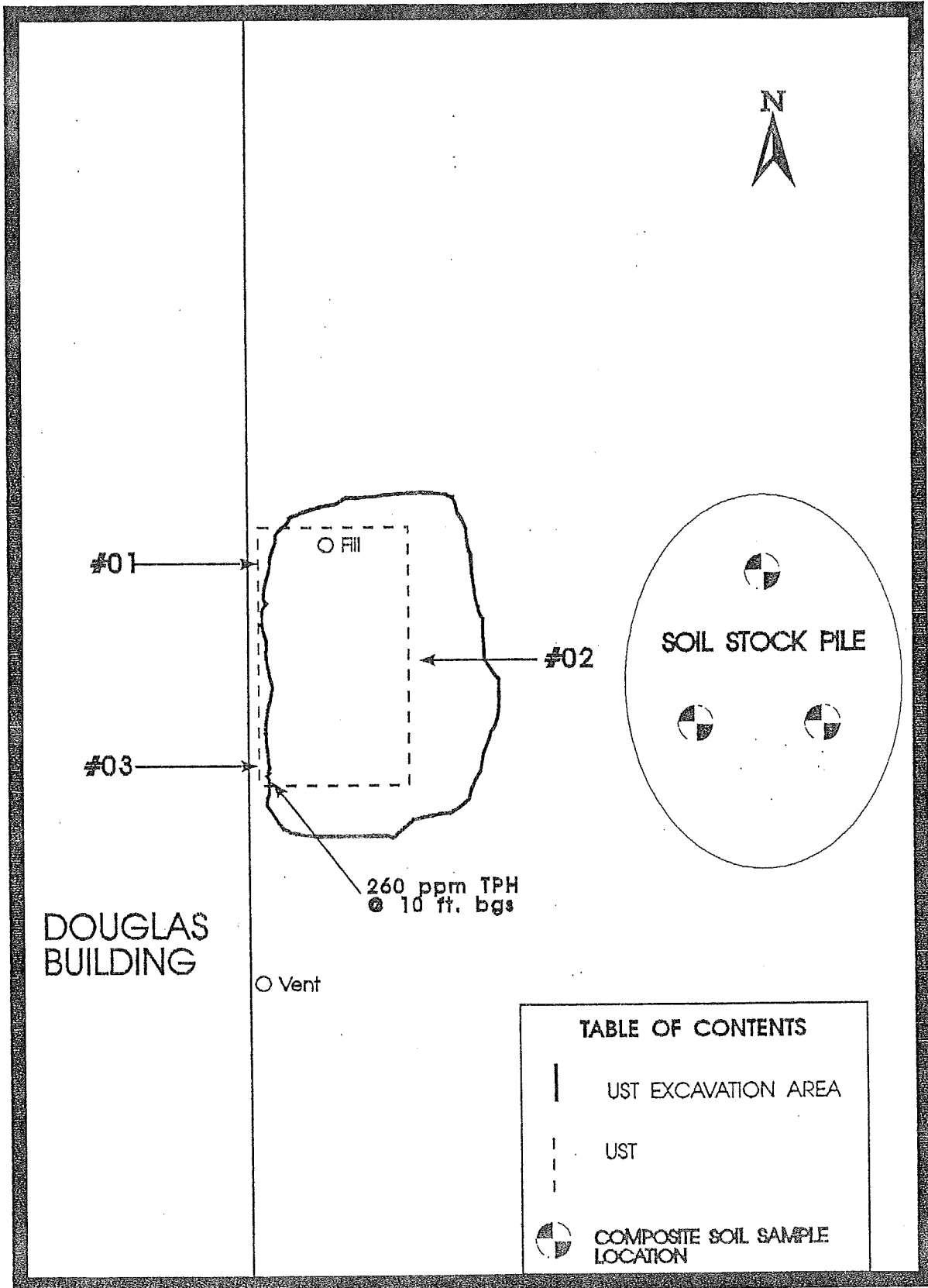
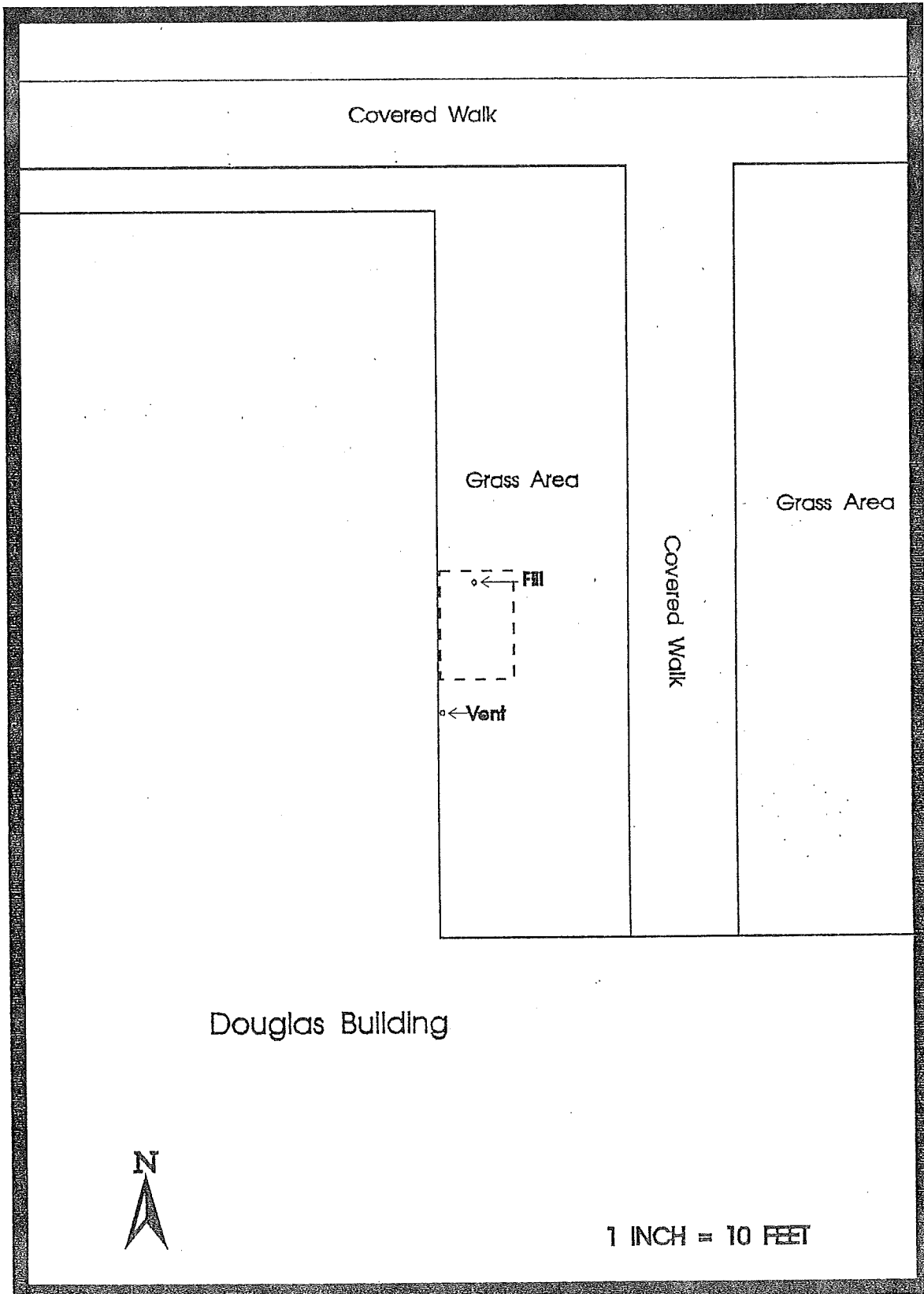


EXHIBIT 3
SAMPLING PLAN

DOUGLAS BUILDING



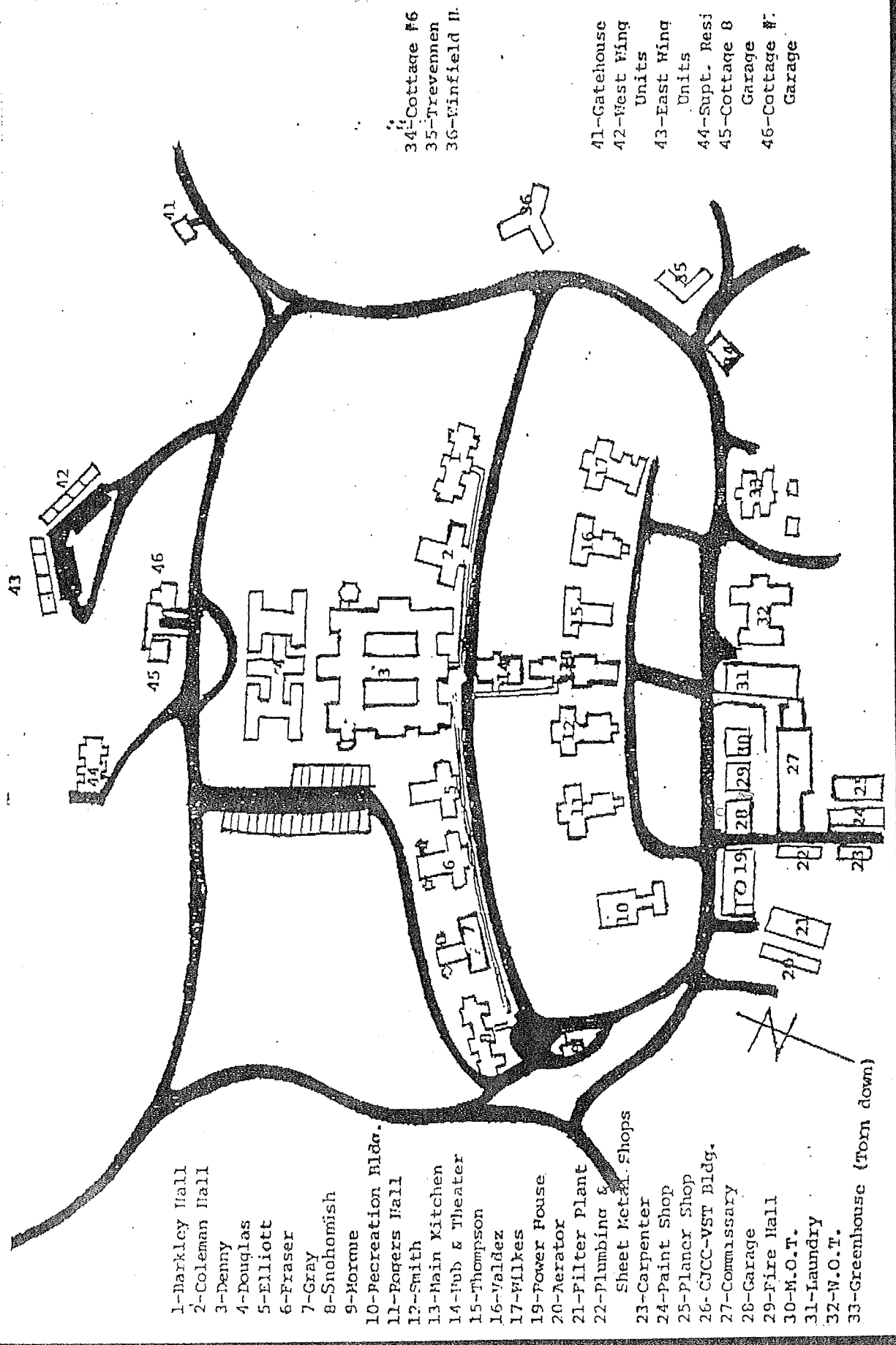
Douglas Building



1 INCH = 10 FEET

EXHIBIT 3-A
SITE PLAN

DOUGLAS BUILDING



- 1-Barkley Hall
- 2-Coleman Hall
- 3-Denny
- 4-Douglas
- 5-Elliott
- 6-Fraser
- 7-Gray
- 8-Snohomish
- 9-Morime
- 10-Recreation Bldg.
- 11-Powers Hall
- 12-Smith
- 13-Main Kitchen
- 14-Club & Theater
- 15-Thompson
- 16-Valdez
- 17-Milkes
- 19-Power House
- 20-Aerator
- 21-Filter Plant
- 22-Plumbing & Sheet Metal Shops
- 23-Carpenter
- 24-Paint Shop
- 25-Planer Shop
- 26-CJCC-VST Bldg.
- 27-Commissary
- 28-Garage
- 29-Fire Hall
- 30-M.O.T.
- 31-Laundry
- 32-W.O.T.
- 33-Greenhouse (Tom down)

- 34-Cottage #6
- 35-Trevemmen
- 36-Winfield II.

- 41-Gatehouse
- 42-West Wing Units
- 43-East Wing Units
- 44-Supt. Resi
- 45-Cottage B Garage
- 46-Cottage #7 Garage

EXHIBIT 4
VICINITY MAP



December 3, 1992

Scott Waldal
Environmental Excavation, Inc.
P.O. Box 1245
Lake Stevens, WA 98258

Dear Scott:

Enclosed are the results of the analyses of samples submitted on December 1, 1992 from Project Multi Service Center.

We appreciate this opportunity to be of service to you on this project. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Tammy C. Howard

Tammy C. Howard
Senior Chemist

Enclosures

cc Jim Hurley

Date of Report: December 3, 1992
 Samples Submitted: December 1, 1992
 Lab Traveler: 12-001
 Project: Multi Service Center

Matrix: Soil
 Units: mg/Kg (ppm)
 Date Extracted: December 1, 1992
 Date Analyzed: December 1, 1992

WTPH-D

Sample #	Dilution Factor	TPH	o-terphenyl Surrogate Recovery
DEN 1	1	<25	100%
DEN 2	1	<25	94%
DEN 3	1	<25	94%

QUALITY ASSURANCE

Sample #: 12-005-4

Method Blank	1	<25	98%
Sample Conc.	1	<25	76%
Duplicate Conc.	1	<25	84%
RPD		0%	
Spike Blank @ 102 ppm Concentration % Recovery	1	84 83%	120%
Spike Blank Duplicate Concentration % Recovery	1	81 79%	110%
RPD		3.6%	

Date of Report: December 3, 1992
Samples Submitted: December 1, 1992
Lab Traveler: 12-001
Project: Multi Service Center

Date Analyzed: December 1, 1992

RESULTS OF DRY WEIGHT

Sample #	Moisture
DEN 1	7.7%
DEN 2	23%
DEN 3	19%



December 7, 1992

Scott Waldal
Environmental Excavation Inc.
P.O. Box 1245
Lake Stevens, WA 98258

Dear Scott:

Enclosed are the results of the analyses of samples submitted on December 2, 1992 from Project 921106.

We appreciate this opportunity to be of service to you on this project. If you have any questions regarding this report, please feel free to call me.

Sincerely,

Tammy C. Howard

Tammy C. Howard
Senior Chemist

Enclosures

cc Todd Salamonsen

Date of Report: December 7, 1992
 Samples Submitted: December 2, 1992
 Lab Traveler: 12-006
 Project: 921106

Matrix: Soil
 Units: ug/Kg (ppb)
 Date Extracted: December 2, 1992
 Date Analyzed: December 2 and 3, 1992

EPA 8020 & WTPH-G
 (PURGE & TRAP)

Sample #:	MB1A	MB1B	MB1C
Dilution Factor	50	50	1000
Analyte:			
Benzene	<50	<50	<50 ^N
Toluene	100	<50	2,100 ^N
Ethylbenzene	680	<50	8,000
m,p-Xylene	1,200 ^B	<50	30,000 ^B
o-Xylene	920	<50	10,000
TPH-Gas Units: mg/Kg (ppm)	100	<5	890 ^N
4-Bromofluorobenzene Surrogate Recovery	81%	76%	97%

B-The analyte indicated was also found in the blank sample.

N-Data from 1:50 dilution.

Date of Report: December 7, 1992
 Samples Submitted: December 2, 1992
 Lab Traveler: 12-006
 Project: 921106

Matrix: Soil
 Units: ug/Kg (ppb)
 Date Extracted: December 2, 1992
 Date Analyzed: December 2 and 3, 1992

EPA 8020 & WTPH-G
 (PURGE & TRAP)

Sample #:	MB2A	MB2B	MB2C
Dilution Factor	1000	1000	1000
Analyte:			
Benzene	<50 ^N	<250 ^{N, Z}	<250 ^{N, Z}
Toluene	3,900 ^N	26,000	29,000
Ethylbenzene	9,000	51,000	43,000
m,p-Xylene	50,000 ^B	>100,000 ^B	>100,000 ^B
o-Xylene	22,000	>100,000	100,000
TPH-Gas Units: mg/Kg (ppm)	1,300 ^N	7,000	5,800 ^N
4-Bromofluorobenzene Surrogate Recovery	96%	110%	100%

B-The analyte indicated was also found in the blank sample.

N-Data from 1:50 dilution.

Z-Interferences were present which prevented the quantitation of the analyte indicated below the given detection limit.

Date of Report: December 7, 1992
Samples Submitted: December 2, 1992
Lab Traveler: 12-006
Project: 921106

Matrix: Soil
Units: ug/Kg (ppb)
Date Extracted: December 2, 1992
Date Analyzed: December 2, 1992

EPA 8020 & WTPH-G
(PURGE & TRAP)

QUALITY CONTROL

Sample #:	Method Blank	Original	Duplicate	RPD
MB1B				
Dilution Factor	50	50	50	
<u>Analyte:</u>				
Benzene	<50	<50	<50	0%
Toluene	<50	<50	<50	0%
Ethylbenzene	<50	<50	<50	0%
m,p-Xylene	50	<50	80 ^{B, J}	NA
o-Xylene	<50	<50	<50	0%
TPH-Gas Units: mg/Kg (ppm)	<5	<5	<5	0%
4-Bromofluorobenzene Surrogate Recovery	86%	76%	81%	

B-The analyte indicated was also found in the blank sample.

J-The value indicated was below the practical quantitation limit. The value is an estimate.

NA-Not Applicable.

Date of Report: December 7, 1992
Samples Submitted: December 2, 1992
Lab Traveler: 12-006
Project: 921106

Matrix: Soil
Units: ug/Kg (ppb)
Date Extracted: December 2, 1992
Date Analyzed: December 2, 1992

EPA 8020 & WTPH-G
(PURGE & TRAP)

MATRIX SPIKE QUALITY CONTROL

Sample #: MB1B
Spiked @ 1000 ppb

	M.S. Conc.	Percent Recovery	M.S. Dup. Conc.	Percent Recovery	RPD
Dilution Factor	50		50		
<u>Analyte:</u>					
Benzene	851	85%	829	83%	2.6%
Toluene	838	84%	818	82%	2.4%
Ethylbenzene	899	90%	875	88%	2.7%
m,p-Xylene	1770 ^B	88%	1730 ^B	86%	2.2%
o-Xylene	907	91%	888	89%	2.1%
4-Bromofluorobenzene Surrogate Recovery	81%		77%		

B-The analyte indicated was also found in the blank sample.

Date of Report: December 7, 1992
Samples Submitted: December 2, 1992
Lab Traveler: 12-006
Project: 921106

Date Analyzed: December 2, 1992

RESULTS OF DRY WEIGHT

Sample #	Moisture
MB1A	23%
MB1B	20%
MB1C	21%
MB2A	27%
MB2B	28%
MB2C	28%



AMERICAN ANALYTICAL SERVICES, INC.

8220 7th Avenue South Seattle, WA 98108 (206) 762-7599 Fax (206) 762-7665

March 10, 1993

COPY

Environmental Excavation
P. O. Box 1245
Lake Stevens, Wa 98258
Attn: Scott Waldal

Dear Scott:

Enclosed are the results of the analyses of samples submitted on 03/08/93 from the Sedro Woolley Project #921106.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the reported results, please feel free to call me.

Sincerely,

Jerry L. Lofgren
Laboratory Manager

JLL:sls

Enclosures

Date of Report: 03/10/93
Samples Submitted: 03/05/93
Project: Sedro Woolley
Analysis: WTPH-D
Units: mg/kg(ppm)

Client: Environmental Excav.
File ID: 03-004
Matrix: Soil

Lab ID	Client ID	Result*	Surrogate Recovery
03-004-1	1	860	65%
03-004-2	2	460	75%
03-004-3	3	740	78%

Quality Assurance

Method Blank		<50	105%
03-004-1 Duplicate		1170	77%
	RPD=30%(Rocky Soil)		
03-004-1 Matrix Spike		101%	82%
03-004-1 Matrix Spike Duplicate		101%	82%

*reported results corrected for sample moisture.



AMERICAN ANALYTICAL SERVICES, INC.

8220 7th Avenue South Seattle, WA 98108 (206) 762-7599 Fax (206) 762-7665

Attention Account Payable
Invoice# 9303-004

Bill To: Environmental Excavation Terms: Net 30
P. O. Box 1245 Invoice Date: 03/10/93
Lake Stevens, WA 98258

Attn: Scott Waldal, Project Manager
Samples Submitted: 03/08/93

Quantity	Analysis	Unit Cost	Total
3	WTPH-D	\$85.00	\$255.00

Amount Due.....\$255.00





AMERICAN ANALYTICAL SERVICES, INC.

8220 7th Avenue South Seattle, WA 98108 (206) 762-7599 Fax (206) 762-7665

March 2, 1993

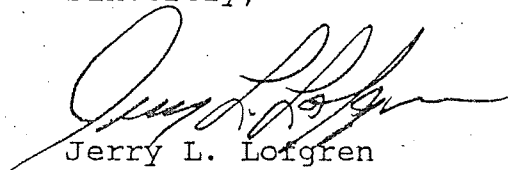
Environmental Excavation
P. O. Box 1245
Lake Steven, WA 98258
Attn: Scott Waldal

Dear Scott:


Enclosed are the results of the analyses of samples submitted on 02/27/93 from the Sedro Woolley Multicare Center Project.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding the reported results, please feel free to call me.

Sincerely,


Jerry L. Loigren
Laboratory Manager

JLL:sls

Enclosures 



Date of Report: 03/02/93
 Samples Submitted: 02/27/93
 Project: Sedro Woolley
 Multicare Center
 Analysis: WTPH-D
 Units: mg/kg (ppm)

Client: Enviro. Excava.
 File ID: 02-024
 Matrix: Soil

Lab ID	Client ID	Result*	Surrogate Recovery
02-024-1	Doug-1	<50	107%

Quality Assurance

Method Blank	<40	117%
02-024-1 Duplicate	<50	96%
02-024-1 Matrix Spike	87% Recovery	95%
02-024-1 Matrix Spike Duplicate	93% Recovery	115%

*reported results corrected for sample moisture.

Date of Report: 03/02/93 Client: Enviro. Excava.
Samples Submitted: 02/27/93 File ID: 02-024
Project: Sedro Woolley Matrix: Soil
 Multicare Center
Analysis: WTPH-HCID

Lab ID	Client ID	GC Characterization	Surrogate Recovery
02-024-1	Doug-1	<20 ppm Gasoline <50 ppm Diesel <100 ppm Oil	107%

Quality Assurance

Method Blank:	<20 ppm Gasoline <50 ppm Diesel <100 ppm Oil	117%
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ppm - parts per million

Date of Report: Febraury 5, 1993
Samples Submitted: February 1, 1993
Project: Multiservice Center
Analysis: WTPH-418.1

Client: Environmental Excavation
File ID: 02-001
Matrix: Soil

Lab ID #	Client ID	Percent Mositure	Result* mg/kg
02-001-1	Sidewall	25	260
Method Blank	---	--	<25
02-001-1 Dup.	Sidewall	25	280

* reported results corrected for sample moisture