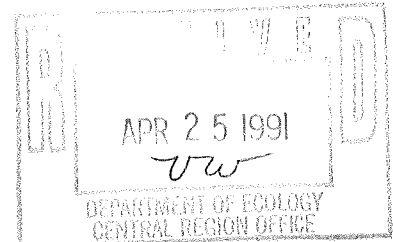
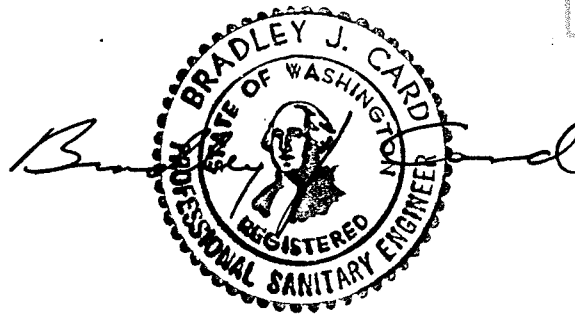


SITE CLOSURE REPORT
ON
UNDERGROUND STORAGE TANK CLEANUP
ZELENKA NURSERY, INC.

Warehouse Site
Sunnyside, Washington



SR 9/17/91 8B



February 1991

Job No. 90284

Prepared by

PLSA ENGINEERING & SURVEYING
WDOE LIC. NO. S000210
1120 West Lincoln Avenue
Yakima, WA 98902
(509) 575-6990

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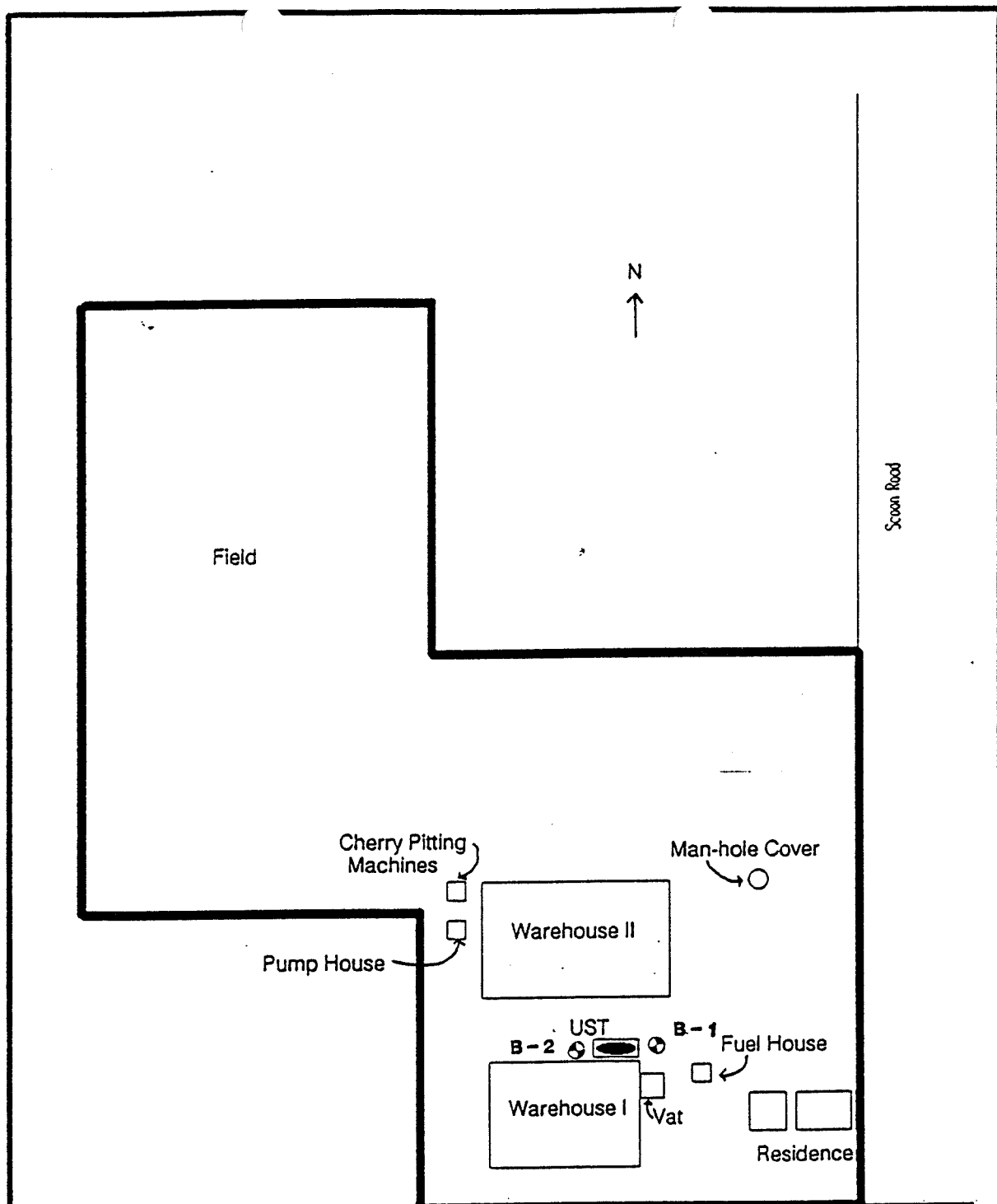
INTRODUCTION

Zelenka Nursery, Inc. removed an underground storage tank from their warehouse premises at Van Belle and Scoon Roads north of Sunnyside, Washington. The tank was 500 gallon capacity, steel, reported to be more than 15 years old, and contained gasoline. Hand auger sampling from the tank basin by RZA of Portland, Oregon found gasoline contaminated soil. Tank location is within the SE 1/4, SE 1/4, SEC 14, TWP 10N, R 22EWM. See RZA Plate 1.

This report summarizes site conditions, cleanup, and disposal of petroleum contaminated soil including the results of laboratory testing of representative soil samples for presence of Total Petroleum Hydrocarbons (TPH), benzene, toluene, ethylbenzene, and xylene (BTEX), and lead.

The contact person for this project is as follows:

Mr. Roy Putnam
Zelenka Nursery, Inc.
16127 Winans Street
Grand Haven, MI 49417-9652
phone (616) 842-1367



Van Belle Road ⊕ Hand Auger (Borings) Sample Locations

Plate 1. Site and Exploration Plan

JOB # 0-5441
 BY ELW
 DATE June 4, 1990
 SCALE Not To Scale



RZA · RITTENHOUSE-ZEMAN & ASSOC.
*Geotechnical Engineering &
 Hydrogeological Consultants*
 7409 SW Tech Center Drive (Suite 135)
 Portland, Oregon 97223-8024

SURFACE CONDITIONS

The tank basin was installed along the north basement wall of the warehouse and was covered with bare earth.

SUB-SURFACE CONDITIONS

Brown, silty sand extends from the surface to 10 feet below. A small flow of water (estimated 3 gpm) entered the bottom of the excavation from a westerly direction.

From general topography, it appears that the groundwater hydraulic gradient is to the south toward Sunnyside.

CONTAMINANT CHARACTERIZATION

Results of laboratory analysis of soil samples may be found in Appendix I, Client ID B-1, S-1, B-2, and S-2. Gasoline was the only contaminant identified in these samples.

CLEANUP METHOD

Excavation equipment used for tank removal was used to remove petroleum contaminated soil (PCS) and uncontaminated overburden. PCS decontamination by land farming on the nursery premises is now underway.

CONTAMINANT REMOVAL

The procedure proposed to achieve the cleanup goal was using the Photovac TIP 1 photoanalyzer to detect volatile organic compounds (VOC's) as contaminated soil is removed until significant readings are no longer obtained. At that point,

representative soil and water samples were collected for laboratory analysis to verify the TIP results. Laboratory analytical reports may be found in Appendix I.

Approximately 470 cubic yards of contaminated soil and overburden was removed.

CLEANUP RESULTS

Results of laboratory analysis of final soil and water samples from the tank basin listed both on Figure 1 and in Appendix I, show that cleanup was within WAC 173-340 cleanup guidelines.

DISPOSAL OF CONTAMINATED SOIL

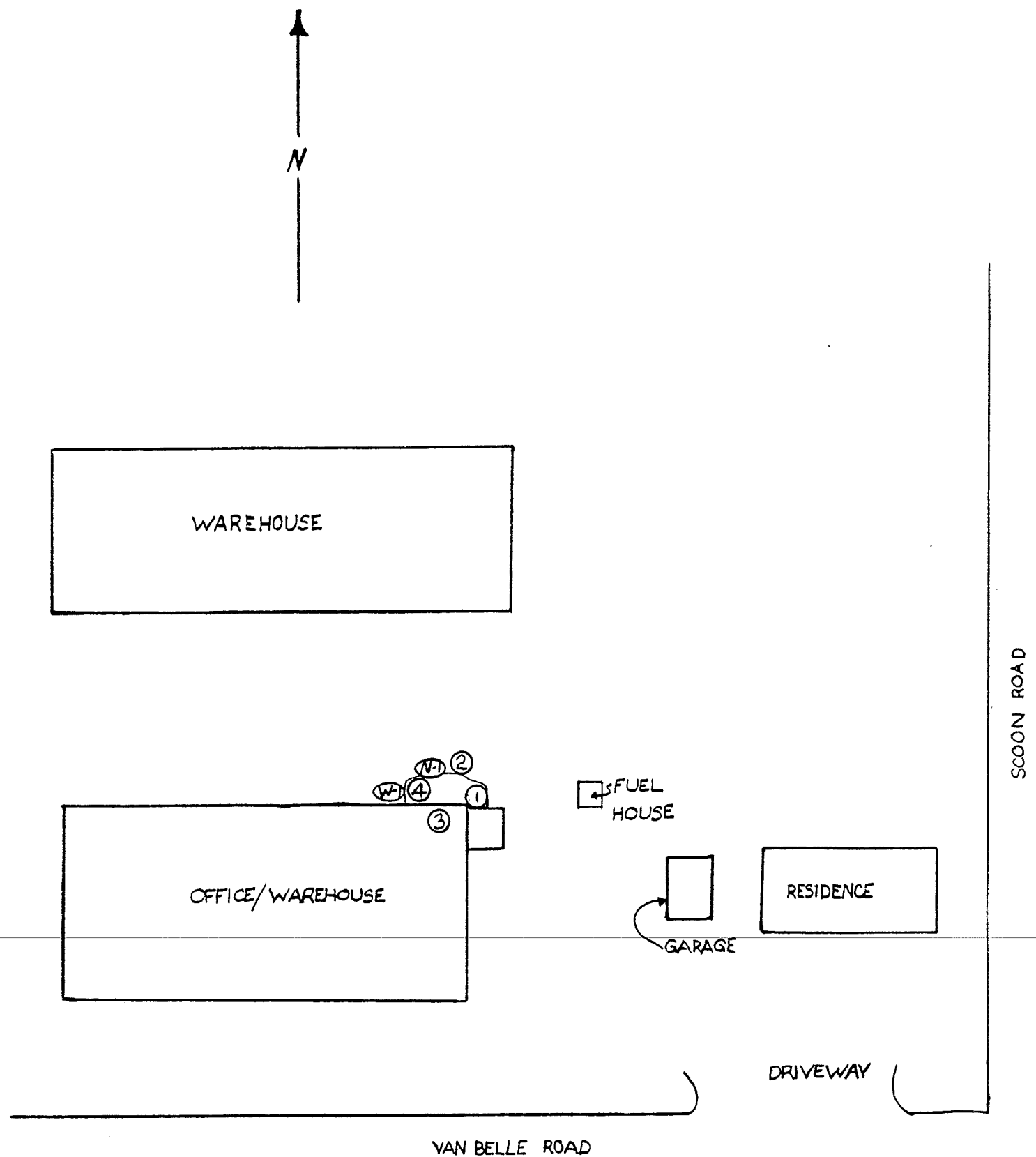
After the soil has been decontaminated by on-site land farming, and laboratory analysis of representative samples showing that decontamination has proceeded to at or below WAC 173-340 cleanup guidelines, it will be used to backfill the excavated tank basin.

SITE CLOSURE

After contaminated soil has been removed, the tank basin will be backfilled with decontaminated soil and the surface restored to previous use.

TANK DISPOSAL

The tanks and associated piping are presently stored on the premises pending cleaning and scrapping.



FINAL CLEANUP TEST RESULTS

SAMPLE NO.	MATRIX	TPH ¹ (ppm)	BTEX ² (ppm)	LEAD (ppm)
N-1	Soil	4.0	ND ³	1.48
W-1	Soil	5.0	ND	2.29
1	Soil	ND	ND	12.90
2	Soil	ND	ND	<1.60
3	Soil	ND	ND	12.20
4	Water	ND	ND	<0.05

- 1 - Total Petroleum Hydrocarbons (EPA 418.1)
- 2 - Benzene, Toluene, Ethylbenzene, and Xylenes
- 3 - Not detectable

③-LOCATION AND NUMBER
OF SOIL/WATER
SAMPLE TAKEN

FIGURE 1
FINAL CLEANUP
RESULTS
ZELENKA NURSERY
SUNNYSIDE, WA.
N.T.S.

APPENDIX I

Final Analytical Results

NATIONAL CHEM LAB

103 12th Avenue SW
Ephrata, WA. 98823
(509) 754-5725

Environmental Analysis Report

NCL Report #: WE0122202

Sample #: 90284

Customer: PLSA ENGINEERING & SURVEYING

PO #:

Received: 12/22/90 11:15

Received By: KIRBY

Sample Source: SOIL SUNNYSIDE

Parameter	Results	Date & Time Analyzed	Method
EPA Method 8020-BTEX & Lead & 418.1			
Sample W-1			
Benzene	<.1 mg/Kg	12/22/90 22:15	
Toluene	<.1 mg/Kg		
Ethylbenzene	<.1 mg/Kg		
Xylenes	<.1 mg/Kg		
Lead	2.29 mg/L		
418.1	5 mg/Kg		
Sample N-1			
Benzene	<.1 mg/Kg	12/22/90 22:15	
Toluene	<.1 mg/Kg		
Ethylbenzene	<.1 mg/Kg		
Xylenes	<.1 mg/Kg		
Lead	1.48 mg/L		
418.1	4 mg/Kg		

Approved By



Date 1-23-91

SOUND ANALYTICAL SERVICES, INC.

SPECIALIZING IN INDUSTRIAL & TOXIC WASTE ANALYSIS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE (206)922-2310 - FAX (206)922-5047

Report To: PLSA Engineering

Date: February 22, 1991

Report On: Analysis of Soil & Water

Lab No.: 16120

IDENTIFICATION:

Samples Received on 02-21-91

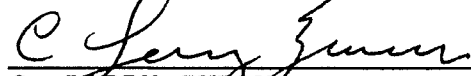
Project: 90284

ANALYSIS:

Lab Sample No.	RUSH 1	RUSH 2	RUSH 3	RUSH 4
Client Identification	1	2	3	4
Matrix/Units	Soil ppm	Soil ppm	Soil ppm	Water ppm
Benzene	< 0.05	< 0.05	< 0.05	< 0.001
Toluene	< 0.05	< 0.05	< 0.05	< 0.001
Ethyl Benzene	< 0.05	< 0.05	< 0.05	< 0.001
Xylenes	< 0.05	< 0.05	< 0.05	< 0.001
BTEX by EPA SW-846 Method 8020				
Total Petroleum Hydrocarbons by EPA Method 418.1	< 10.0	< 10.0	< 10.0	< 1.0
Total Lead	12.9	< 1.6	12.2	< 0.05

Note - BTEX and TPH 418.1 results are reported on an as received basis.

SOUND ANALYTICAL SERVICES


C. LARRY ZURAW