


GN Northern Job No. 198-325
GN Northern Document No. 198-325.RPT

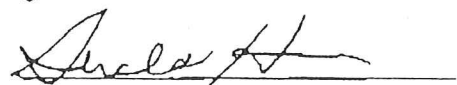
FS
4/15/04

PHASE II ENVIRONMENTAL SITE ASSESSMENT
UNDERGROUND STORAGE TANK SITES
STEWART SUBARU FACILITY
506 FRUITVALE BOULEVARD
YAKIMA, WASHINGTON

Prepared for
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July 17, 1998

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1.0 PROJECT DESCRIPTION

1.1 Introduction

GN Northern, Inc. (GN Northern) has completed a Phase II Environmental Site Assessment of two former underground storage tank (UST) locations at the Stewart Subaru Facility in Yakima, Washington. This report presents our findings from the review of previous site reports and the excavation of two test pits at the former tank locations. The field activities were completed on June 18, 1998.

1.2 Purpose and Scope

The purpose of this project was to assist the current owner of the property in assessing the current subsurface soil conditions near two former UST sites. This assessment is being conducted to facilitate a property transaction that is being considered for the site. Site specific objectives included evaluating the presence of petroleum hydrocarbons in subsurface media using field observations and confirmational laboratory sampling.

The following scope of services was performed for this assessment:

- An environmental professional was mobilized to the site with the appropriate equipment to perform the required site assessment. The environmental professional was registered with Washington State Department of Ecology (WDOE) to perform environmental site assessments of underground storage tank systems.
- Two test pits were completed where the owner's representative indicated the former USTs were located. Samples were collected from the base of the test pits for laboratory analysis.
- The excavation area was evaluated by our field personnel for signs of contamination including visible free product, soil discoloration, and odor. Selected soil samples were screened with a photoionization detector (PID) to determine the presence or absence of volatile organic vapors.
- Selected soil samples were collected from the test pits and shipped to a WDOE approved laboratory for total petroleum hydrocarbon - diesel extended analysis by Method NWTPH-Dx/Dx Ext.

- This report was prepared to summarize the field activities performed and the findings of the assessment.

1.3 Project Background

GN Northern was contacted by Mr. Tom Morin to complete an assessment of two former UST sites located at the Stewart Subaru Facility. The USTs were removed in 1990 and 1992 by Ken Leingang Excavating and SEACOR, respectively.

The tank removed in 1990 was located just west of the current showroom and had been used for waste oil storage (PLSA, 1990). An assessment of the tank excavation was completed by PLSA Engineering and Surveying. Elevated levels of 18,259 parts per million (ppm) total petroleum hydrocarbons were detected in a sample collected from the excavation. Approval was provided by WDOE to transport 100 cubic yards of impacted soil to the Anderson Rock Facility in Yakima, Washington. Mr Tom Morin indicated that the impacted soil was excavated and transported to the Anderson Rock Facility.

The tank removed in 1992 by SEACOR was located near the southwest corner of the Subaru Service Facility. The tank had been used for storage of used oil according to a Underground Storage Tank Closure Report prepared by SEACOR (SEACOR, 1991). Approximately 8 yards of contaminated soil was removed from the UST excavation. Due to the proximity of the building foundation to the tank excavation, soil containing hydrocarbon concentrations of 930 ppm were left in-place.

2.0 SITE CHARACTERISTICS

2.1 Site Description

The site is identified as the Stewart Subaru Facility. The site is located southwest of the intersection of North 5th Avenue and Fruitvale Boulevard and is divided into two separate parcels by Quince Street. The parcel to the north of Quince Street contains the offices, showroom and sales lot while the parcel to the south is the dealership's service facility and lot.

An approximate legal description for the site is the northeast quarter of the southeast quarter of section 13, township 13 north, range 18 east of the W.M. in Yakima County, Washington. The approximate location is depicted in Figure 1, the Site Location Map (Appendix 1). Site Plans are included as Figures 2 and 3 (Appendix 1).

2.2 Geology

The City of Yakima is situated on the western margin of the Columbia River Plateau physiographic province and near the eastern foothills of the Cascade Range. The Cascade Range and adjacent highlands are primarily composed of basalts and andesites. The Columbia Plateau is comprised of a series of flood basalts which cover most of central and eastern Washington. The basalt flows of the Columbia Basalt Group are Miocene in age, forming an extensive volcanic plateau (Camp et. al., 1982). The Columbia basalt is overlain by alluvial deposits in the study area.

The site area is generally level with elevations ranging between 1080 and 1090 feet above mean sea level (USGS, 1985). During our site assessment activities the subsurface soil was found to be silty sand overlying gravel with sand.

2.3 Hydrology

The nearest surface water is the westerly flowing Naches River and the southeasterly flowing Yakima River. Both rivers are located approximately one mile from the site. Groundwater was not encountered in the test pits excavated at the site. Based on topographic map review and prior

subsurface investigations within the City, the local groundwater flow direction is estimated to be toward the southeast toward the Yakima River. Groundwater is expected to fluctuate seasonally between 10 and 20 feet BGS.

3.0 ASSESSMENT PROCEDURES

3.1 Survey Methods

For each former UST location, a test pit was excavated. The excavation was surveyed for hydrocarbon staining that commonly creates discoloration of the soil. Dark grey, black, or green discoloration is suggestive of soil contaminated by petroleum products. Hydrocarbon odors also are often observable if a release has occurred. Soil samples are retained for field screening with a PID and for laboratory analysis based on field observations. Volatile organic vapor screening procedures consist of scanning excavated soil samples with a PID, Microtip Model 100, to determine if volatile organic compounds are present. Headspace samples are prepared by the sampler according to the following procedure: a) collect the samples in airtight plastic bags; b) puncture each bag with the PID instrument probe after sample temperatures have equilibrated; and c) withdraw the trapped air for analysis. A pump in the sampling device extracts gases for analysis. These field analyses provide a qualitative indication of the relative amounts of volatile residual liquid hydrocarbons present in the sample and are not to be interpreted as actual contaminant concentrations. Soil samples are retained for laboratory analysis based on field observations or at pre-specified locations.

3.2 Field Observations

An environmental professional from GN Northern arrived at the site to observe the test pit excavations and collect soil samples. Soils from the test pit excavations and stockpiles were visually examined for evidence of petroleum hydrocarbon contamination. Hydrocarbon odors were not detected in either test pit. PID instrument responses were 0.0 ppm for volatile organic vapor screening of select samples at the site. Following field screening procedures, a sample was collected from each test pit for laboratory analysis.

The test pit located west of the showroom was excavated to a depth of 8.5 feet BGS. Based on the presence of crushed aggregate along the north sidewall of the test pit, the sample from the test pit appears to represent the soil conditions just downgradient (south) of the tank excavation. Although the impacted soil encountered during the tank removal was located near the fill spout at the north

end of the excavation, we expect some impact, if present, would have been apparent at the depth explored in the test pit.

The test pit excavated near the service facility was located just east of the tank excavation perimeter based upon the presence of pea gravel in the west sidewall of the test pit. SEACOR's report indicates pea gravel along with native soil was used to backfill the tank excavation. The SEACOR report indicated impacted soil was located near the east end of the tank excavation. The tank excavation was extended to a depth of only 7 feet BGS. The test pit was completed to a depth of 8 feet BGS in the native soil and appears to have been located in the area most likely to have residual hydrocarbon concentrations, if present.

3.3 Analytical Results

Two representative soil samples were collected in 4 oz. glass jars with Teflon lids for laboratory analysis. All samples were placed in a cooler with ice and remained in the custody of GN Northern personnel until shipment to Transglobal Environmental Geosciences Northwest, Inc. (TEG), a WDOE approved laboratory in Lacey, Washington, by overnight courier. Time and date of sample collection, sample identification numbers, custody personnel, and time and date received by the laboratory were transcribed onto the chain-of-custody form for each sample. Soil samples were analyzed for NWTPH-Dx/Dx ext. This test method was selected based upon the former use of the UST systems. Analytical laboratory test results are summarized in Table 1 (Appendix 2). The laboratory reports and chain-of-custody documentation are provided in the Appendix. The sample locations are shown on Figures 2 and 3.

3.3.1 Analytical Results

Analytical laboratory test results (Tables 2 and 3) show that petroleum hydrocarbon contamination was not detected in soil samples from the base of the tank excavation. The detection limit of the analytical methods were set below the Model Toxics Control Act (MTCA) Method A cleanup level for waste oil in soil.

4.0 CONCLUSIONS

GN Northern has completed a Phase II environmental site assessment of two former underground storage tank sites located at the Stewart Subaru Dealership in Yakima, Washington. The purpose of the project was to assist the current owner in assessing the condition of the former tank locations with regard to current EPA and WDOE regulations and guidelines for the assessment of UST sites. The field assessment was completed on June 18, 1998.

In addition to the field assessment, GN Northern personnel reviewed underground storage tank closure reports and information supplied by the WDOE and Mr. Tom Morin. These reports indicate releases were discovered during the removal of the tank systems. Impacted soils were left in place during the removal process at the tank site near the service facility due to concerns with undermining the support for the adjoining building. The soil left in place had petroleum hydrocarbon concentrations of 930 ppm at a depth of approximately 7 feet BGS. Elevated petroleum hydrocarbons concentrations were detected in the soil at the north end of the tank excavation located west of the showroom. WDOE correspondences and notes suggest up to 100 cubic yards of impacted soil was approved for transport to the Anderson Rock Facility in Yakima, Washington for treatment. Mr Morin also indicated that overexcavation and removal of impacted soil was completed at this tank location.

Analytical laboratory test results, field screening and observations did not indicate that petroleum hydrocarbons were present in the soil exposed in the test pit excavations to the depth explored. Based on the reports reviewed and our findings, the releases from the UST systems do not appear to present a significant environmental concern.

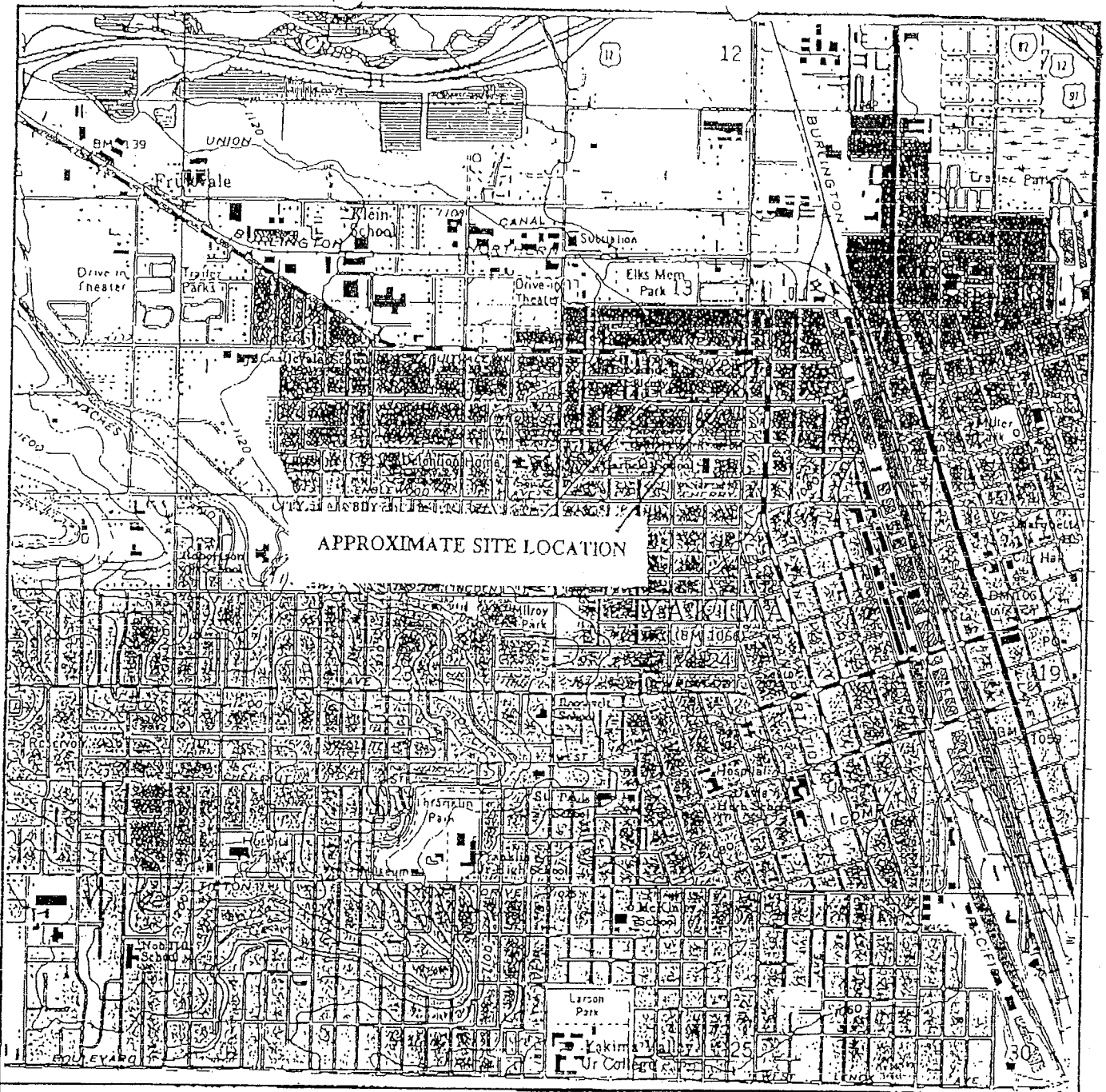
5.0 LIMITATIONS

This work was performed in accordance with the generally accepted practices of other consultants undertaking similar studies at the same time and in the same geographical area. GN Northern observed a degree of care and skill generally exercised by other consultants under similar circumstances and conditions. GN Northern's findings and conclusions must be considered not as scientific certainties, but as opinions based on our professional judgement concerning the significance of the data gathered during the course of monitoring. Other than this, no warranty is implied or intended.

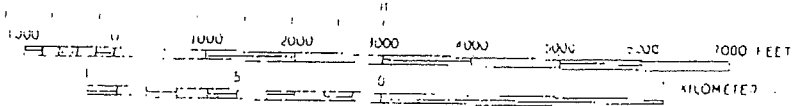
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APPENDIX 1
Figures



SCALE 1:24,000



CONTOUR INTERVAL 20 FEET
 DOTTED LINES REPRESENT 10 FOOT CONTOURS
 NATIONAL GEODESIC SURVEY DATUM 1983



Northern, Inc.

Site Location Map
 USGS 7.5 Minute Series (Yakima West Quadrangle)
 Phase II Environmental Site Assessment
 Stewart Subaru Facility
 Yakima, Washington

Job No.
198-325

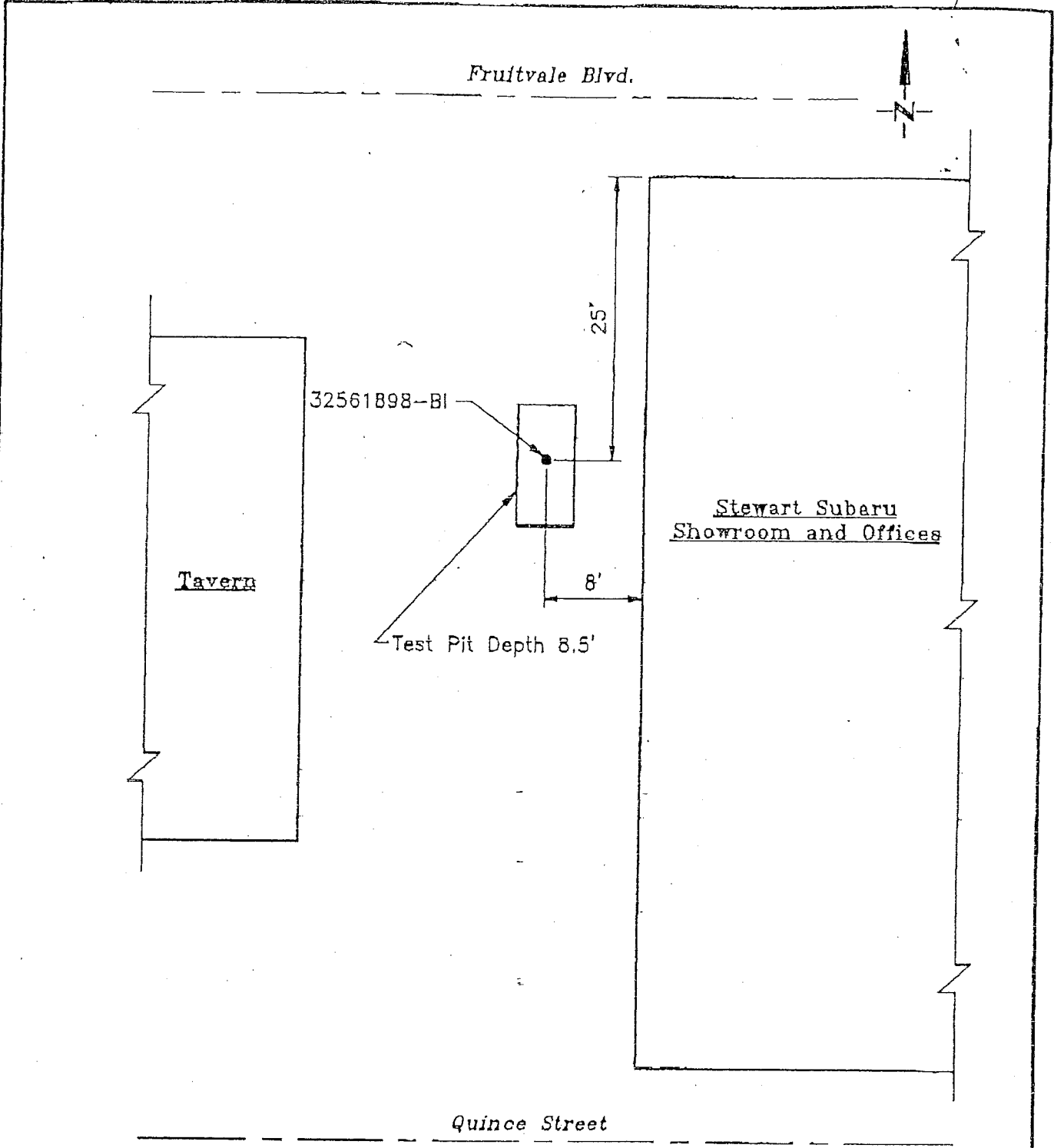
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1985

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GH

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As Shown

FIGURE NO.
1



Scale: None

Legend

● 32561898-BI SAMPLE LOCATION



Northern, Inc.

Job No.
198-325

DATE:
7/98

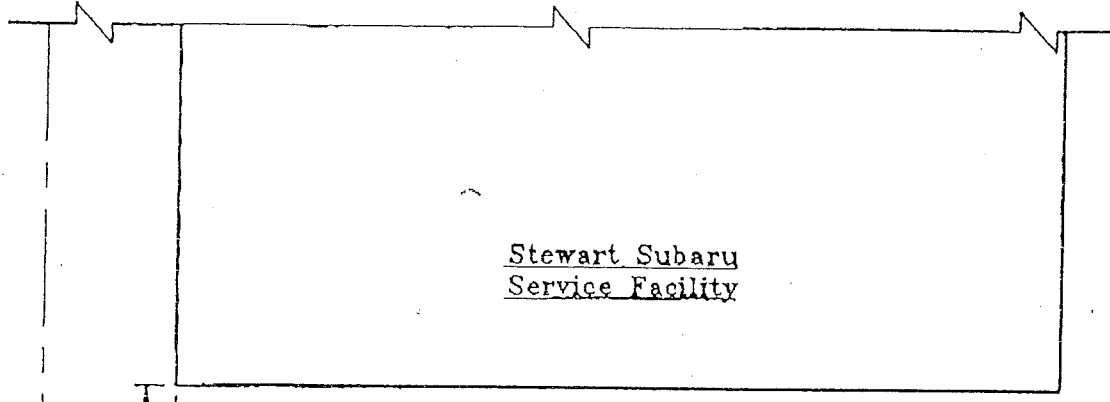
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GH

REVIEWED BY:
GH

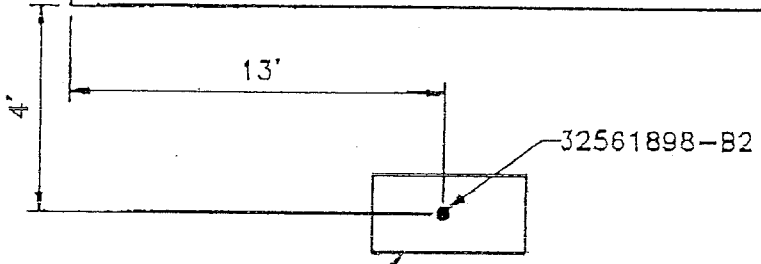
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FIGURE NO.
2

Site Plan
Stewart Subaru Facility
Test Pit Location Map
Yakima, Washington



Stewart Subaru Service Facility



Test Pit Depth 8.5'

North Sixth Ave.

Parking Lot

Scale: None

Legend

● — 32561898-B2 SAMPLE LOCATION



Northern, Inc.

Job No.
198-325

DATE:
7/98

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SCALE:
As Shown

FIGURE NO.
3

Site Plan
Stewart Subaru Service Facility
Test Pit Location Map
Yakima, Washington

APPENDIX 2
Analytical Laboratory Test Results and Chain-of-Custody Documentation

Table 1
*Summary of NWTPH-Dx/Dx extended Analysis in Soil
 Stewart Subaru Facility
 Yakima, Washington*

Date Sample No.	Location	Sample Type Matrix	Analyte	Concentration ²
				TPH ³ (mg/kg)
6-18-98 32561898-B1	Base Test Pit @ 8.5' West of Showroom	Grab Soil	Heavy Oil	ND
			Diesel	ND
6-18-98 32561898-B2	Base of Test Pit @ 8.0' South of Service Bldg.	Grab Soil	Heavy Oil	ND
			Diesel	ND

Notes: ¹ Sample locations are characterized by area from which the sample was obtained and the depth (in feet) below ground surface.

² Soil sample results are reported as a dry weight basis in milligrams per kilogram (mg/kg).

³ TPH = Total Petroleum Hydrocarbons.

ND indicates compound not detected at the listed method detection limit.
 Method Detection Limits: Heavy Oil (40 mg/kg), diesel fuel (20 mg/kg).

TRANSGLOBAL ENVIRONMENTAL GEOSCIENCES NORTHWEST INC.

STEWART SUBARU-FORMER USTS PROJECT

Washington

GN Northern, Inc.

Project No. 198-32S

Diesel and Oil in Soil by NWTPH-Dx/Dx-Extended

Sample Number	Date	Recovery %	Diesel mg/kg	Heavy Oil mg/kg
Meth. Blank	06/19/98	110	nd	nd
32561898-B1	06/19/98	110	nd	nd
32561898-B2	06/19/98	87	nd	nd
MDL			20	40

"nd" Indicates not detected at the listed detection limit.

"int" Indicates that interference peaks prevent determination.



OnSite Environmental Inc.
 14924 NE 31st Circle • Redmond, WA 98052
 Fax: (206) 885-4603 • Phone: (206) 883-3881

Chain of Custody

Turn Around Time Requested
 (Check One)

- Same Day
- 24 Hours
- 48 Hours
- Standard
- (other)

Project Chemist

Laboratory No.

Requested Analysis

Company: GN Northern, Inc
 Project No: 198-325
 Project Name: Stewart Subaru - Former USTs
 Project Manager: G. Harow

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Vol Cont
32561898-B1		6-18-98	9:30	Soil	1
32561898-B2		6-18-98	10:30	Soil	2

Requested Analysis	Result
WTPH-HCID	
WTPH-G/BTEX	
WTPH-D	
WTPH-418.1	
Volatiles by 8240/624	
Volatiles by 8260	
Chlorinated Volatiles by 8240/8260/624	
Semivolatiles by 8270/625	
PAHs by 8270/625	
PCB's by 8080/608	
Total RCRA Metals (8)	
TCLP Metals	
XX TPH-Dext.	
% Moisture	

RELINQUISHED BY	DATE	RECEIVED BY	DATE	COMMENTS
<u>Shirley Harow</u>	6-18-98	<u>J. W. [Signature]</u>	6-18-98	
<u>GN Northern, Inc</u>	4:30 pm	<u>P. G. [Signature]</u>	09:30	

RECEIVED BY: [Signature] DATE: 6-18-98

RECEIVED BY: [Signature] DATE: 09:30

DATE REVIEWED: _____

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