# SITE ASSESSMENT ENGINEERING REPORT

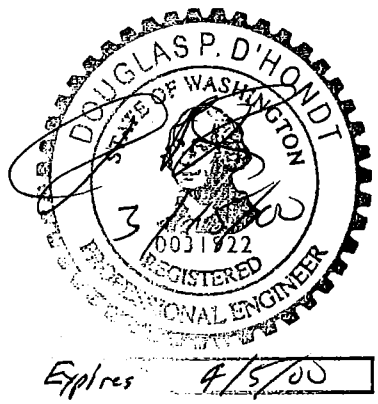
# UNDERGROUND STORAGE TANK REMOVAL

UST # 1967

## NOLAND-DECOTO FLYING SERVICE

## 2810 WEST WASHINGTON AVENUE

## YAKIMA, WASHINGTON

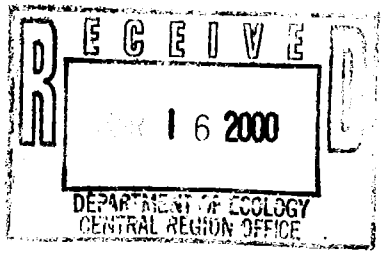



**March, 2000**

**Job No. 99379**

**Prepared by**

**PLSA ENGINEERING & SURVEYING**
**1120 West Lincoln Avenue**
**Yakima, WA 98902**
**(509) 575-6990**



# SUMMARY

# SITE ASSESSMENT ENGINEERING REPORT

# UNDERGROUND STORAGE TANK REMOVAL

# NOLAND-DECOTO FLYING SERVICE
# 2810 WEST WASHINGTON AVENUE
# YAKIMA, WASHINGTON

Noland-Decoto Flying Service decommissioned a 500 gallon, steel, underground storage tank at their premises at 2810 West Washington Avenue, Yakima, Washington. The tank contents was heating oil. The tank was located adjacent to a maintenance building. Location of the tank basin is depicted on Figure 1.

Inspection of the tank upon removal found it to be corroded. The tank basin extended into the ground water table. No free product was observed on the ground water surface.

The tank was bedded in native silt. A soil sample was collected from the tank basin at the bottom of the tank. This sample was submitted to Sound Analytical Laboratory for analysis for WTPH-HCID. Analytical results may be found in Appendix I.

Petroleum contaminated soil was found in the bottom of the tank basin. Approximately 20 cubic yards of this contaminated soil is proposed to be removed and transported to Ron Anderson's Rocky Top Quarry for soil remediation by land farming. Contamination is believed to have extended under the building. Subsequent ground water samples collected from an exploratory pit adjacent to the tank basin and three monitoring wells found no petroleum contamination in excess of levels specified in WAC 173-340-720, Table 1.

# SITE ASSESSMENT ENGINEERING REPORT

# UNDERGROUND STORAGE TANK REMOVAL

## NOLAND-DECOTO FLYING SERVICE
## 2810 WEST WASHINGTON AVENUE
## YAKIMA, WASHINGTON

## INTRODUCTION

In effort to comply with current laws and regulations relating to underground storage tanks, Noland-Decoto Flying Service decommissioned one steel, underground storage tank from the premises at 2810 West Washington Avenue, Yakima, Washington. The steel tank was used for storing heating oil. The tank location was in SW ¼, NW ¼, SEC 35, TWP 13 N, R18-EWM.

This report summarizes site conditions and the results of laboratory testing of representative soil and ground water samples for presence of TPH-D. Engineers from PLSA Engineering and Surveying, experienced with local soil conditions recently monitored removal of the underground storage tank (UST), and collected samples for petroleum contamination analyses.

Tank removal was conducted by Ken Leingang Excavating.

The owner's representative and contact person for this project follows:

Jim Decoto
4603 Douglas Drive
Yakima, Washington 98908
Phone (509) 248-8785

## SITE BACKGROUND

The site is a collection of buildings of various size which has been used for the storage and maintenance of aircraft for over thirty years.

## SURFACE CONDITIONS

A paved parking area covered the tank basin.

## SUB-SURFACE CONDITIONS

Native soil consists of silt overlying an alluvial stratum of sand gravel and cobbles. Groundwater was encountered approximately 7 feet below the ground surface. The tank was bedded in native silt.

From monitoring well measurements, it appears that the groundwater hydraulic gradient is to the southeast towards the Yakima River located approximately 1.5 mile to the east. See Figure 1.

## SAMPLING PLAN

A representative characterization soil sample was collected from the bottom of the tank basin. Sample containers supplied by the analytical laboratory were clean glass with Teflon lined, screwed caps. Sampling equipment was cleaned with non-petroleum based detergent between samplings.

Sound Analytical Laboratories, WDOE accreditation C027, in Tacoma, Washington was selected to perform the analyses. Quality control procedures are on file at Sound Analytical.

All samples were stored under refrigeration and shipped to the laboratory by overnight express in a refrigerated, insulated container. Copies of analytical results and Chains of Custody may be found in Appendix I.

## CONTAMINANT CHARACTERIZATION

Soil excavated from the tank basin was evaluated for petroleum contamination using a photo-ionization detector, and visual and olfactory means. Evidence of petroleum contamination was noted during sampling of the tank basin.

After the contamination was removed, ground water samples were collected from an exploratory pit adjacent to the tank basin and from three recently constructed monitor wells. These samples were submitted to a laboratory for analysis by TPH-D. See Figure 1 for site information.

Analysis of the characterization sample from the tank basin was found to contain as much as 3,800 mg/kg of diesel.

No other analates in excess of levels specified in WAC 173-340-740, Table 2 were found in final soil sample from the tank basin. See Appendix I, Analytical Results.

## FINAL SITE CLOSURE

Approximately 20 cubic yards of soil suspected of being contaminated with petroleum is stockpiled and is proposed to be removed and shipped to Ron Anderson's Rocky Top Quarry for remediation by land farming. Sampling of the ground water from adjacent to the tank basin and from monitor wells found no contamination in excess of levels specified in WAC 173-340-720, Table 1. No evidence of confirmed petroleum contamination could be found in the ground water.

Petroleum contamination is covered by paving and a building. Exposure to the contamination at this commercial site is minimal.

## CONCLUSIONS

The tank exhibited minor corrosion.

Petroleum contamination resulted from the presence of the UST used to store heating oil. Some petroleum contaminated soil was removed from this tank basin which is proposed to be transported to a disposal site for remediation.

There is some visual evidence of remaining petroleum contamination in the soil under the building.

Ground water analytical results indicate ground water was not contaminated with heating oil from this source. These analytical results indicate the contamination is confined to the Noland-Decoto Flying Service site.

## RECOMMENDATIONS

No further action is recommended.

## SITE CLOSURE

The tank basin was backfilled with clean, uncompacted soil and the surface restored to its former condition.

## TANK AND PIPING DISPOSAL

Tanks were cleaned and disposed of as scrap. Piping within the tank basin was removed with the tanks.

## PERMANENT CLOSURE FORM

A completed Permanent Closure form may be found in Appendix II.

# APPENDIX I

# ANALYTICAL RESULTS

# AND

# CHAINS OF CUSTODY

# SOUND ANALYTICAL SERVICES, INC.

| | |
|---|---|
| Client Name | PLSA Engineering |
| Client ID: | 1 |
| Lab ID: | 85796-01 |
| Date Received: | 11/29/99 |
| Date Prepared: | 11/29/99 |
| Date Analyzed: | 11/30/99 |
| % Solids | 71.82 |
| Dilution Factor | 20 |

**Diesel and Motor Oil by NWTPH-Dx Modified**

| | | | Recovery Limits | |
|---|---|---|---|---|
| **Surrogate** | **% Recovery** | **Flags** | **Low** | **High** |
| o-terphenyl | 109 | | 50 | 150 |

Sample results are on a dry weight basis.

| **Analyte** | **Result (mg/kg)** | **PQL** | **MDL** | **Flags** |
|---|---|---|---|---|
| #2 Diesel | 3800 | 130 | 80 | X1 |
| Motor Oil | 250 | 260 | 130 | J |

X1 - Chromatogram suggests this might be jet fuel, kerosene or similar product

# SOUND ANALYTICAL SERVICES, INC.

| | |
|---|---|
| Client Name | PLSA Engineering |
| Client ID: | W-1 |
| Lab ID: | 87883-01 |
| Date Received: | 3/2/00 |
| Date Prepared: | 3/2/00 |
| Date Analyzed: | 3/2/00 |
| % Solids | - |
| Dilution Factor | 5 |

**Diesel and Motor Oil by NWTPH-Dx Modified**

| | | | Recovery Limits | |
|---|---|---|---|---|
| **Surrogate** | **% Recovery** | **Flags** | **Low** | **High** |
| o-terphenyl | 92.8 | | 50 | 150 |

| **Analyte** | | **Result (mg/L)** | **PQL** | **MDL** | **Flags** |
|---|---|---|---|---|---|
| #2 Diesel | | 0.13 | 0.24 | 0.12 | J |
| Motor Oil | ND | | 0.48 | 0.24 | |

# SOUND ANALYTICAL SERVICES, INC.

| | |
|---|---|
| Client Name | PLSA Engineering |
| Client ID: | W-2 |
| Lab ID: | 87883-02 |
| Date Received: | 3/2/00 |
| Date Prepared: | 3/2/00 |
| Date Analyzed: | 3/2/00 |
| % Solids | - |
| Dilution Factor | 5 |

**Diesel and Motor Oil by NWTPH-Dx Modified**

| | | | Recovery Limits | |
|---|---|---|---|---|
| **Surrogate** | **% Recovery** | **Flags** | **Low** | **High** |
| o-terphenyl | 18.7 | X9 | 50 | 150 |

| **Analyte** | | **Result (mg/L)** | **PQL** | **MDL** | **Flags** |
|---|---|---|---|---|---|
| #2 Diesel | ND | | 0.24 | 0.12 | |
| Motor Oil | ND | | 0.48 | 0.24 | |

# SOUND ANALYTICAL SERVICES, INC.

| | |
|---|---|
| Client Name | PLSA Engineering |
| Client ID: | W-3 |
| Lab ID: | 87883-03 |
| Date Received: | 3/2/00 |
| Date Prepared: | 3/2/00 |
| Date Analyzed: | 3/2/00 |
| % Solids | - |
| Dilution Factor | 5 |

**Diesel and Motor Oil by NWTPH-Dx Modified**

| | | | Recovery Limits | |
|---|---|---|---|---|
| **Surrogate** | **% Recovery** | **Flags** | **Low** | **High** |
| o-terphenyl | 92.3 | | 50 | 150 |

| **Analyte** | | **Result (mg/L)** | **PQL** | **MDL** | **Flags** |
|---|---|---|---|---|---|
| #2 Diesel | | 0.12 | 0.24 | 0.12 | J |
| Motor Oil | ND | | 0.48 | 0.24 | |

# SOUND ANALYTICAL SERVICES, INC.

| | |
|---|---|
| Lab ID: | Method Blank - DI2518 |
| Date Received: | - |
| Date Prepared: | 3/2/00 |
| Date Analyzed: | 3/2/00 |
| % Solids | - |
| Dilution Factor | 5 |

**Diesel and Motor Oil by NWTPH-Dx Modified**

| Surrogate | % Recovery | Flags | Recovery Limits Low | High |
|---|---|---|---|---|
| o-terphenyl | 99.8 | | 50 | 150 |

| Analyte | | Result (mg/L) | PQL | MDL | Flags |
|---|---|---|---|---|---|
| #2 Diesel | ND | | 0.25 | 0.13 | |
| Motor Oil | ND | | 0.5 | 0.25 | |

# SOUND ANALYTICAL SERVICES, INC.

ANALYTICAL & ENVIRONMENTAL CHEMISTS

4813 PACIFIC HIGHWAY EAST, TACOMA, WASHINGTON 98424 - TELEPHONE: (253) 922-2310 - FAX: (253) 922-5047


## DATA QUALIFIERS AND ABBREVIATIONS

B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).

B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).

C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be $\leq 40\%$.

C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be $> 40\%$. The higher result was reported unless anomalies were noted.

M: GC/MS confirmation was performed. The result derived from the original analysis was reported.

D: The reported result for this analyte was calculated based on a secondary dilution factor.

E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.

J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.

MCL: Maximum Contaminant Level

MDL: Method Detection Limit

N: See analytical narrative.

ND: Not Detected

PQL: Practical Quantitation Limit

X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____ .

X2: Contaminant does not appear to be "typical" product.

X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.

X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.

X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.

X5: Matrix spike recovery was not determined due to the required dilution.

X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.

X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.

X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.

X8: Surrogate recovery was not determined due to the required dilution.

X9: Surrogate recovery outside advisory QC limits due to matrix interference.

SOUND ANALYTICAL SERVICES, INC.
ANALYTICAL & ENVIRONMENTAL CHEMISTS

...3 P...c H..., Eas.
Tacoma, Washington 98424
(253) 922-2310 • FAX (253) 922-5047

# CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

CLIENT: PLSA
PROJECT NAME: 99353
CONTACT: Doug D. Fields
PHONE NO: 509-575-6990

| LAB # | SAMPLE I.D. | DATE | TIME | MATRIX | # of Containers | ANALYSIS REQUESTED: Halogenated Volatiles EPA 601/8010 | Aromatic Volatiles EPA 602/8020 | Chlorinated Pest., PCB's EPA 608/8080 | PAH's | Volatile Organics EPA 624/8240 (GC/MS) | Semi-volatiles EPA625/8270 (GC/MS) | TPH 418.1 | Oil & Grease | Total Metals (Specify below) | TCLP Extraction: 8 Metals | TCLP Extraction: Volatiles | TCLP Extraction: Semi-volatiles | TCLP Extraction: Pesticides & Herbicides | 8 Lead | TPH-D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 6/23 | 1430 | Soil | 1 | | | | | | | | | | | | | | ✓ | ✓ |

| | Signature | Printed Name | Firm | Time / Date |
|---|---|---|---|---|
| Relinquished By | | Doug Fields | PLSA | 6/23/97 1435 |
| Received By | Stacy | Stacy | SAS | 6/23/97 1435 |
| Relinquished By | | | | |
| Received By | | | | |
| Relinquished By | | | | |
| Received By | | | | |

SPECIAL INSTRUCTIONS/COMMENTS:

These samples will be disposed of 45 days after receipt.
Check this box to have samples returned ☐.

Please Rush

Page ____ of ____

SOUND ANALYTICAL SERVICES, INC.
ANALYTICAL & ENVIRONMENTAL CHEMISTS
...3 Pacific Hwy. East
Tacoma, Washington 98424
(206) 922-2310 • FAX (206) 922-5047

87883

# CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

CLIENT: PLSA
PROJECT NAME: ~~Dana~~ 99379
CONTACT: ~~3/1/00~~ Dana
PHONE NO: 509-575-6970

| LAB # | SAMPLE I.D. | DATE | TIME | MATRIX | # of Containers | Halogenated Volatiles EPA 601/8010 | Aromatic Volatiles EPA 602/8020 | Chlorinated Pest., PCB's EPA 608/8080 | PAH's | Volatile Organics EPA 624/8240 (GC/MS) | Semi-volatiles EPA625/8270 (GC/MS) | TPH 418.1 | Oil & Grease | Total Metals (Specify below) | TCLP Extraction: 8 Metals | TCLP Extraction: Volatiles | TCLP Extraction: Semi-volatiles | TCLP Extraction: Pesticides & Herbicides | TPH - Diesel |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W-1 | 2/29 | | W | 1 | | | | | | | | | | | | | | |
| | W-2 | " | | " | 1 | | | | | | | | | | | | | | |
| | W-3 | " | | " | 1 | | | | | | | | | | | | | | |

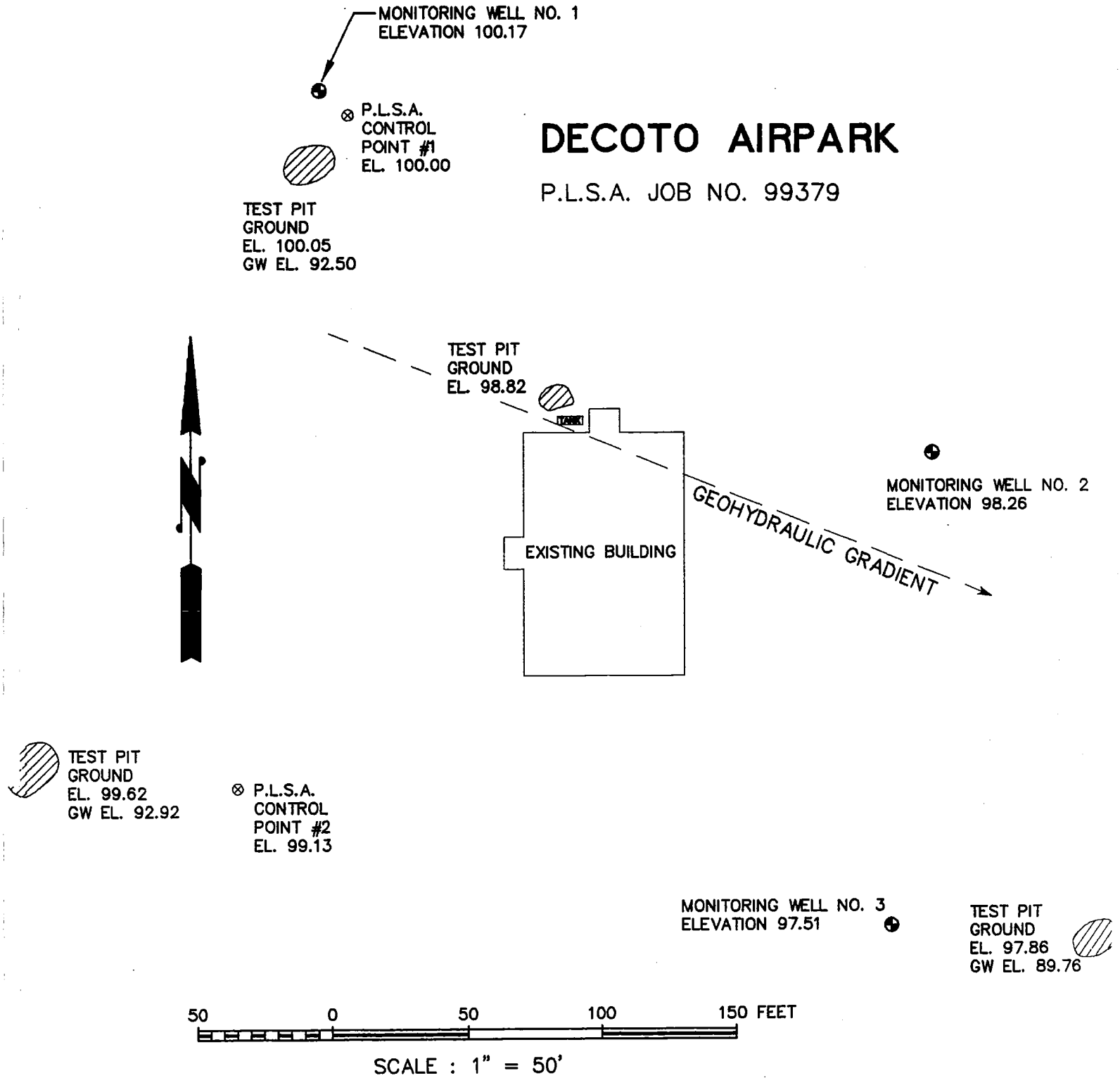
ANALYSIS REQUESTED:

| | Signature | Printed Name | Firm | Time / Date |
|---|---|---|---|---|
| Relinquished By | | Dana | PLSA | 1300 3/1/00 |
| Received By | Diana | Giang | STS | 1130 3/2/00 |
| Relinquished By | | | | |
| Received By | | | | |
| Relinquished By | | | | |
| Received By | | | | |

SPECIAL INSTRUCTIONS/COMMENTS:
Please Rush

# APPENDIX II

# PERMANENT CLOSURE FORM




MONITORING WELLS LOCATED IN THE FIELD
ON 3/10/2000

# FIGURE 1

WASHINGTON STATE DEPARTMENT OF ECOLOGY

# UNDERGR( )ND STORAGE TANK
# Closure and Site Assessment Notice

See back of form for instructions

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

Please ✓ the appropriate box(es)
☐ Temporary Tank Closure ☐ Change-In-Service ☒ Permanent Tank Closure ☐ Site Check/Site Assessment

## Site Information

Site ID Number (Available from Ecology if the tanks are registered)
Site/Business Name Decoto Air Park
Site Address 2804 West Washington Ave (Street)
City/State Yakima Wa
Zip Code 98902 Telephone (509) 248-1370

## Owner Information
(This form will be returned to this address)

UST Owner/Operator Jim Decoto
Mailing Address 4603 Douglas Dr. (Street)
(P.O. Box)
City/State Yakima Wa 98908
Zip Code 98908 Telephone (509) 966-8447

Owner's Signature

## Tank Closure/Change-In-Service Company

Service Company Ken Leingang Excavating, Inc
Certified Supervisor James W Dees Decommissioning Certification No. 1057049.26
Supervisor's Signature James W Dees
Address 1117 N. 27th Ave (Street) (P.O. Box)
City Yakima State Wa Zip Code 98902 Telephone (509) 575-5507

## Site Check/Site Assessor

Certified Site Assessor PLSA Engineering
Address Street 1120 W Lincoln P.O. Box
City Yakima State Wa Zip Code 98902 Telephone (509) 575-6990

## Tank Information

| Tank ID | Closure Date | Closure Method | Tank Capacity | Substance Stored |
|---|---|---|---|---|
| | 11.99 | Removed | 500 | heating oil |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Contamination Present at the Time of Closure

☐ Yes ☒ No ☐ Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☐ Yes ☐ No

If contamination is present, has the release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the TOXICS CLEANUP PROGRAM at 1-800-826-7716 (voice) OR (360) 407-6006 (TDD).