F

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

October 21, 2000

RON WITZEL
Q LUBE INC
1385 WEST 2200 SOUTH
SALT LAKE CITY UTAH 84119

Re: Q Lube # 1068
File No. 26-96-0364
Facility ID: 10837

Dear Mr. Witzel:

The Department of Environmental Quality (Department) has completed its review of the information submitted to date concerning the underground storage tank (UST) decommissioning and cleanup conducted at 10235 NE Halsey Street in Portland, Oregon, The Department has determined that the cleanup appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360 and that no further action is required at this time.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them, including:

1. One (1) 6000-gallon UST was decommissioned by removal in 1996. The UST was manufactured and permitted as three separate compartments, two new oil and one waste oil. No holes were observed in the UST during decommissioning. The UST was cleaned and transported to Schnitzer Steel for recycling.

2. Product and waste oil was pumped out of the UST compartments and transferred to above ground tanks for storage at this facility. The UST was triple-rinsed and 200 gallons of rinsate transported to Sunwest Energy Corp., for recycling.

3. The product piping was drained back into and detached from the UST. The vent lines were cut flush at the pavement surface, all product piping and vent lines were then sealed.

4. During excavation to the top of the UST, contamination was observed around the waste oil compartment fill pipe and in the UST backfill. One soil sample (S-1) was collected from obviously contaminated soil in the waste oil fill pipe area. Initial analytical results by test method TPH HCID indicated a detection of diesel and heavy oil. Further testing of sample S-1 by method 418.1m for soils indicated petroleum hydrocarbons occurring at a concentration of 8800 mg/kg.

5. Soil sample S-1 was the most contaminated sample collected and was subjected to additional testing and analysis. The results of analysis for metals, cadmium, chromium, and lead were not detected. The results of analysis for volatile chlorinated or aromatic solvents were not detected except for o-xylene at 0.012 mg/kg.

6. Up to 101.53 tons of contaminated soil was transported to TPST Soil Recyclers of Oregon for thermal desorption.

7. Four final confirmatory soil samples collected from the former UST cavity following removal of the UST and contaminated soil indicated that petroleum hydrocarbons were not detected above 53 mg/kg by method 418.1m, which is less than the most stringent cleanup level of 100 mg/kg for diesel and heavy oil.

8. Groundwater was not observed during the decommissioning or excavation of contaminated soils.

The Department's determination will not be applicable if new or undisclosed facts show that the cleanup does not comply with the referenced rules. The Department's determination also does not apply to any conditions at the site other than the release of diesel specifically addressed in the file.

Please note that pursuant to OAR 340-122-360(2), a copy of your report must be retained until ten (10) years after the first transfer of the property. We recommend that a copy of this information be kept with the permanent property records.

Your efforts to comply with the regulations to ensure that your property has been adequately cleaned up have been appreciated. If you have any questions, please feel free to contact me at (503) 229-5496.

Sincerely,

Gregory Toran
UST Compliance Officer

cc: Gregory Toran-ODEQ/NWR

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
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August 4, 2000

RON WITZEL
Q LUBE INC
1385 WEST 2200 SOUTH
SALT LAKE CITY UTAH 84119

Re: Q Lube # 1068
File No. 26-96-0364
Facility ID: 10837

Dear Mr. Witzel:

I have been assigned as project manager for the above referenced UST decommissioning and cleanup site and I have recently completed a review of the file. Based on that file review it appears the site is eligible for issuance of a no further action (NFA) letter. Upon payment of the final invoice, the Department will issue the NFA.

On any correspondence regarding this site, please include the site name and log number as it appears above for the benefit of our support staff processing the mail. If there are any questions in the above matters, please feel free to call me at (503) 229-5496.

Sincerely,

Gregory Toran
UST Compliance Specialist

cc: Gregory Toran-ODEQ/NWR

PERIODIC REVIEW

DATE 7/31/00

FILE NUMBER 26-96-0364 f # 10837

SITE NAME @ Lube

BY GREG TORAN

- ☐ ADD START DATE _____
- ☐ ADD CONTROL DATE _____

REGULATED TANKS YES NO

- ☑ FEES PAID
- ☑ TANKS CLOSED ON SEQUENT
- ☐ ADDITIONAL INFORMATION NEEDED Add f #

- ☑ MATRIX SITE
- ☑ APPEARS TO BE COMPLETE
- ☐ ADDITIONAL INFO REQUESTED _____

- ☐ G/WATER
- ☐ ADDITIONAL INFO REQUESTED _____

COMMENTS Product transferred to AST's at this location. 3 compartment UST total 6k gallon, removed 8/13/96. Contamination noted at fill pipes. lines drained and sealed. staining on waste oil end of UST. No water. Oil detection At w/oil fill. 101.53 tons of PCS to TPST. 8800 ppm at fill by 418.1m. Tank pit, 4 samples at 53 ppm or less. Contamination in backfill #1, 8800 ppm HCID/418.1. diesel, heavy oil detect.

Oregon
John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region
2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
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April 20, 2000

CAROL M. BELLON
Q LUBE, INC.
1385 WEST 2200 SOUTH
SALT LAKE CITY UT 84119

Re: Q LUBE #1068
File No.: 26-96-0364

The purpose of this letter is to provide an update on your underground storage tank (UST) cleanup project, located at 10235 NE HALSEY in PORTLAND, Oregon, and to inform you of some changes to the DEQ's program. You are receiving this letter because you or your contractor reported a release from the UST system at this property and because the DEQ has not assigned your project to a project manager or closed out your file. File closure occurs when cleanup has met the appropriate requirements and the DEQ has reviewed the reports and issued a "no further action" (nfa) letter.

BACKLOGGED PROJECTS

The DEQ's first priority is to work on projects that pose the highest threat to human health or the environment. Due to staffing limitations, not all projects are assigned to project managers for review and are placed on DEQ's backlog of work needing to be completed.

To accommodate people who do not want to (or cannot) wait years for the DEQ to work down its list of priorities, the DEQ has set up a program by which responsible parties can request oversight. Filling out and signing a "cost recovery agreement" does this. By signing this document, the responsible party agrees to work with the DEQ in resolving the cleanup issues and agrees to pay the oversight costs which DEQ is required by law to collect.

Once a "cost recovery agreement" has been received for a project, DEQ places the project on a waiting list for assignment to the next available project manager. How long this takes depends on a lot of factors including current DEQ staffing and the number of high priority projects that need to be dealt with. In the past, it has taken up to two years for DEQ project managers to be assigned to a project. Currently the wait is about six months for more complicated projects. If there is an immediate need (i.e. a property transaction pending) for DEQ review, projects are usually assigned within two to four weeks.

NEW PROGRAM INFORMATION

In November 1998, revised rules went into effect for UST Cleanups. These rules included housekeeping items as well as rules governing low impact sites (LIP) and for developing generic remedies. These rules are available at the DEQ's website (http://www.deq.state.or.us/wmc/tank/200rules.htm) or can be obtained from the Northwest Region office.

Guidance for LIP sites was prepared in December 1998. Copies of this guidance are available at the DEQ's website (http://www.deq.state.or.us/wmc/tank/lisguid.htm) or from the Northwest Region office.

During 1999, DEQ developed a generic remedy for risk based assessments. The generic remedy and guidance document was finalized on September 29, 1999. Copies of this guidance are available at the DEQ's website (http://www.deq.state.or.us/wmc/tank/rbdm_notice.htm) or from the Northwest Region office. This document replaces the DEQ's "Interim Guidance On Incorporating Risk Based Corrective Action For Petroleum Release Sites" (April 1996).

Another significant change is that the cleanup levels in Oregon Administrative Rules (OAR) 340-122-242 (4) have been replaced by the risk based screening levels in the risk based generic remedy.

The new rules and guidance apply to new releases and to cleanups that were not completed by the adoption date of the rules and guidance. If your cleanup was completed prior to these dates, or if you were operating under a DEQ *approved* corrective action plan, DEQ will apply the rules in place at the time of the cleanup when conducting our review.

If you have any questions or would like copies of the above referenced documents, please call Tina Leppaluoto at (503) 229-5472.

Sincerely,

Andree Pollock, Manager
UST Cleanup and Compliance Section

Enclosures: Cost Recovery Agreement

(avp:AVP)

F

Oregon

August 27, 1996

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

RON WITZEL
DIRECTOR OF CONSTRUCTION
Q LUBE INC
1385 WEST 2200 SOUTH
SALT LAKE CITY UT 84119

RE: Q Lube #1068
File No. 26-96-0364

Dear Mr. Witzel:

The Department has received your recent report concerning your petroleum cleanup project. However, a project manager is not currently assigned to this project for regulatory oversight purposes due to one of the following reasons:

1. The project does not have a high enough environmental priority ranking relative to other, higher priority projects at this time.

2. There is no signed cost recovery agreement with the Department to provide expedited regulatory oversight for this cleanup project.

In light of this, your report will be retained on file but will not be reviewed in detail until such time as it is possible to assign a project manager to this project. This action in no way exempts you from complying with the cleanup regulations in a timely manner.

When your cleanup project is assigned to a project manager, the information contained within the above referenced report and the file for your cleanup project, will be reviewed in order to determine the adequacy of the cleanup and for compliance with applicable regulations. Based on this review, additional cleanup work or documentation of cleanup and related activities may be required by the Department. Otherwise, the project may be determined complete resulting in the issuance of a formal "no further action" letter.

Please note that regardless of whether you have signed a cost recovery agreement or not, you will be responsible for payment of all regulatory oversight costs incurred by the Department.

If you should have any questions regarding this matter, please call the Department at (503) 229-5263 and request to speak to the Underground Storage Tank (UST) duty officer.

Sincerely,

James Maresh
Duty Officer
Underground Storage Tanks
Northwest Region

RPRTRCVD.FRM

John A. Kitzhaber
Governor

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

DE MINIMIS INC.
ENVIRONMENTAL MANAGEMENT
34 N.W. 1ST AVE., SUITE 101
PORTLAND, OREGON 97209
(503) 295-4074

August 23, 1996

Mr. Jim Maresh
Oregon Department of Environmental Quality
Northwest Region
2020 S.W. Fourth Avenue, Suite 400
Portland, Oregon 97201-4987

RE: Q Lube #1068, Portland, Oregon
File No.: 26-96-0364

Dear Mr. Maresh,

Enclosed is the Underground Storage Tank Decommissioning report prepared by De Minimis Inc. (DMI) Environmental Management for Q Lube #1068 located at 10227 N.E. Halsey Street in Portland, Oregon, 97220. Although the Oregon DEQ UST Facility records report the subject facility as Minit-Lube Inc. #1068 located at 10235 N.E. Halsey, these are the same facilities. Heavy oil contamination was detected during UST decommissioning activities (DEQ UST Cleanup #26-96-0364). The contaminated soil was characterized and excavated for recycling by thermal desorption. Soil sample analyses confirm that the site has been remediated to below the most stringent Oregon DEQ Numeric Soil Cleanup Standards of 100 ppm for diesel and other non-gasoline fraction hydrocarbons and other waste oil analytes. Since the site has been remediated to levels below the most stringent Oregon DEQ requirements, DMI recommends no further investigation or remediation for this UST release.

At the request of Q Lube, Inc., DMI requests that the Oregon DEQ review this report and issue a No Further Action Required letter for this facility.

If you have any questions or require any further information, please feel free to contact me or Rick Johnson at 295-4074. Thank you again for your cooperation on this project.

Sincerely,

Dale L. Haar
Project Manager

cc: Mr. Ron Witzel, Q Lube, Inc.

INITIAL (TWENTY DAY) REPORT FORM FOR UST CLEANUP PROJECTS

Note: This report is due twenty (20) days from the date of the release.

DEQ File No.: 26 - 96 - 0364

DEQ Facility Id. No.: 10837

Site Name: Q Lube #1068

Site Address: 10227 N.E. Halsey
Portland OR 97220

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 21 1996
NORTHWEST REGION

INITIAL CLEANUP INFORMATION

Type of contamination (check all that apply):

___ Gasoline ✓ Diesel ✓ Waste Oil ___ Heating Oil
___ Other (specify) _____

(Y) N Do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site?

Y (N) Did groundwater enter the excavation? If yes, please identify the depth to groundwater in feet below ground surface N/A.

Note: If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BETX and the appropriate TPH method.

Y (N) Was a sheen or odor observed on any water in the excavation?

Y (N) Did groundwater recharge within 24 hours after pumping the accumulated water from the excavation? Please describe the disposal option selected for the excavation water: N/A.

Y (N) Are/were there any vapors present in building or utility corridors? If yes, are you continuing to monitor and mitigate any additional fire and safety hazards posed by vapors and free product? Explain: N/A.

SOIL MANAGEMENT

(Y) N Will the level of contamination detected require removal of contaminated soil for treatment or disposal?

All contaminated soil temporarily stockpiled onsite prior to treatment or disposal must be contained within a bermed area, kept covered, and the entire area secured to prevent unauthorized access by the public. If you haven't done this, please explain why: N/A.

If contaminated soil is currently stockpiled onsite, please indicate when disposal will occur or when treatment will begin: Within 30 days.

Note: Contaminated soil cannot be stockpiled onsite for more than thirty (30) days without applying for a Special Letter of Authorization

Estimated volume of contaminated soil (tons or cubic yards): 70 yds^3.

Intended disposition of soils (please check one):

____ Onsite treatment, Solid Waste Letter Authorization Permit Application attached.

____ Offsite treatment, Solid Waste Letter Authorization Permit Application attached.

Note: Offsite treatment is banned within the Portland Metro boundaries (see enclosed fact sheet).

✓ Thermal treatment offsite at an authorized facility.
Facility name: OHI/TPS or PEMCO/MCSRF

____ Thermal treatment onsite with a mobil treatment unit, permit required from DEQ.
Company name: _____

____ Landfill disposal. Name of Landfill: _____

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports must be much more detailed and provide a complete picture of the cleanup project.

THIS REPORT WAS PREPARED BY:

Individual: Dale L. Haar, Project Manager Phone: (503) 295-4074
Company: De Minimis Inc.
Address: 34 N.W. First Avenue, Suite 101, Portland OR 97209

Please return this form to:

DEQ - NORTHWEST REGION
UST Section
2020 SW Fourth Avenue, Suite 400
Portland, Oregon 97201

If you have questions, call (503) 229-5489 and ask for the underground storage tank (UST) Duty Officer.

REMINDER: Submit UST Decommissioning/Change-in-Service Report forms and UST Decommissioning Checklists DIRECTLY to:

DEQ - UST Compliance Program Phone (503) 229-5759
811 SW 6th
Portland, OR 97204

Failure to do so can result in delays to your project and may result in continued billing for the tank permit fees.

Please be aware that a DEQ permit/authorization is required for the following activities:

1) Soil aeration, bioremediation (onsite or offsite) or onsite thermal treatment.

2) Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

Note: If there will be emissions from pollution control equipment (e.g. air strippers, vapor extraction systems, etc.), notify the DEQ by phone before installation. Have actual or estimated emissions calculated before calling.

KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

F

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

NORTHWEST REGION

June 19, 1996

RON WITZEL
Q LUBE
1385 WEST 2200 SOUTH
SALT LAKE CITY UT 84119

RE: Q-Lube #1068
File No.: 26-96-0364

Dear Mr Witzel:

On June 14, 1996, a release was reported from an underground storage tank (UST) system at your facility located at 10235 NE Halsey in Portland, Oregon. As the responsible party for the facility, you are required to clean up the release according to OAR 340-122-201 through 340-122-360.

An Initial Report Form for UST Cleanup Projects is enclosed, which needs to be completed and returned to this office within twenty (20) days from the date the release was reported. An outline of additional reporting requirements and due dates is also enclosed. A copy of the UST Cleanup regulations will be provided upon request. As the responsible party, you should be aware of what the requirements are, even if you have hired a qualified contractor or consultant to assist you.

Please reference the DEQ File Number listed above in all future correspondence and reports.

By law, DEQ is required to recover all cleanup project oversight costs. DEQ oversight begins with the initial site characterization and continues through site closure. Oversight includes activities such as reviewing reports, preparing correspondence, answering technical assistance questions, site inspections, and enforcement actions. You will be receiving an invoice each month for all oversight activities performed to-date.

DEQ's highest priority for oversight are those sites which pose the greatest hazard to human health, safety and the environment. As a result, many lower environmental priority sites will not be reviewed in detail or receive a final "No further action" or "closure" letter from DEQ until the higher priority sites are addressed. However, all projects - simple or complex - require at least some oversight. At a minimum, sufficient review of reports and data submitted is conducted to determine the environmental priority of the cleanup project.

John A. Kitzhaber
Governor

2020 SW Fourth Avenue
Suite 400
Portland, OR 97201-4987
(503) 229-5263 Voice
TTY (503) 229-5471

For those responsible parties who desire DEQ oversight, regardless of environmental priority, we have developed a Responsible Party Priority Site Program. To receive oversight and more effectively schedule your project, you will be asked to sign an agreement requesting priority review and confirming your agreement to pay DEQ oversight costs in a timely manner.

Not entering into the Agreement does not release you from responsibility for investigation and/or cleanup of the contamination; nor does it mean that you are exempt from paying for DEQ oversight costs. Please be aware that there may be a waiting list for assignment to the next available project manager, and that these projects are assigned on a first come, first served basis. Please read the attached information on the cost recovery and invoice process. We have also included information about the Responsible Party Priority Site Program and an agreement, if you are interested in expediting review of your project. You may contact the Waste Management and Cleanup Program at (503) 229-6635 if you have questions about cost recovery.

Thank you for your cooperation and continued efforts to comply with the regulations. **If you have any questions about the regulations and/or your cleanup please call (503) 229-5489 and ask to speak to the Underground Storage Tank Duty Officer.**

Sincerely,

Mitch Scheel
Duty Officer
Underground Storage Tanks
Northwest Region

Enclosures

(WITZEL:GRD)

UST CLEANUP TELEPHONE USE REPORT

CALL FROM/TO: Dale - DATE: 18-JUN-96

WITH: DeMinnimis TIME: 0810

TELEPHONE NO: ( )295-4074

REGARDING:

FILE NO: 26-96-364

SUMMARY OF CALL

37 ppm - 53 ppm @ TPH-418.1M. Backfill approval given with understanding that rules regarding waste oil releases would be followed.

J Maneil

Staff Signature

PTF 26-96-364 (P) NWR

Oregon Department of Environmental Quality
UNDERGROUND STORAGE TANK DECOMMISSIONING/CHANGE-IN-SERVICE 30 DAY NOTICE

FACILITY (Location of Tanks)

Name: Q-Lube #1068

Address: 1027-NE Halsey

Portland, Oregon 97220

Phone: 503-254-2017

DEQ Facility I.D. Number: 10837

Work To Be Performed By: Varchan Env. License # _____
(Owner or Licensed Service Provider)

Phone: 626-1122 Mobile Phone: _____

TANK OWNER

Name: Q-Lube INC

Address: 1385-West 2200 So.

Salt Lake City, Utah 84119

Phone: 801-975-4728

FORM MUST BE SUBMITTED BY UST OWNER OR OPERATOR 30 DAYS BEFORE START OF WORK

YOU MUST CONTACT YOUR LOCAL DEQ REGIONAL OFFICE [illegible] TARTING ANY DECOMMISSIONING W

Post-it® Fax Note 7671 | Date 6/10 | # of pages ▶ 1
To Charles Grant | From Mitch Scheel
Co./Dept. Varchan Env. | Co. DEQ-NWR
Phone # | Phone # 229-5618
Fax # 644-5931 | Fax # 229 6945

Will tank removal or poten[illegible] ___ No X

Date decommissioning is sc

Tank #	DEQ UST Permit #	Tank Size in (Gallons)	Change? Present	Change? New	Tank Removal	Closure∞ Inplace	Other∞ Use	Tank to be Replaced? Yes*	Tank to be Replaced? No
1	BBFKK	~~6000~~ 3000 ~~3 comp~~	Waste oil		X				X
2	BBFKA	2000	New oil		✓				✓
3	BBFKB	1000	Used oil		✓				✓

* If decommissioned tank(s) are to be replaced by new underground storage tanks you must submit a new permit application containing information on the new tanks 30 days before placing them in service.

∞ Submit a soil sampling plan to the DEQ regional office and receive plan approval prior to starting work if 1) tank is to be decommissioned in-place, 2) tank contents are changed to a non-regulated substance, 3) tank contains a regulated substance other than petroleum, or 4) tank changed to non-regulated use.

Signature: [signature] Date: 6-10-96

Department of Environmental Quality RECEIVED JUN 10 1996

PIF (P) NWR

Oregon Department of Environmental Quality
UNDERGROUND STORAGE TANK DECOMMISSIONING/CHANGE-IN-SERVICE 30 DAY NOTICE

FACILITY (Location of Tanks)
Name: Q-Lube #1068
Address: 10227-NE Halsey
Portland, Oregon 97220
Phone: 503-254-2017

TANK OWNER
Name: Q-Lube INC
Address: 1385-West 2200 So.
Salt Lake City, Utah 84119
Phone: 801-975-4728

DEQ Facility I.D. Number: 10837
Work To Be Performed By: Varchen Env. License # _____
(Owner or Licensed Service Provider)
Phone: 626-1122 Mobile Phone: _____

FORM MUST BE SUBMITTED BY UST OWNER OR OPERATOR 30 DAYS BEFORE START OF WORK

YOU MUST CONTACT YOUR LOCAL DEQ REGIONAL OFFICE 3-DAYS BEFORE STARTING ANY DECOMMISSIONING WORK. (Phone numbers are listed on reverse)

Will tank removal or potential cleanup affect adjacent property or Right-of-Way property? Yes ____ No X

Date decommissioning is scheduled to begin: 10-13-95

Tank #	DEQ UST Permit #	Tank Size in (Gallons)	Product: Gasoline, Diesel, Used Oil, Other?		Closure or Service Change?			Tank to be Replaced?	
			Present	New	Tank Removal	Closure∞ Inplace	Other∞ Use	Yes*	No
1	BBFKK	6000 3 comp	new/used oil		X				X

* If decommissioned tank(s) are to be replaced by new underground storage tanks you must submit a new permit application containing information on the new tanks 30 days before placing them in service.

∞ Submit a soil sampling plan to the DEQ regional office and receive plan approval prior to starting work if 1) tank is to be decommissioned in-place, 2) tank contents are changed to a non-regulated substance, 3) tank contains a regulated substance other than petroleum, or 4) tank changed to non-regulated use.

Signature: _____ Date: 9-12-95
(Owner or Operator)

RECEIVED Department of Environmental Quality SEP 18 1995 UST Compliance Sec

Oregon

DEPARTMENT OF ENVIRONMENTAL QUALITY

September 21, 1995

Facility ID No.: 10837

Dear Tank Owner/Permittee:

We received a decommissioning notice on September 18, 1995 for 1 underground storage tank(s) located at:

Q-lube #1068
10227 NE Halsey
Portland, OR 97220

There are apparently some discrepancies between our record and the information on your decommissioning form. The following concerns **must be resolved BEFORE** decommissioning can proceed:

_____ Inadequate information to identify tanks.

_____ One or more of the tanks are not permitted.

_____ Permit fees for 1988 1989 1990 1991 1992 1993 1994 and 1995 are due.

__X__ The contractor you have identified is not licensed or you did not identify a contractor. Note that a DEQ licensed contractor is required when work is done by anyone other than the tank owner.

Please contact Steve Paiko at (503) 229-5733 to provide the additional tank identification information, to obtain details on which tanks need to be permitted and permit application forms, to arrange payment of fees ($25 per tank per year, for the years 1988 through 1993, $35 per tank per year for 1994 & 1995), or to receive a list of licensed contractors.

Failure to resolve any of the discrepancies before proceeding with decommissioning is a violation of the Department's regulations and may be subject to enforcement. Your cooperation in resolving any potential problems in a timely manner is appreciated.

An assessment must be conducted at all tank sites and contamination must be reported within 24 hours of discovery. OAR 340-122-301 through 340-122-360 contains the sampling requirements necessary when decommissioning underground storage tanks. As soon as contamination is identified in any manner, including observations of visible staining or odors, it must be reported. If obvious signs of contamination are present in the excavation, **DO NOT** wait until you receive the sample results to report the contamination.

If you need to report contamination or have any general questions regarding site cleanup or UST compliance issues, please contact the regional office at the number listed below.

811 SW Sixth Avenue
Portland, OR 97204-1390
(503) 229-5696
TDD (503) 229-6993

*** **REMINDER:** The UST Decommissioning/Change-In-Service Report form and the UST Decommissioning Checklist form must be submitted within 30 days after completion of work.

Sincerely,

Steven J. Paiko
Office Specialist, UST Compliance Section
Waste Management & Cleanup Division

cc: Northwest Regional Office - 229-5263

✓ E

UPDATES:

◂ MORE ON BACK ▸

* PETROLEUM RELEASE FORM *

Please Check All That Apply

INCIDENT INFORMATION

LOG NBR: 26-96-0364 RECEIVED BY: MRS

UST FAC NBR: 10837 DATE REPORTED: 6-14-96

SITE NAME: Q Lube # 1068

SITE ADDRESS: 10235 NE Halsey

SITE CITY: PDX ZIP: 97220

SITE COUNTY: Mult. PHONE: 254-2017

PROJECT MANAGER:

☒ REGULATED UST
☐ NON-REGULATED UST
☐ HEATING OIL TANK

FUNDING

☒ LUST ☐ HSRAF
☐ OHC ☐ FINANCIAL ASST

☐ INVOICE START ☐ INVOICE STOP
LTR. AGR. ☐ NFA SENT
DATE:

MAIL CONTACTS

REPORTED BY

NAME: Dale Harr
COMPANY: De Minimis, Inc.
ADDRESS:
CITY: ZIP:
STATE: PHONE: 295-4074

RESPONSIBLE PARTY

NAME: Ron Witzel
COMPANY: Q-Lube
ADDRESS: 1385 West 2200 South
CITY: Salt Lake City ZIP: 84119
STATE: UT PHONE: (801) 975-4718

INVOICE CONTACT

NAME: RP
COMPANY:
ADDRESS:
CITY: ZIP:
STATE: PHONE:

OTHER CONTACT(S)

NAME:
COMPANY:
ADDRESS:
CITY: ZIP:
STATE: PHONE:

SITE ASSESSMENT

DATE DISCOVERED: 6-13-96

☐ EMERGENCY RESP.
☐ ENFORCEMENT

☒ FURTHER CLEANUP REQ.
☐ NO FURTHER CLEANUP REQ.
☐ OFFSITE MIGRATION

L.I.P.S. SCORE (Region)

CONFIRMATION:

☐ SI) STAFF
☐ LD) LAB:DEQ
☐ LR) LAB:RP
☐ LO) LAB:OTHER
☐ RR) RP REPORT
☒ CN) CONTRACTOR
☐ OT) OTHER

DISCOVERY:

☐ RM) ROUTINE MONITORING
☒ DC) DECOMMISSIONING
☐ CP) COMPLAINT
☐ IC) INVENTORY CONTROL
☐ SA) SITE ASSESSMENT
☐ TT) TANK TEST
☐ OT) OTHER

CAUSE:

☐ TL) TANK LEAK
☐ PL) PIPE LEAK
☒ OF) OVERFILL
☐ SS) SURFACE SPILL
☐ PV) PUMP/VALVE LEAK
☐ OT) OTHER
☐ UN) UNKNOWN

* 10-24-00 * closed

CONTAMINANTS - IMPACTS

CONTAMINANTS:

- ☐ UG) UNLEADED GASOLINE
- ☐ LG) LEADED GASOLINE
- ☐ MG) MISC. GASOLINE
- ☐ DS) DIESEL
- ☐ FO) FUEL OIL
- ☒ WO) WASTE OIL
- ☐ LB) LUBRICANT
- ☐ SV) SOLVENT
- ☐ BF) BUNKER FUEL
- ☐ OP) OTHER PET. DIST.
- ☐ CH) CHEMICAL
- ☐ HO) HEATING OIL
- ☐ UN) UNKNOWN
- ☐ OT) OTHER _____

MEDIA/IMPACT:

- ☒ SL) SOIL
- ☐ GW) GROUNDWATER
- ☐ SW) SURFACE WATER
- ☐ DW) DRINKING WATER
- ☐ FV) FACILITY (VAPOR)
- ☐ FP) FACILITY (FREE PROD)

SITE - SOIL MANAGEMENT

RELEASE STOPPED: 6-13-96

CLEANUP STARTED: 6-13-96

REMEDIATION COMPLETED: 8-8-00

NO FURTHER ACTION: 10-24-00

SWLA PERMIT NUMBER: _____

DATE ISSUED: _____

AMOUNT OF SOIL (yds3) TREATED ON SITE: _____

AMOUNT OF SOIL (yds3) TREATED OFF SITE: _____

TREATMENT METHOD:

- ☐ AREATION
- ☐ THERMAL
- ☐ BIOLOGICAL
- ☐ OTHER _____

AMOUNT OF SOIL (yds3) DISPOSED OF: _____ ☐ TREATED ☐ UNTREATED

FINAL DISPOSITION OF SOIL:

- ☐ ONSITE
- ☐ LANDFILL
- ☐ ROAD BASE
- ☐ OTHER _____

NOTES/COMMENTS: _____

This Space Provided For Regional Use

(LUST106/26-AUG-94)

August 4, 2000

RON WITZEL
Q LUBE INC
1385 WEST 2200 SOUTH
SALT LAKE CITY UTAH 84119

Re: Q Lube # 1068
File No. 26-96-0364
Facility ID: 10837

Dear Mr. Witzel:

The Department of Environmental Quality (Department) has completed its review of the information submitted to date concerning the underground storage tank (UST) decommissioning and cleanup conducted at 10235 NE Halsey Street in Portland, Oregon, The Department has determined that the cleanup appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360 and that no further action is required at this time.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them, including:

1. One (1) 6000-gallon UST was decommissioned by removal in 1996. The UST was manufactured and permitted as three separate compartments, two new oil and one waste oil. No holes were observed in the UST during decommissioning. The UST was cleaned and transported to Schnitzer Steel for recycling.

2. Product and waste oil was pumped out of the UST compartments and transferred to above ground tanks for storage at this facility. The UST was triple-rinsed and 200 gallons of rinsate transported to Sunwest Energy Corp., for recycling.

3. The product piping was drained back into and detached from the UST. The vent lines were cut flush at the pavement surface, all product piping and vent lines were then sealed.

4. During excavation to the top of the UST, contamination was observed around the waste oil compartment fill pipe and in the UST backfill. One soil sample (S-1) was collected from obviously contaminated soil in the waste oil fill pipe area. Initial analytical results by test method TPH HCID indicated a detection of diesel and heavy oil. Further testing of sample S-1 by method 418.1m for soils indicated petroleum hydrocarbons occurring at a concentration of 8800 mg/kg.

5. Soil sample S-1 was the most contaminated sample collected and was subjected to additional testing and analysis. The results of analysis for metals, cadmium, chromium, and lead were not detected. The results of analysis for volatile chlorinated or aromatic solvents were not detected except for o-xylene at 0.012 mg/kg.

6. Up to 101.53 tons of contaminated soil was transported to TPST Soil Recyclers of Oregon for thermal desorption.

7. Four final confirmatory soil samples collected from the former UST cavity following removal of the UST and contaminated soil indicated that petroleum hydrocarbons were not detected above 53 mg/kg by method 418.1m, which is less than the most stringent cleanup level of 100 mg/kg for diesel and heavy oil.

8. Groundwater was not observed during the decommissioning or excavation of contaminated soils.

The Department's determination will not be applicable if new or undisclosed facts show that the cleanup does not comply with the referenced rules. The Department's determination also does not apply to any conditions at the site other than the release of diesel specifically addressed in the file.

Please note that pursuant to OAR 340-122-360(2), a copy of your report must be retained until ten (10) years after the first transfer of the property. We recommend that a copy of this information be kept with the permanent property records.

Your efforts to comply with the regulations to ensure that your property has been adequately cleaned up have been appreciated. If you have any questions, please feel free to contact me at (503) 229-5496.

Sincerely,

Gregory Toran
UST Compliance Officer

cc: Gregory Toran-ODEQ/NWR

FILE NAME: Q Lube #1068 LOG NO. 26-96-0364

NWR'S NFA TRACKING CHECKLIST

ROUTE TO	ACTIVITY	RESPONSIBLE PERSON	DATE COMPLETED
	Add f# 10837 to lust		
	Sequent checked by project manager to make sure fees paid and tanks closed and that UST compliance issues have been resolved.	set	7/31/00
	OTIS updated with soil disposal, public notice, and other applicable information by project manager.	set	7/31/00
	Draft NFA prepared by Project Manager (PM) and submitted to NRS-4 Hydro or Manager for review	set	7/31/00
AVP	Draft NFA approved by NRS-4 Hydro (or Manager, if necessary) and submitted for data entry	AVP	8/3/00
	SEQUENT updated with final invoice request date and new green sheet information.	TMD	8.8.00
	OPTIONAL STEP: Expedited payment request by responsible party (RP) is handled by ======>>		
	OPTIONAL STEP: Estimated Expedited Payment Amount given to RP by ======>>		
	To Administrative staff for cost recovery entries	TMD	8.8.00
	Final invoice paid notice received from Business Office and PM informed by Manager	AVP	10/20
	Final NFA drafted and signed by PM (and Manager, if necessary), and sent for data entry	Set	10/21/00
	SEQUENT updated with filed closed information.	TMB	10-24-00
	Proofreading letter and file closure activities	TMD	8.8.00
EE	Copies made and mailed	EE	10-24-00

NFA PROCESS COMPLETE

(11/26/1999)

Underground Storage Tank Decommissioning

Q Lube #1068
(a.k.a. Minit-Lube Inc. #1068)
10227 (and 10235) N.E. Halsey
Portland, Oregon 97220

August 19, 1996

Oregon DEQ UST Cleanup File #26-96-0364
Oregon DEQ UST Facility #10837

Project # 00494-0696
Q Lube P.O. No. OR.ENV.121295-1

Prepared For:

Mr. Ron Witzel
Director of Construction
Q Lube, Inc.
1385 West 2200 South
Salt Lake City, Utah 84119

De Minimis Inc. Environmental Management
34 N.W. First Avenue • Suite 101 • Portland, Oregon • (503) 295-4074

TABLE OF CONTENTS

Topic	Page
1.0 Introduction	1
1.1 Site Location and Description	1
2.0 Underground Storage Tank Decommissioning	3
2.1 Site Preparations, Permits, and Licenses	3
2.2 UST Decommissioning Activities and Observations	4
2.3 Soil Sampling and Observations	5
2.4 Oregon DEQ UST Release Requirements	6
2.5 Additional Soil Sampling	6
2.6 Excavation Backfilling	7
2.7 Contaminated Soil Removal and Recycling	7
3.0 Laboratory Analytical Results	8
3.1 Total Petroleum Hydrocarbons	8
3.2 Waste Oil Analyses	9
4.0 Oregon DEQ Soil Numeric Cleanup Standards	11
4.1 Total Petroleum Hydrocarbons	11
4.2 Waste Oil Analytes	11
5.0 Summary and Conclusions	13
6.0 Recommendations	16
7.0 Limitations	17
8.0 References	18
9.0 Glossary of Abbreviations	19

Tables

Table 1 - Oregon DEQ UST Registration	3
Table 2 - Soil Sample Analytical Results	8
Table 3 - Waste Oil Analytical Results, Soil Sample S-1	10

Appendices

Appendix A - Maps
- Figure 1 - Site Location Map
- Figure 2 - Site Map

Appendix B - Site Photographs

Appendix C - Permits, Receipts and Checklists

Appendix D - Laboratory Analytical Results, Chain Of Custody, and Quality Assurance/Quality Control Data Review

Appendix E - Soil Matrix Score Sheet and Checklist

1.0 Introduction

At the request of Q Lube, Inc. (the Client), De Minimis Inc. (DMI) Environmental Management was contracted to provide site assessment services for the decommissioning by removal of one underground storage tank (UST) located at the Q Lube facility #1068. The subject property is located at 10227 N.E. Halsey Street in Portland, Oregon, 97220 (See Appendix A, Figure 1). The address registered with the Oregon Department of Environmental Quality (DEQ) is 10235 N.E. Halsey Street; however, these two addresses represent the same site.

One 6,000-gallon UST was decommissioned by removal on June 13, 1996. The UST had three compartments, two of which contained virgin motor oil and one contained waste oil. The activities, laboratory analytical results, and interpretations of this project are described in this report.

1.1 Site Location and Description

The geographic location of the subject property is the southwest quarter of the southwest quarter of Section 27, Township 1 North, Range 2 East of the Willamette Meridian in north-central Multnomah County. The site is located approximately one-quarter mile to the east of the head of Sullivan Gulch and Interstate I-84 and approximately two and one-quarter miles to the south of the Columbia Slough, which flows to the west. The subject property is located at approximately 285 feet above Mean Sea Level and slopes slightly to the northwest.

Q Lube operates an automotive motor lubricant changing facility. The site consists of a one-story building with two garage bays, a paved parking lot, and landscaped areas (See Appendix A, Figure 2 and Appendix B, Photograph 1).

The subject property is located in a commercial corridor paralleling N.E. Halsey Street and N.E. Weidler Street. The subject property is bordered on the north by N.E. Weidler Street. A Circuit City retail electronics store is located to the north of Weidler Street. The site is bordered on the east by a McDonald's restaurant currently under construction.

The subject site is bordered on the south by N.E. Halsey Street. Pro-Am Sports Gateway, a retail sporting goods store, and Harris Uniforms, a uniform supply store, are located to the south of Halsey Street. The subject property is bordered on the west by an undeveloped lot covered with gravel. This lot appeared to be a former service station location due to 55-gallon drums stored on-site and temporary fencing. The Oregon DEQ UST Facilities list reported that Chevron U.S.A., Inc. - 95010 was located at 10215 N.E. Halsey Street (DEQ Facility #1089) and this address appears to be an adjacent address to the subject property.

2.0 Underground Storage Tank Decommissioning

2.1 Site Preparations, Permits, and Licenses

The subject facility is registered with the Oregon DEQ as Minit-Lube #1068, DEQ UST Facility #10837. Three USTs are registered with the Oregon DEQ (See Table 1). As noted earlier, there was only one 6,000-gallon UST with three compartments. Mr. Steve Paiko, stated that a three compartment UST could be registered as three separate USTs.

Table 1

Oregon DEQ UST Registration

UST Number	Size and Contents	Oregon DEQ Permit Number
1	3,000-gallon (virgin motor oil, 10W-40)	BBFKK
2	2,000-gallon (virgin motor oil, 10W-30)	BBFKA
3	1,000-gallon waste oil	BBFKB

The Client had previously removed the virgin motor oil and the waste oil from the USTs and transferred the product and the waste oil into aboveground storage tanks (ASTs) located within the on-site structure.

The Notice of Underground Storage Tank Permanent Decommissioning-Service Change was submitted to the Oregon DEQ on September 18, 1995, by Silver Sun Construction Company, Inc. (a former subcontractor). The Three Day Advance Notice Before Work Begins (Log #26-3D-96-65) was authorized by Mr. Mitch Scheel, UST Duty Officer, DEQ Northwest Region, on June 10, 1996. Permit #T960602 was obtained from the City of Portland Fire Prevention Division to decommission the UST by removal.

Varchan Environmental Construction (VEC), Beaverton, Oregon, was contracted by the Client to provide UST excavation and decommissioning services. VEC was the DEQ-licensed UST Service Provider (license #14317) and Mr. Charles R. Grant was VEC's DEQ-licensed UST Decommissioning Supervisor (license #12640).

De Minimis Inc. (DMI) was contracted by the Client to provide site assessment services for the UST decommissionings (DEQ-licensed UST Service Provider, license #13383, and Soil Matrix Cleanup Provider license, #11123). Mr. Dale L. Haar, DMI Project Manager, was the on-site DEQ-licensed UST Soil Matrix Cleanup Supervisor (license #12426).

A Site Health and Safety meeting was conducted prior to the on-site activities to review site-specific health and safety hazards associated with this project. The Site Health and Safety plan was signed by all field personnel. A utility locate was performed by VEC prior to initiating site activities. No utilities were marked in the proposed areas of excavation.

2.2 UST Decommissioning Activities and Observations

The compartmentalized UST was decommissioned by removal on June 13, 1996 (See Appendix B for Site Photographs and Appendix C for the Oregon DEQ UST Decommissioning Checklist). The weather was cloudy and temperatures were initially in the low-50's° F.

The concrete covering the UST had previously been saw-cut. A trackhoe excavated to the top of the UST. Oily sand backfill, rags, and sorbant pads were observed at 8 inches below ground surface (bgs) adjacent to the fill pipes. The contaminated sand backfill was stockpiled on-site on and beneath polyvinyl sheeting pending laboratory analyses.

The UST was purged and inerted with dry ice. A Gastech Tank-Techtor combustible gas detector and oxygen meter was utilized to monitor the oxygen concentration and the lower explosive limit (LEL) present in the UST until safe levels were maintained. The product dispensing lines were drained into each compartment of the UST. The product dispensing and vent lines were detached from the UST. The vent lines, located adjacent to the north wall of the on-site structure, were saw-cut flush with the paved surface. The product dispensing and vent lines were sealed.

The UST was coated with fiberglass and was secured with two straps to a concrete

deadman located at the base of the UST excavation. Each compartment of the UST was saw-cut, thus rendering the UST unusable (See Appendix B, Photographs 3, 4, and 5). The UST was double-walled. The UST was removed from the excavation and was visually inspected for evidence of corrosion and leakage. No holes were observed in the UST. Oil staining was observed on the exterior of the UST on the waste oil end of the UST. The concrete deadman extended approximately three feet beyond each end of the UST.

Each compartment of the UST was triple-rinsed by Sunwest Energy Corp., located in Portland, Oregon. Approximately 200 gallons of UST rinsate were transported by Sunwest Energy Corp. to their Macrum Plant, located in Portland, Oregon, for recycling (See Appendix C for the receipt).

A warning statement was spray painted on the exterior of the UST (See Appendix B, Photograph 6). The UST was loaded and secured on a truck for transport to Schnitzer Steel Products Co., located in Portland, Oregon, for recycling (See Appendix C for the receipt). Temporary fencing was installed around the UST excavation to secure the site pending backfilling.

2.3 Soil Sampling and Observations

Three soil samples (S-1, S-2, and S-3) were initially obtained from the UST excavation (See Appendix A, Figure 2 for Site Map). Soil sample S-1 was obtained directly from obviously contaminated soil located adjacent to the waste oil fill pipe. The other two discrete soil samples obtained from the excavation were sampled from the bucket of the trackhoe by DMI personnel wearing surgical-type, latex gloves. Three inches of soil were rapidly removed and the soil sample was rapidly transferred into the sample bottles with minimal headspace, thus minimizing the loss of volatile organic compounds. The sample containers were sealed, labeled, and stored on ice in a cooler until shipped to National Environmental Testing (NET), Inc., located in Portland, Oregon, via chain of custody, for analyses. Sample containers supplied by NET were precleaned, 8-ounce, glass jars fitted with Teflon™-lined lids.

Soil sample S-1 was collected from contaminated soil at 2 feet bgs adjacent to the waste

oil fill pipe located on the west end of the UST. Sample S-1 consisted of moist, brownish-gray, coarse-grain fill sand. The sample appeared visually contaminated with oil and a slight oil odor was detected.

As per the instructions of Mr. Mitch Scheel, Oregon DEQ UST Duty Officer, Northwest Region, soil samples S-2 and S-3 were collected from the base of the excavation beneath the west and east ends of the concrete UST deadman, respectively, at 11 feet bgs. Groundwater was not encountered during the excavation activities. Sample S-2 consisted of moist, reddish-brown silt with coarse grain fill sand. No visual or olfactory evidence of contamination was observed in soil sample S-2. Sample S-3 consisted of moist brownish-gray, coarse grain sand. No visual evidence of contamination was observed in soil sample S-3; however, a very slight petroleum hydrocarbon odor was detected.

2.4 Oregon DEQ UST Release Requirements

The suspected release from the UST facility was reported to Mr. Mitch Scheel, Oregon DEQ UST Duty Officer, on June 14, 1996. The site was assigned Oregon DEQ UST Cleanup File #26-96-0364.

2.5 Additional Soil Sampling

Since diesel and heavy oil contamination were detected in soil sample S-1 (See Section 3.0 later in this report), Mr. Steve Hooper, Oregon DEQ UST Duty Officer, required that two additional soil samples be collected from beneath the sides of the concrete deadman. On June 17, 1996, soil samples S-4 and S-5 were obtained with a trackhoe at 11 feet bgs from beneath the south and north sides of the concrete deadman, respectively. Groundwater was not encountered during the excavation activities.

Sample S-4 consisted of moist, reddish-brown silt with coarse grain fill sand and pebbles to one inch. No visual or olfactory evidence of contamination was observed in soil sample S-4. Sample S-5 consisted of moist brownish-gray, coarse grain fill sand and cobbles to 10 inches. No visual or olfactory evidence of contamination was observed in soil sample S-5.

2.6 Excavation Backfilling

On June 18, 1996, DMI personnel requested backfill authorization from Mr. Jim Maresh, Oregon DEQ UST Duty Officer. The request was made after the additional soil samples had been collected from beneath the concrete deadman and the Client had agreed to perform the additional waste oil analyses required by the Oregon DEQ. Mr. Maresh authorized backfilling of the UST excavation on June 18, 1996. The UST excavation was backfilled by VEC on June 18, 1996.

2.7 Contaminated Soil Removal and Recycling

After the required laboratory analyses were performed, TPST Soil Recyclers of Oregon accepted the petroleum contaminated soil for recycling at their Portland, Oregon facility. On July 1, 1996, 101.53 tons of stockpiled petroleum contaminated soil were transported to the TPST facility for remediation and recycling by thermal desorption to approved regulatory standards (See Appendix C for the TPST Manifest).

3.0 Laboratory Analytical Results

Complete laboratory analytical results, chain of custody documentation, and Quality Assurance/Quality Control Data Review are included in Appendix D. Five soil samples were submitted via chain of custody for analyses to National Environmental Testing (NET), Inc., located in Portland, Oregon.

3.1 Total Petroleum Hydrocarbons

Soil samples S-1, S-2, and S-3 were initially analyzed for Total Petroleum Hydrocarbons-Hydrocarbon Identification per Oregon DEQ Method TPH-HCID. Diesel and heavy oil carbon range contamination were detected in sample S-1. No petroleum hydrocarbons were detected in soil samples S-2 and S-3. As per Oregon DEQ requirements, all of the soil samples were analyzed for total petroleum hydrocarbons per Oregon DEQ Method TPH-418.1 Modified (See Table 2 for soil sample analytical results).

TABLE 2

Soil Sample Analytical Results

Total Petroleum Hydrocarbons-Hydrocarbon Identification (per OR DEQ Method TPH-HCID) and Appropriate Quantitation (per OR DEQ Method TPH-418.1 Modified)

June 13 and 17, 1996

Soil Sample Number	TPH-HCID (Carbon Range Detected)	TPH-418.1 Mod.
S-1	Diesel and Heavy Oil	8,800
S-2	ND	37
S-3	ND	24
S-4	--	50
S-5	--	53

Results reported in mg/Kg (milligrams per kilogram) or ppm (parts per million).
ND = Not Detected at or above test method detection limits.
Test Method Detection Limits:
TPH-HCID: Gasoline - 20 ppm
Diesel - 50 ppm
Heavy Oil - 100 ppm
TPH-418.1 Mod.: 5 ppm

3.2 Waste Oil Analyses

Since heavy oil contamination was detected in soil sample S-1 (8,800 ppm TPH-418.1 Modified) and one of the compartments of the UST contained waste oil, the appropriate waste oil analyses were performed, as per Oregon Administrative Rules (OAR) 340-122-340 (6). Waste oil analyses included Toxicity Characteristic Leachate Procedure (TCLP) for cadmium, chromium, and lead per EPA Methods 1311/6010, and volatile chlorinated and aromatic solvents per EPA Method 8240. Analysis for polychlorinated biphenyls (PCBs) was not required since the waste oil UST was used exclusively for the storage of automotive waste oils. As per the instructions of Mr. Maresh on June 18, 1996, the waste oil analyses were performed on soil sample S-1, the soil sample with the highest concentration of total petroleum hydrocarbons per TPH-418.1 Modified. Mr. Maresh stated that if any of the waste oil analytes were detected above the Oregon DEQ soil cleanup standards, then waste oil analyses would be required on the sample obtained from the base of the UST excavation with the highest TPH-418.1 Modified concentration.

None of the three TCLP metals were detected at or above the test method limits. The only volatile chlorinated or aromatic solvents detected was o-xylene at 0.012 parts per million (ppm). No other volatile chlorinated or aromatic solvents were detected at or above the test method detection limits (See Table 3 for soil sample S-1 waste oil analytical results).

Since none of the waste oil analytes were detected above the Oregon DEQ soil cleanup standards, waste oil analyses were not performed on the most contaminated soil sample collected from the base of the UST excavation, as per Mr. Maresh.

TABLE 3

Waste Oil Analytical Results
Soil Sample S-1

TCLP Metals (per EPA Methods 1311/6010)
and
Volatile Aromatic Hydrocarbons
(per EPA Method 8240)

June 13, 1996

Analysis	Result	Oregon DEQ Soil Cleanup Level
TCLP Metals		
Cadmium	ND	0.5
Chromium	ND	10
Lead	ND	2
Volatile Aromatic Solvent		
o-xylene	0.012	800 [total xylenes]

See Appendix D for the complete list of analytical results for the volatile chlorinated and aromatic solvents.
Results reported in mg/Kg (milligrams per kilogram) and mg/L (milligrams per liter) or ppm (parts per million).
ND = Not Detected at or above test method detection limits.
Test Method Detection Limits:

TCLP Metals - 0.05 ppm
EPA 8240 - Detection limits vary. See Appendix D for the complete list of test method detection limits.

4.0 Oregon DEQ Soil Numeric Cleanup Standards

The Oregon DEQ provides Numeric Soil Cleanup Standards for releases from a UST system, as per OAR 340-122-315 to 335.

4.1 Total Petroleum Hydrocarbons

Diesel and heavy oil petroleum hydrocarbons were detected in soil sample S-1 at 8,800 ppm TPH-418.1 Modified. Soil sample S-1 was collected from the sand backfill located adjacent to the waste oil fill pipe. This concentration exceeds the least stringent Oregon DEQ Numeric Soil Cleanup Standard of 1,000 ppm for diesel and other non-gasoline fraction hydrocarbons.

The contaminated backfill was removed from the excavation and four confirmatory soil samples were collected from the beneath the four sides of the concrete deadman located at the base of the excavation. Laboratory analyses reported concentrations of diesel and other non-gasoline fraction hydrocarbons ranging from 24 ppm to 53 ppm per TPH-418.1 Modified. The confirmatory soil sample analytical results were substantially below the most stringent Oregon DEQ Numeric Soil Cleanup Standard of 100 ppm for diesel and other non-gasoline fraction hydrocarbons.

A site-specific Soil Matrix Score corresponding to a Level 2 Numeric Soil Cleanup Standard was calculated for this soil remediation project (See Appendix E for the Soil Matrix Score Sheet and Checklist). The Level 2 Numeric Soil Cleanup Standards are 80 ppm for gasoline and 500 ppm for diesel and other non-gasoline fraction hydrocarbons. All confirmatory soil sample analyses for total petroleum hydrocarbons were substantially below the Level 1 soil cleanup standard, the most stringent Oregon DEQ Numeric Soil Cleanup Standard, of 40 ppm for gasoline and 100 ppm for diesel and other non-gasoline fraction hydrocarbons.

4.2 Waste Oil Analytes

The only volatile chlorinated or aromatic solvent detected per EPA Method 8240 was

0.012 ppm o-xylene. The soil cleanup level for total xylenes is 800 ppm, as per the Oregon DEQ Soil Cleanup Table. The concentration detected in soil sample S-1, the most contaminated sample analyzed from the excavation, was substantially below the Oregon DEQ soil cleanup level for total xylenes. None of the other volatile chlorinated or aromatic solvents were detected at or above the test method detection limits.

None of the three TCLP metals were detected at or above the test method limits of 0.05 ppm in sample S-1 (See Table 3 for the Oregon DEQ Soil Cleanup Levels for each metal).

5.0 Summary and Conclusions

Based on field observations made by DMI and laboratory analytical data, the following summary and conclusions are presented.

UST Decommissioning Activities and Laboratory Analytical Results

• One 6,000-gallon UST was decommissioned by removal on June 13, 1996. The UST had three compartments. The 3,000-gallon and the 2,000-gallon compartments contained virgin motor oil and the 1,000-gallon compartment contained waste oil. A concrete deadman was encountered at the base of the excavation and was left in place.

• Groundwater was not encountered in the excavation to a depth of 11 feet bgs.

• Visual and olfactory evidence of petroleum contaminated backfill was observed adjacent to the waste oil fill pipe while decommissioning the UST. The release from the UST system was reported to the Oregon DEQ on June 14, 1996. The site was assigned Oregon DEQ UST Cleanup File #26-96-0364.

• The contaminated backfill was stockpiled on-site pending laboratory analyses.

• Three soil samples were initially obtained from the UST excavation and were analyzed for TPH-HCID. Diesel and heavy oil contamination were detected in sample S-1, obtained from the contaminated backfill adjacent to the waste oil fill pipe. Subsequent analysis detected 8,800 ppm of diesel and other non-gasoline fraction hydrocarbons per TPH-418.1 Modified. Total petroleum hydrocarbons were not detected in the two soil samples collected from the beneath the eastern and western ends of the concrete deadman.

• As per the instructions of the Oregon DEQ UST Duty Officers, two additional soil samples were collected from beneath the northern and southern sides of the concrete deadman. The Oregon DEQ UST Duty Officers also required that all four soil samples collected from beneath the concrete deadman be analyzed by TPH-418.1 Modified.

Laboratory analyses of the confirmatory soil samples reported concentrations of diesel and other non-gasoline fraction hydrocarbons ranging from 24 ppm to 53 ppm per TPH-418.1 Modified.

• The Oregon DEQ UST Duty Officers also required that the most contaminated soil sample, S-1, be analyzed for cadmium, chromium, and lead by TCLP analysis, and for volatile chlorinated and aromatic solvents per EPA Method 8240.

• None of the three TCLP metals were detected at or above the test method limits in sample S-1.

• The only volatile chlorinated or aromatic solvent detected was o-xylene at 0.012 parts per million (ppm). None of the other volatile chlorinated or aromatic solvents were detected.

• The UST excavation was backfilled on June 18, 1996, as authorized by the Oregon DEQ UST Duty Officer.

• On July 1, 1996, 101.53 tons of stockpiled petroleum contaminated soil were transported to the TPST facility located in Portland, Oregon, for remediation and recycling by thermal desorption to approved regulatory standards.

Numeric Soil Matrix Cleanup Standards

• A site-specific Soil Matrix Score corresponding to a Level 2 Numeric Soil Cleanup Standard was calculated for this soil remediation project. The Level 2 Numeric Soil Cleanup Standards are 80 ppm for gasoline and 500 ppm for diesel and other non-gasoline fraction hydrocarbons.

• All confirmatory soil sample analyses for total petroleum hydrocarbons were substantially below the Level 1 soil cleanup standard, the most stringent Oregon DEQ Numeric Soil Cleanup Standard, of 40 ppm for gasoline and 100 ppm for diesel and other non-gasoline fraction hydrocarbons.

• The only volatile chlorinated or aromatic solvent detected, 0.012 ppm o-xylene, was substantially below the Oregon DEQ soil cleanup level for total xylenes of 800 ppm. None of the other waste oil analytes were detected.

• De Minimis Inc. concludes that no further action is required to characterize or remediate this petroleum UST release site.

6.0 Recommendations

Within the constraints of the Work Plan and the sampling and analytical program, De Minimis Inc. (DMI) Environmental Management presents the following recommendations for further environmental investigation of the subject property.

- DMI has requested closure of the this petroleum UST release from the Oregon DEQ and that no further action is required.

- DMI recommends that the Client retain a copy of this report for a period of ten (10) years following the first transfer of the property or change of ownership, as per OAR 340-122-360 (2).

This assessment was conducted expressly for Q Lube, Inc., the Client. The use of the information provided in this report with respect to the disposition of said property is the sole responsibility of the above-named entities and/or their designees.

If you have any questions or require further clarification regarding the information in this report, please feel free to contact DMI at your convenience. Thank you for allowing DMI to serve your environmental needs and to present this information.

Respectfully submitted,

De Minimis Inc. Environmental Management

Dale L. Haar
Project Manager

Rick I. Johnson
Principal

7.0 Limitations

The data presented in this report was collected, analyzed, and interpreted following the standards of care, skill, and diligence ordinarily provided by a professional in the performance of similar services as of the time the services were performed.

The observations, interpretations, and recommendations presented in this report are based on the assumption that the conditions do not vary from those found during the course of the investigation at the project site. If any variations are encountered during any further investigations for this site, De Minimis Inc. (DMI) Environmental Management should be notified so that supplemental interpretations can be made. The observations and interpretations of this report are intended only for the subject site and the sampling conditions described. The observations and interpretations of this report must not be extended to adjacent areas.

Information has been gathered during this assessment from third party and agency sources. De Minimis Inc. has reported this information as supplied to them by these third parties and agencies and accepts no liability as to its accuracy.

The findings of this report are valid for the dates and under the conditions of the sampling, observations, and testing. However, changes in the conditions of the subject property, neighboring properties, or changes in applicable standards can occur with broadening of knowledge. Accordingly, the observations and findings presented in this report may be invalidated by changes outside of our control.

DMI does not offer any legal opinion, representation, or interpretation of environmental laws, rules, regulations, or policies of federal, state, or local governmental agencies.

8.0 References

Q Lube, Inc.
Ron Witzel, Director of Construction
Carol Bellon, Development Coordinator
John Torbenson, Area Supervisor

Oregon Department of Environmental Quality
Jim Maresh, UST Duty Officer, Northwest Region
Mitch Scheel, UST Duty Officer, Northwest Region
Steve Hooper, UST Duty Officer, Northwest Region

National Environmental Testing (NET), Inc.
Analytical reports

Environmental Cleanup Manual, Oregon Department of Environmental Quality; June 1994; 114 p.

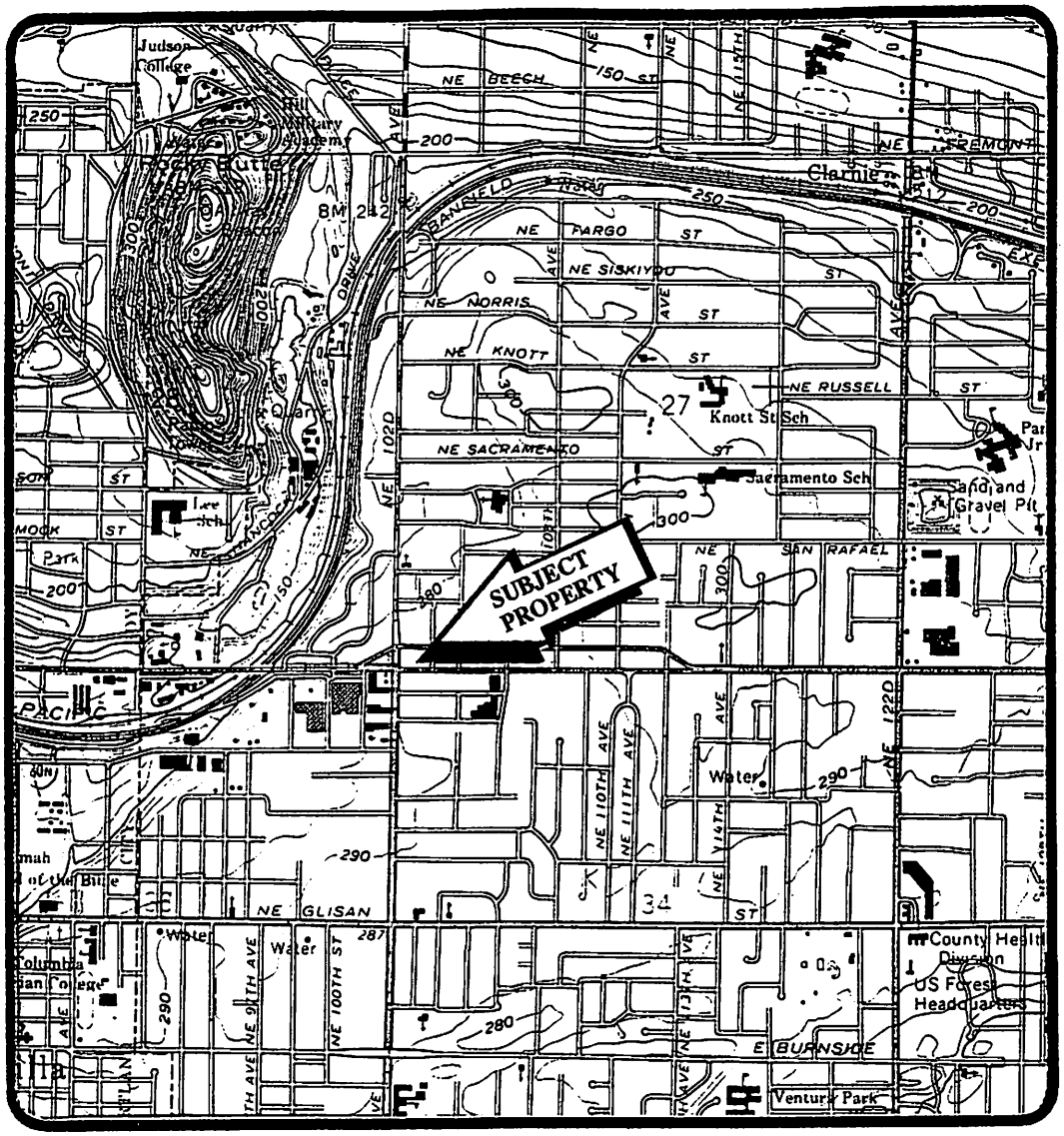
Maps utilized:
United States Geological Survey topographic map - Mount Tabor, Oregon - Washington 7.5 minute quadrangle

9.0 Glossary of Abbreviations

bgs	below ground surface
DEQ	Oregon Department of Environmental Quality
DMI	De Minimis Inc. Environmental Management
EPA	U.S. Environmental Protection Agency
LEL	lower explosive limit
µg/Kg	microgram per kilogram
mg/Kg	milligram per kilogram
NET	National Environmental Testing, Inc.
ND	not detected
OAR	Oregon Administrative Rules
PCB	polychlorinated biphenyl
PCS	petroleum-contaminated soil
ppb	parts per billion
ppm	parts per million
QA/QC	Quality Assurance/Quality Control
TCLP	Toxicity Characteristic Leachate Procedure
TPH-418.1 Mod.	Total Petroleum Hydrocarbon-418.1 Modified
TPH-G	Total Petroleum Hydrocarbon-Gasoline
TPH-HCID	Total Petroleum Hydrocarbon-Hydrocarbon Identification
USCS	Unified Soil Classification System
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	underground storage tank
VEC	Varchan Environmental Construction

APPENDIX A

MAPS



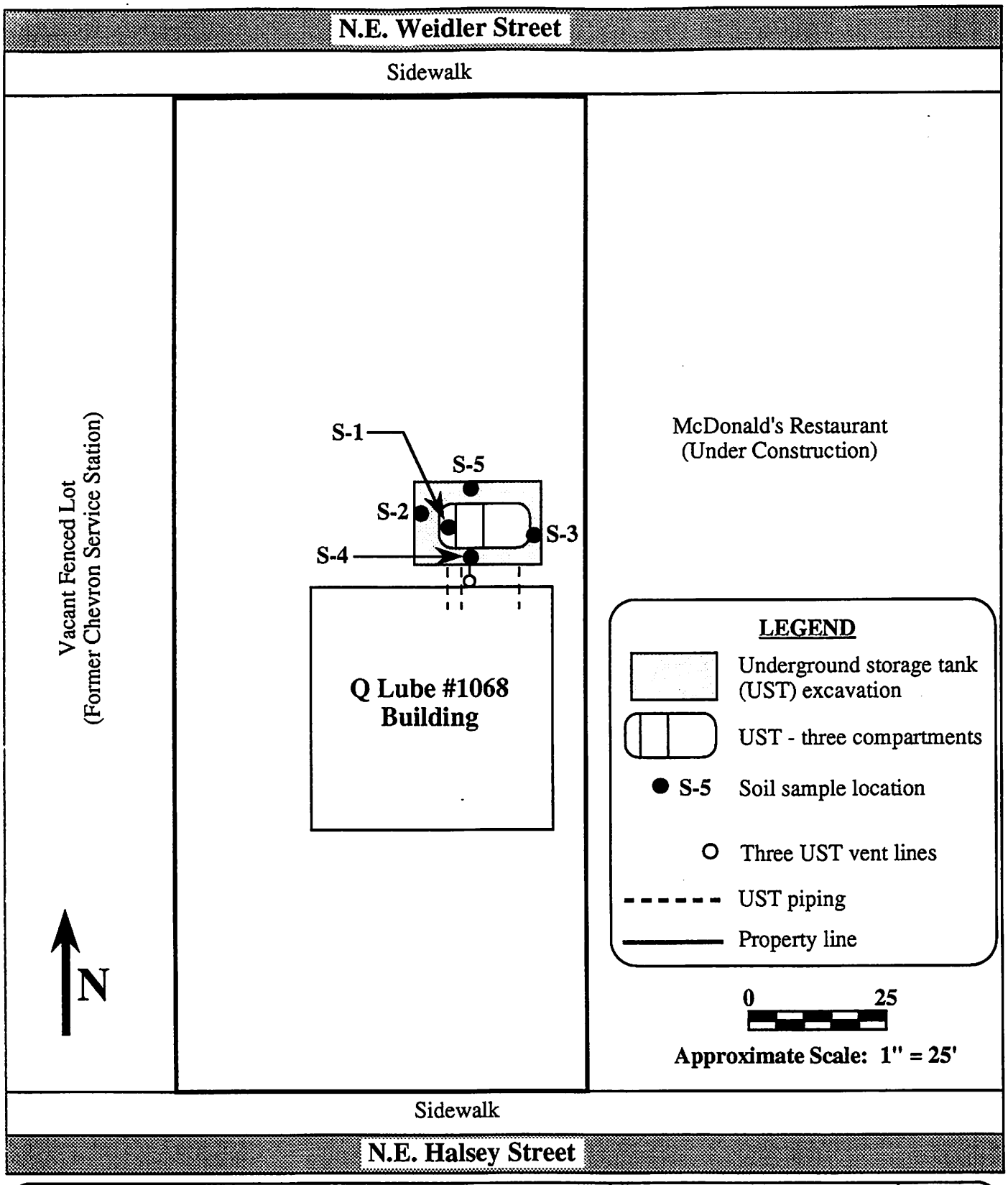
0 1/2 1

SCALE IN MILES

N

NOTE: Base Map From Mount Tabor, Oregon-Washington, U.S.G.S. Quadrangle, 7.5 Minute Series

PROJECT NO.	DE MINIMIS INC.	Site Location Map	FIGURE
00494-0696	ENVIRONMENTAL MANAGEMENT 34 N.W. FIRST AVENUE, SUITE 101 PORTLAND, OREGON 97209 (503) 295-4074	Q Lube #1068 UST Cleanup # 26-96-0364 10227 N.E. Halsey Street Portland, OR 97220	1
June 13, 1996			



PROJECT NO.	DE MINIMIS INC.	Site Location Map	FIGURE
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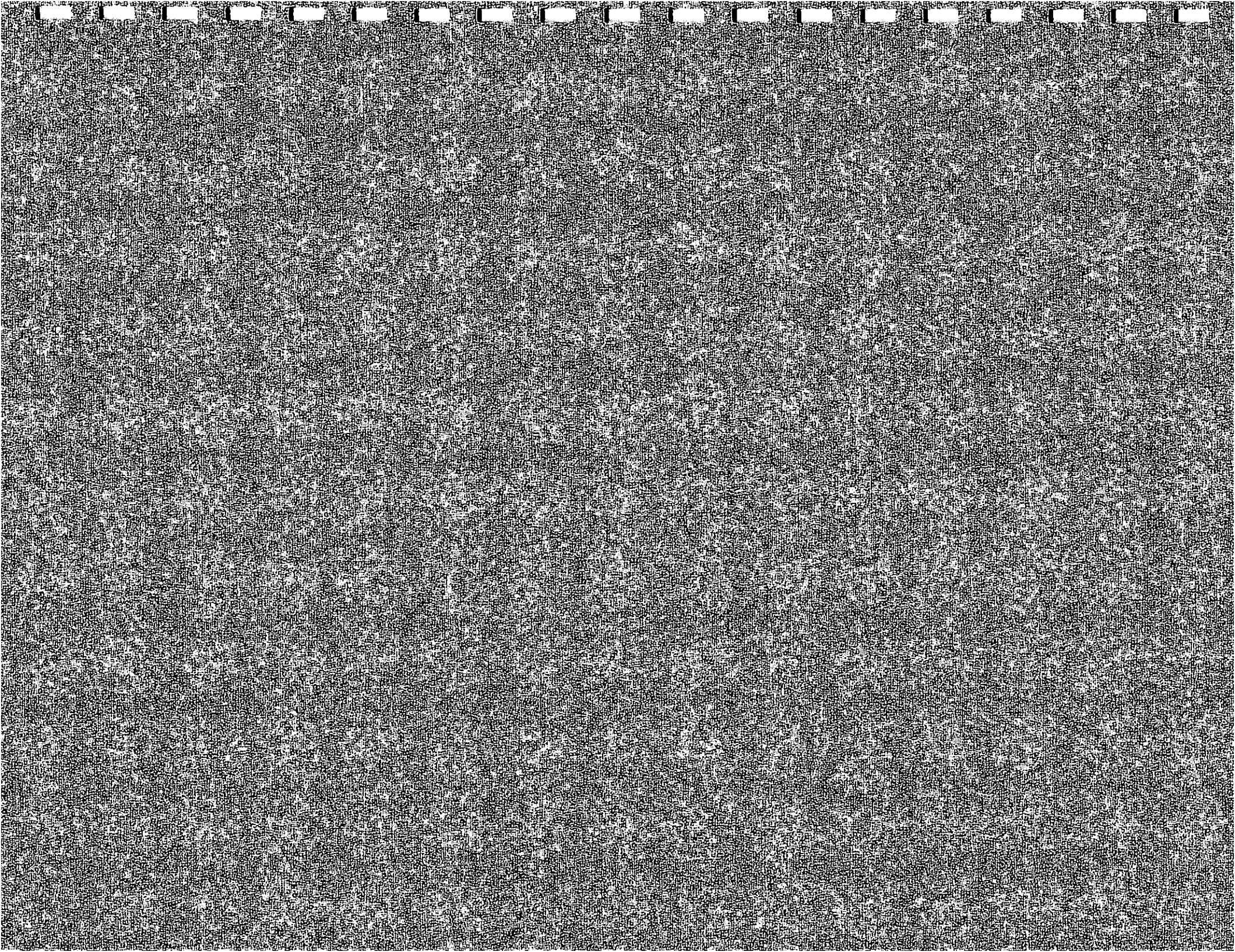
June 13, 1996			

APPENDIX B

SITE PHOTOGRAPHS



Photograph 1

Q Lube #1068, view to the south. Note the UST fill pipes in the foreground and the vent lines located on the structure.

Photograph 2

View to the east of the UST excavation. Contaminated backfill was discovered adjacent to the fill pipes in the foreground.

Photograph 3

The UST was saw-cut and rendered unusable.

Photograph 4

UST excavation, view to the west. Note the strap that secured the UST to the concrete deadman.

Photograph 5

UST excavation, view to the east. Note the strap that secured the UST to the concrete deadman.

Photograph 6

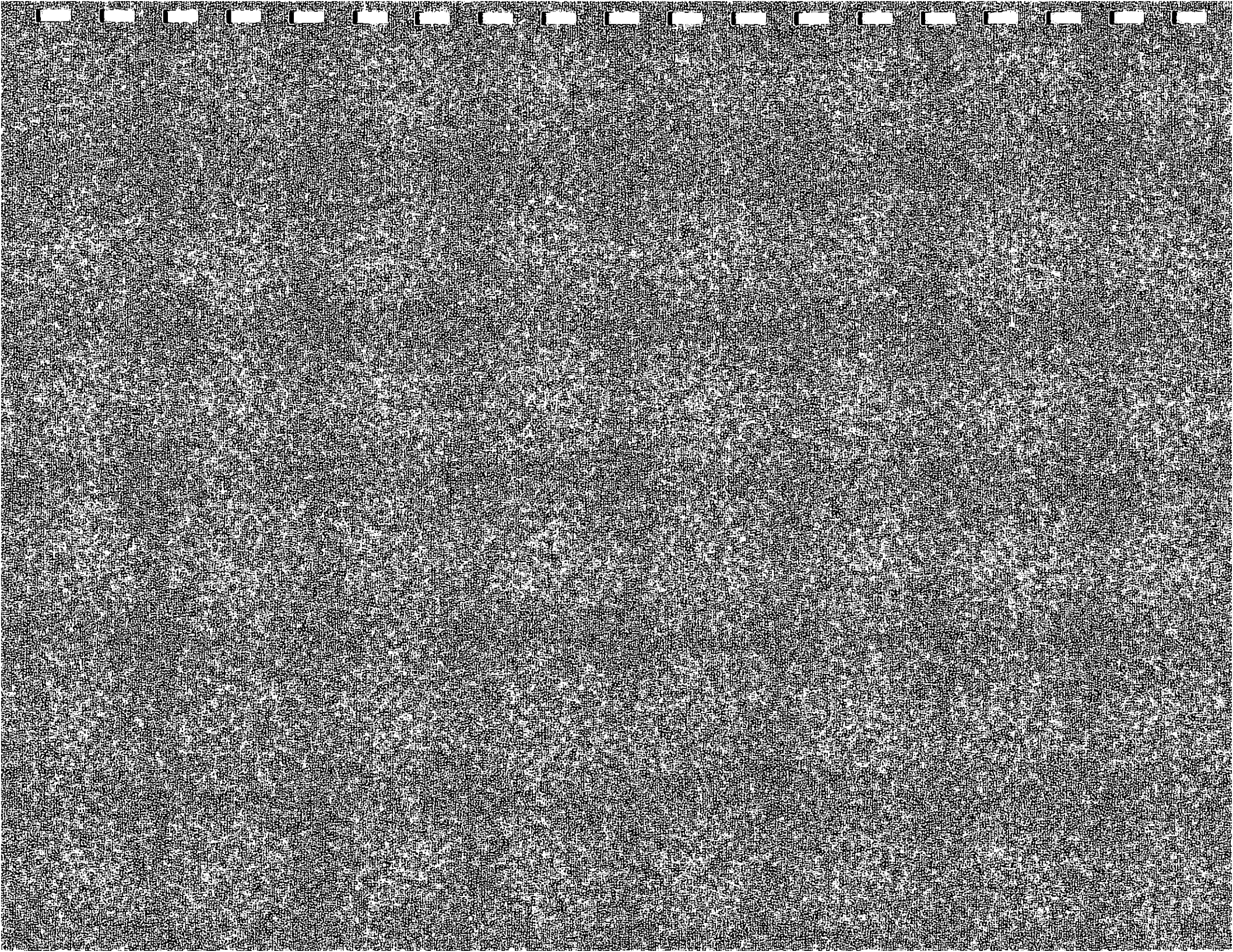
Preparing to remove the UST from the subject property.

APPENDIX C

PERMITS, RECEIPTS

and

CHECKLISTS



To: Dale Haar 2950112 Fx

From: Vaughan

Re: Q Lube / Halsey Fire Permit

City of Portland
FIRE PREVENTION DIVISION
55 S.W. Ash Street
Portland, OR 97204 Phone: 823-3712

PERMIT NUMBER: T960602
FEE AMOUNT: $120.80
CODE: 19D(1)

Subject to the compliance with the ordinances of the City of Portland, permission is hereby granted for the installation of:

___ NEW INSTALLATION	___ ADDITION	___ ALTERATION	___ REPAIR	___ ABANDON	_x_ REMOVE
_x_ LIQUIDS/TANKS	___ L.P.G.	___ COMPRESSED GASES	___ PAINT SPRAY BOOTHS	___ CRYOGENS	___ OTHER

Located at: 10227 NE HALSEY - Q-LUBE #1068

Contractor: VARCHAN ENVIRON

Permit Issued: 06/10/96 By: DOUG FRIANT Fire Marshal's Office

INSPECTION RECORD: DATE INSPECTOR OTHER

APPROVE TANK/CYLINDER LOCATION _____
APPROVE PIPING AND VALVES _____
PRESSURE TEST WITNESSED _____
OK TO COVER _____

FINAL APPROVAL
INSPECTOR: Doug Friant
DATE: 7/1/96

NOTE: Keep card conspicuously posted on premises until job is completed and final inspection made. Request for final inspection must be made within 14 days after completion of work. Permit valid for 180 days only

Received of: VARCHAN ENVIRON The sum of: ONE HUNDRED TWENTY DOLLARS & 80/100----------

Date: 06/10/96 By: Norma Scott Paid Amount: $ 120.80 ___ Cash _X_ Check 2844

Oregon Department of Environmental Quality

UNDERGROUND STORAGE TANK DECOMMISSIONING CHECKLIST

DEQ FACILITY NUMBER: 10837 DATE: 6-17-96

FACILITY NAME: Q Lube # 1068

FACILITY ADDRESS: 10227 NE Halsey Street

Portland OR 97220

PHONE:

A. SAFETY EQUIPMENT ON JOB SITE:

Fire Extinguisher: Type/Size: 20# BC Recharge Date: 2-95

Combustible Gas Detector: Model: GASTEC TANKTECHTON Calibration Date: 6-96

Oxygen Analyzer: Model: " Calibration Date: "

B. DECOMMISSIONING: All Tanks: (Unk. = Unknown, N/A = Not Applicable) (Check Appropriate Box)

	Yes	No	Unk	N/A
1. All electrical equipment grounded and explosion proof?	✓			
2. Safety equipment on job site?	✓			
3. Overhead electrical lines located?	✓			
4. Subsurface electrical lines off or disconnected?	✓			
5. Natural gas lines off or disconnected?	Ø CAL			✓
6. No open fires or smoking material in area?	✓			
7. Vehicle and pedestrian traffic controlled?	✓			
8. Excavation material area cleared?	✓			
9. Rainwater runoff directed to treatment area?				✓
10. Drained and collected product from lines?	✓			
11. Removed product and residual from tank?	✓			
12. Cleaned tank?	✓			
13. Excavated to top of tank?	✓			
14. Removed tank fixtures? (pumps, leak detection equip.	✓			
15. Removed product, fill and vent lines?	✓			

C. TANK ABANDONMENT IN-PLACE:

16. Sampling plan approved by DEQ? Date: _____ DEQ Staff: _____			✓

E. DECOMMISSIONING: All Tanks: (Unk. = Unknown, N/A = Not Applicable) (Check Appropriate Box)

	Yes	No	Unk	N/A
17. Contamination concerns fully resolved?				
18. Fill Material? Type: 3/4" gravel	✓			
D. TANK REMOVAL:				
19. Tank placement area cleared, chocks placed?	✓			
20. Purged or ventilated tank to prevent explosion? Method used: Dry ice (CO2) Meter reading: 3K 10% O2 0% LEL; 2K 12% O2 0% LEL; 1K 10% O2 0% LEL	✓			
21. No chains or steel cables wrapped around tank for removal?	✓			
22. Tank removed, set on ground, blocked to prevent movement?	✓			
23. Tank set on truck and secured with strap(s)?	✓			
24. Tank labeled before leaving site?	✓			
E. SITE ASSESSMENT:				
25. Site assessed for contamination? See OAR 340-122-340	✓			
26. Soil samples taken and analyzed?	✓			
27. Decommissioning/Change-in-Service report sent to DEQ?				
28. Was contamination found? Date/Time: 6-13-96 9:10a	✓			
29. Was contamination reported to DEQ? By: Dan Haar Date/Time: 6.14.96 09:14a DEQ Staff: Mike Schaefer	✓			
30. Was hazardous waste determination made for tank contents (Liquids/sludges)?				✓

31. Disposal location of tank(s) contents.
Name: Sunwest Energy Corp Date: 6.13.96
Address: MA Crum Plant 2601 N. Hayden
Portland, OR
Attach disposal receipt.

32. Disposal or recycling location of removed tank(s) and associated piping.
Name: Schnitzer Steel Products Date:
Address: 1201 N Burgard
Portland, OR
Attach disposal receipt.

33. If tank(s) are intended to be reused, identify new tank site.
Name: Date:
Address:

Purpose of Reuse:

F. WORK PERFORMED BY:

DEQ Service Provider's License #: 14317

Name: Jacobs Environ. Const.

Telephone: 503 626 1122

DEQ Decommissioning Supervisor's License #: 12640

Name: Edgar R. Grant

Telephone: 503 234 4285

E. CHECKLIST FILING:

1. Provide copy of checklist to the UST owner and operator.

2. Send completed checklist to the DEQ headquarters within 30 days after the excavation is backfilled.

NOTE: If contamination was found during decommissioning and reported to DEQ regional office, this report may be submitted with either the first interim cleanup report or the final cleanup report, whichever is first.

Send Completed and Signed Form to: Department of Environmental Quality
UST Program - Decommissioning Checklist
811 S.W. Sixth Ave.
Portland, Oregon 97204

Or FAX Completed and Signed Form to: (503) 229-6954

I have personally reviewed this decommissioning checklist and find it to be true and complete.

Signature: Edgar R. Grant (Licensed Supervisor) Date: 6-19-96

Signature: _____ (Owner or Operator) Date: _____

For information: (503) 229-5733 or Toll Free in Oregon UST HELPLINE 1-800-742-7878

Oregon Department of Environmental Quality
UNDERGROUND STORAGE TANK DECOMMISSIONING/SERVICE CHANGE REPORT

DEQ FACILITY NUMBER: 10837 DATE: 6-12-96

FACILITY NAME: Q Lube # 1068

FACILITY ADDRESS: 10227 NE Hwy 99

Portland, OR 97220

PHONE:

AQA # 26-96-0364

The following information MUST be submitted by the underground storage tank owner, operator or licensed DEQ Supervisor within 30 days following completion of the tank decommissioning or changing tank contents to a non-regulated substance. (OAR 340-150-001 though -150)

The attached supplemental checklist should be prepared by the person performing the decommissioning or service change. The checklist should be provided to DEQ and the tank owner to demonstrate that all required practices were followed.

Ordinarily the checklist is filled out by the DEQ licensed Service Provider or Supervisor. Owners who wish to personally decommission a tank or change service must follow all DEQ and other applicable standards. The owner should contact the DEQ Regional Office prior to starting the work to receive current copies of underground storage tank regulations.

A. DATES:

Decommissioning/Service Change Notice - Date Submitted: _____ (30 days before work starts)

Work Start Telephone Notice - Date Submitted: 6-10-96 (3 working days before work starts)

DEQ Person Notified: Mitch Scott Log # 26-30-96-65

Date Work Started: 6-13-96

Date Work Completed: 6-17-96

Note: Provide the following information if any soil or water contamination is found during the decommissioning or service change. Contamination must be reported by the UST owner or operator within 24 hours. The licensed service provider must report contamination within 72 hours after discovery unless previously reported.

Date Contamination Reported: 6-4-96 By: Dave Haan

DEQ Person Notified: Mitch Scott

Backfill Telephone Notice - Date Called: 6-18-96 (before backfilling) 8/8

DEQ Person Notified: Jim Markgraf

B. PERMITS:

Note: DEQ permits or an addendum to the UST permit(s) may be needed where soil or water cleanup is required.

DEQ Water Discharge Permit #: _____ Date: _____

Disposed to (Location): _____

DEQ Solid Waste Disposal Permit #: _____ Date: _____

B. PERMITS (Continued)

UST Soil Treatment Permit Addendum - Type: ______________ Date: ______________

Soil Disposal or Treatment Location: ______________________________

C. TANK INFORMATION:

Tank #	DEQ UST Permit	Tank Size in (Gallons)	Product: Gasoline, Diesel, Used Oil, Other?		Closure or Service Change?			Tank to be Replaced?	
			Present	New	Tank Removal	Closure∞ Inplace	Other∞ Use	Yes*	No
1		3000	10w-30 oil		✓				X
1		2000	10w-40 oil		✓				X
1		1000	used oil		✓				X

* Where decommissioned tank(s) are replaced by new underground storage tanks the UST owner or operator must submit a new permit application containing information on the new tanks 30 days before placing them in service.

∞ Submit a soil sampling plan to the DEQ regional office and receive plan approval prior to starting work if 1) tank is to be decommissioned in-place, 2) tank contents are changed to a non-regulated substance, 3) tank contains a regulated substance other than petroleum, or 4) tank changed to non-regulated use.

D. DISPOSAL INFORMATION:

Tank #	Tank & Piping Disposal Method				Disposal Location of Tank Contents *	
	Scrap	Land-fill	Other	Identify Location & Property Owner	Liquids	Sludges
1	✓			Schnitzer Steel 8101 N Burgard	Sunwest Energy Corp 2601 N. Newark	
1	✓			Portland, OR	Portland, OR	
1	✓			↓	↓	

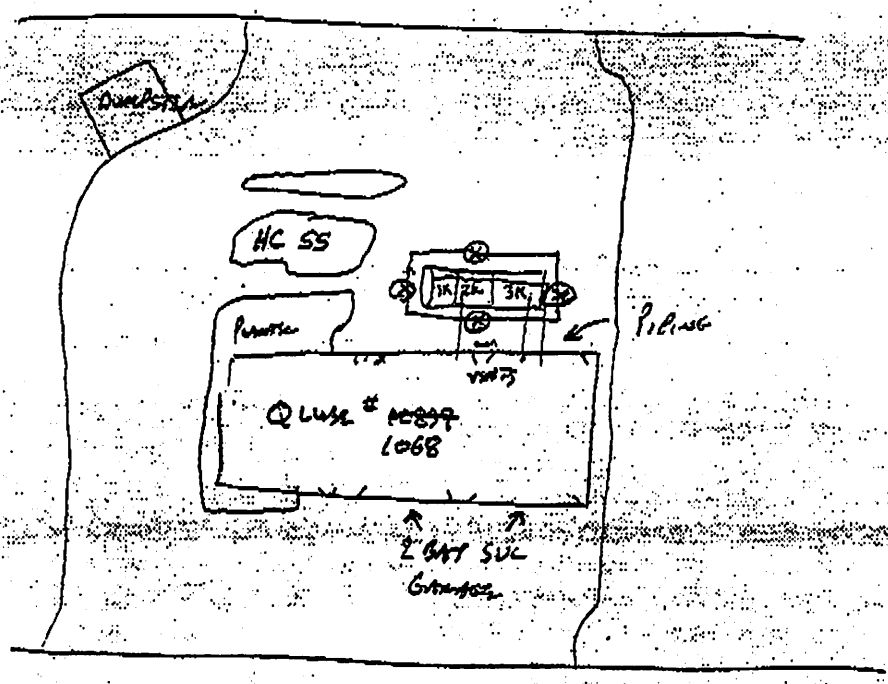
* Note: The tank contents, the tank and the piping may be subject to the requirements of Hazardous Waste regulations. If you have questions, contact the DEQ Hazardous Waste Section at (503) 229-5913 or DEQ regional office hazardous waste staff.

E. CONTAMINATION INFORMATION:

Tank #	Groundwater in pit?	Product odor in soil?	Product stains in soil?	Number of Samples	Laboratory (Name, City, State, Phone)
1	No		✓		
1	No		✓		
1	No				

* Note: Sampling is required if groundwater is encountered. See cleanup rules.

F. SITE SKETCH: (Show location of adjacent roads, property lines, structures, dispenser, & all USTs). (Show North, general direction of ground slope and soil sample locations. Sketch does not need to be drawn to scale. You may attach a separate drawing.)



G. WORK PERFORMED BY:

DEQ Service Provider's License #: 1437 Construction Contractors License #: 102489

Name: VANCOUVER ENVIRO CONST.

Telephone: 503 696 1122

DEQ Decommissioning Supervisor's License #: 12640

Name: CHARLES A. COMBS

Telephone: 503 234 4259

DEQ Soil Matrix Service Provider's License #: _____ (If applicable)

Name: _____

Telephone: _____

DEQ Soil Matrix Supervisor's License #: _____ (If applicable)

Name: _____

Telephone: _____

H. ATTACHMENTS TO THIS REPORT:

1. Attach a copy of the laboratory report showing the results of all tests on all soil and water samples. The laboratory report must identify sample collection methods, sample location, sample depth, sample type (soil or water), type of sample container, sample temperature during transportation, types of tests, and copies of analytical laboratory reports, including QA/QL information. Include laboratory name, address and copies of chain-of-custody forms.

2. If contamination is detected and a Level 2 or Level 3 soil matrix cleanup standard is selected attach a copy of the soil matrix analysis for the site including methods of determining soil type, depth to groundwater, and sensitivity of uppermost aquifer.

I. REPORT FILING:

This report, signed by the tank owner or operator, complete with all applicable attachments must be filed with DEQ headquarters within 30 days after the excavation is backfilled or change-in-service is complete. Contact the DEQ regional office prior to filing this report where special circumstances exist at the site (such as water in pit, remaining pockets or contamination, etc.).

NOTE: If contamination was found during site assessment at decommissioning or change-in-service and reported to DEQ regional office, this report may be submitted with either the first interim cleanup report or the final cleanup report, whichever is first.

Return Completed and Signed Form to: Department of Environmental Quality
UST Program - Decommissioning Report
811 S.W. Sixth Ave.
Portland, Oregon 97204

Or FAX Completed and Signed Form to: (503) 229-6954

I have personally reviewed this report and the attachments and find them to be true and complete.

Signature: _____ Date: _____
(Owner or Operator)

For information: (503) 229-5733 or Toll Free in Oregon UST HELPLINE 1-800-742-7878

SWT 11436

INVOICE

Material Pick Up

Sunwest Energy Corp.

MACRUM PLANT

P.O. Box 17008 • Portland, OR 97217-0008
EPA - DEQ Approved • EPA # ORD 057068546
(503) 286-8200

Customer Vaughan Environmental Corp

Address 14314 S.W. Allen Blv #122

Phone # ( ) 626-1122 Contact

Date 6-13-96 Next Service Due

Quantity	Description	Price	Amount
200 GAL	Oily water		
5 hours Truck Time			
Job at Q Lube Hwy			

TOTAL DUE: $

Comments

DRIVER: Howard

ADDITIONAL TERMS

1. Payment is due upon completion
2. The service charge is 2% per month and shall be charged on all account balances thirty days after completion.
3. In the event this account is placed in the hands of an attorney for collection, the Customer agrees to pay attorney's reasonable collection charges. If suit or action is instituted to collect any sum due hereunder, the prevailing party shall be entitled to their reasonable attorney fees.
4. The laws of the State of Oregon shall control, and suit or actions shall be commenced in Lane County Oregon
5. The Customer p[illegible]ally warrants the accuracy of the description of the [illegible]ances identified and shall be respons[illegible] for any costs incurred as the result of misidentificati[illegible]

Schnitzer Steel Products Co. Portland, Oregon No. 645333

					AMOUNT
17 JUN 96	GROSS LBS: 40920 TARE LBS: 29420 103-00 UNPREPARED		NET TONS 5.750	PRICE $55.00 NT	EXT. PRIC $316.25

CHECK TOTAL: $316.25

88119

PLEASE DETACH BEFORE DEPOSITING

CUSTOMER REPORT OF

Customer Name: : Q LUBE 1068

Reporting FROM : 07-01-96 00:00 TO : 07-11-96 23:59

DATE : 07-11-96
TIME : 16:29:28

Date In	Manifest No.:	Transporter:	Driver's Name:	Gross lb	Tare lb	Net lb	Net Tons	:
7-01-96	09-01683	CELORIE	RANDY DEMERITT	75260	33800	41460		20.73
7-01-96	09-01683	CELORIE	ROGER MOORE	90000	36200	53800		26.90
07-01-96	09-01683	CELORIE	STEWART CADE	79260	33660	45600		22.80
07-01-96	09-01683	CELORIE	RANDY DEMERITT	96140	33940	62200		31.10
TOTALS :				340660	137600	203060		101.53

APPENDIX D

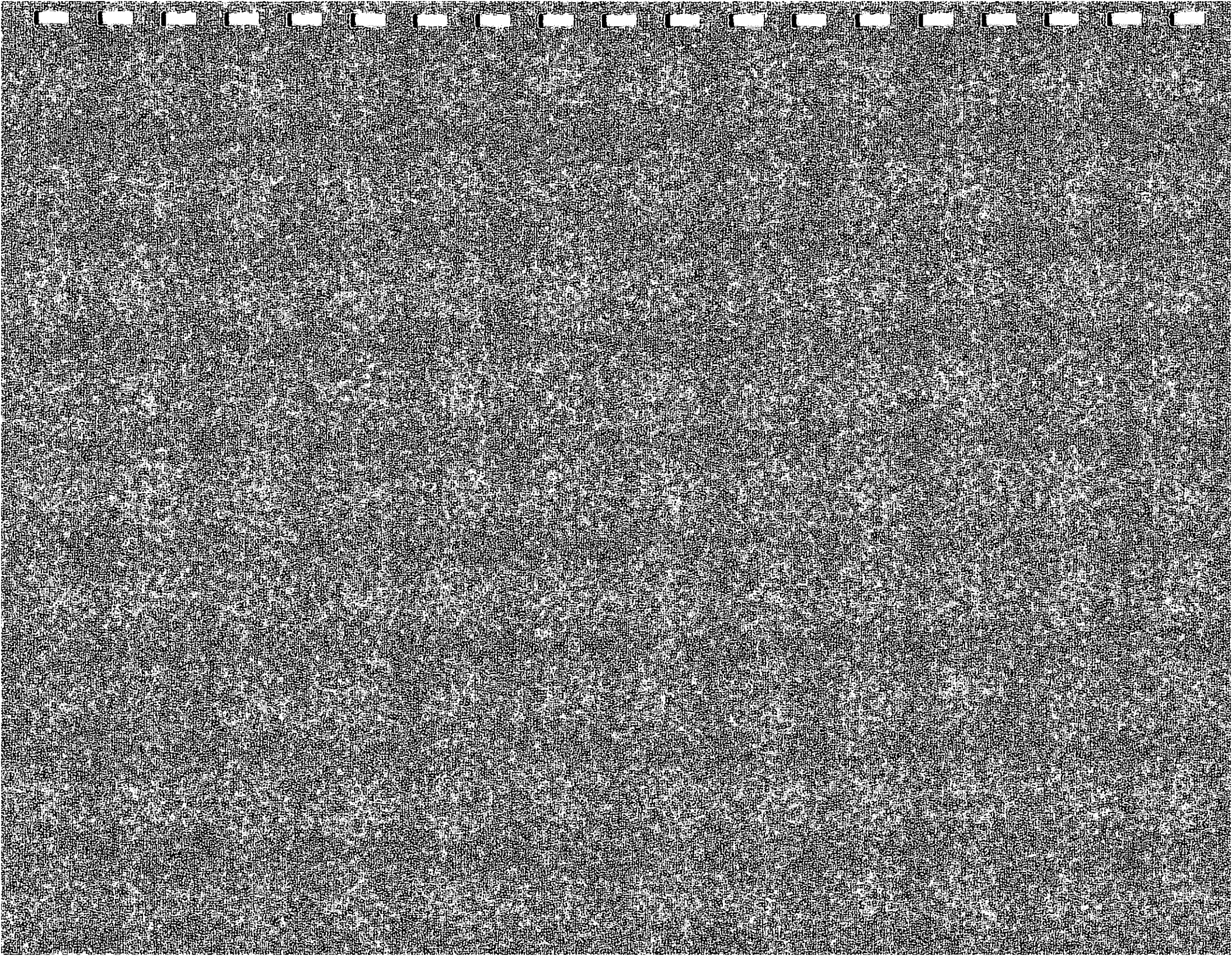
LABORATORY ANALYTICAL RESULTS,

CHAIN of CUSTODY,

and

QUALITY ASSURANCE/QUALITY CONTROL

DATA REVIEW



Quality Assurance Data/Analytical Data Review

Five soil samples were submitted to National Environmental Testing (NET), located in Portland, Oregon, for laboratory analyses. Three of the soil samples were initially analyzed for total petroleum hydrocarbons per Oregon DEQ Method TPH-HCID. All five soil samples were analyzed by TPH-418.1 Modified, since diesel and heavy oil range hydrocarbons were detected in the TPH-HCID. Soil sample S-1 was also analyzed for Toxicity Characteristic Leachate Procedure (TCLP) for cadmium, chromium, and lead per EPA Methods 1311/6010, and volatile chlorinated and aromatic solvents per EPA Method 8240. NET maintains an extensive internal quality assurance program as documented in their laboratory quality assurance manual. The laboratory uses a combination of Quality Control Indicators (QCIs) to evaluate the quality of their analytical work, that of the instrument, method, and sample. Indicators may include sample holding times, laboratory procedure and/or method blanks, laboratory matrix spikes/matrix spike duplicates, duplicates, surrogate recoveries, calibration standards, and laboratory control standards.

In soil sample S-1, NET reported that the diesel hydrocarbon detection appeared to extend to a heavier hydrocarbon range than diesel.

Listed below are the data quality goals for this project:

Holding Times: All samples were analyzed within recommended holding times.

Laboratory Blanks: Laboratory blanks were analyzed to evaluate the potential presence of contaminants that may have been introduced during sample analysis. No analytes were detected in the laboratory blanks.

Continuing Calibration Verification: Continuing Calibration Verification (CCV) involves the analysis of a mid-range standard after the analysis of a specific number of samples to assure that the instrument is retaining its initial calibration. CCV is expressed as a percent recovery. All CCV recoveries were within recommended control limits.

Matrix Spike/Matrix Spike Duplicates: Matrix spikes and matrix spike duplicates (MS/MSD) were analyzed to monitor matrix effects. All MS/MSD recoveries were within recommended control limits.

Laboratory Control Standard: A laboratory control standard (LCS) is a quality control sample of known composition. It is prepared and analyzed just like a sample. A laboratory control sample is used to assess the accuracy of an analysis and is expressed as percent recoveries. All LCS recoveries were within the recommended control limits.

Duplicates: Duplicate analyses were performed to give an indication of the precision of the analysis and of the representativeness of the subsamples analyzed at the lab. With the exception of sample S-3, duplicate analyses were within laboratory parameters.

In soil sample S-3, NET reported that the duplicate relative percent difference (RPD) for sample S-3 TPH-418.1 Modified analysis was greater than 20%. The sample was re-extracted and re-analyzed with similar results. NET reported that this difference is due to a matrix interference, likely a non-homogeneity of the sample.

Surrogates: Surrogates were added to the samples before extraction and/or analysis to monitor sample handling procedures, matrix effects, and purging efficiency. Surrogate recoveries were all within recommended control limits. Matrix interference (MI) was reported in sample S-1 for the TPH-HCID analysis.

Summary: There were no significant variations from the laboratory protocols that would invalidate the analytical data. NET analytical results were in conformance with the data quality goals. DMI accepts the referenced laboratory data for use on this project.

NATIONAL ENVIRONMENTAL TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Mr. Dale Harr
De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996
NET Account No.: 8200
NET Job Number: 96.01719

Project: HQL
Location: HQL

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
64813	S-1	SOIL	06/13/1996	06/13/1996
64814	S-2	SOIL	06/13/1996	06/13/1996
64815	S-3	SOIL	06/13/1996	06/13/1996
64875	S-4	SOIL	06/17/1996	06/17/1996
64876	S-5	SOIL	06/17/1996	06/17/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Mr. Dale Harr
De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

06/24/1996
Job No.: 96.01719

Project Name: HQL
Date Received: 06/13/1996

Sample Number	Sample Description
64813	S-1

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
ICP/AA Digestion - Water	ICP	-			06/20/1996	
TCLP EXTRACTION PREP	1311	-			06/19/1996	
TCLP - Cadmium, ICP	6010	ND	0.05	mg/L	06/21/1996	
TCLP - Chromium, ICP	6010	ND	0.05	mg/L	06/21/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	06/21/1996	
8240 VOLATILES (S)						
Acetone	8240	ND	0.02	mg/Kg	06/19/1996	
Benzene	8240	ND	0.005	mg/Kg	06/19/1996	
Bromodichloromethane	8240	ND	0.005	mg/Kg	06/19/1996	
Bromoform	8240	ND	0.005	mg/Kg	06/19/1996	
Bromomethane	8240	ND	0.005	mg/Kg	06/19/1996	
2-Butanone	8240	ND	0.02	mg/Kg	06/19/1996	
Carbon Disulfide	8240	ND	0.005	mg/Kg	06/19/1996	
Carbon Tetrachloride	8240	ND	0.005	mg/Kg	06/19/1996	
Chlorobenzene	8240	ND	0.005	mg/Kg	06/19/1996	
Chloroethane	8240	ND	0.005	mg/Kg	06/19/1996	
2-Chloroethylvinyl ether	8240	ND	0.02	mg/Kg	06/19/1996	
Chloroform	8240	ND	0.005	mg/Kg	06/19/1996	
Chloromethane	8240	ND	0.005	mg/Kg	06/19/1996	
Dibromochloromethane	8240	ND	0.005	mg/Kg	06/19/1996	
1,4-Dichlorobenzene	8240	ND	0.005	mg/kg	06/19/1996	
1,2-Dichlorobenzene	8240	ND	0.005	mg/Kg	06/19/1996	
1,3-Dichlorobenzene	8240	ND	0.005	mg/Kg	06/19/1996	
1,1-Dichloroethane	8240	ND	0.005	mg/Kg	06/19/1996	
1,2-Dichloroethane	8240	ND	0.005	mg/Kg	06/19/1996	
1,1-Dichloroethene	8240	ND	0.005	mg/Kg	06/19/1996	
cis-1,2-Dichloroethene	8240	ND	0.005	mg/Kg	06/19/1996	
trans-1,2-Dichloroethene	8240	ND	0.005	mg/Kg	06/19/1996	
1,2-Dichloropropane	8240	ND	0.005	mg/Kg	06/19/1996	
cis-1,3-Dichlororopene	8240	ND	0.005	mg/Kg	06/19/1996	
trans-1,3-Dichloropropene	8240	ND	0.005	mg/Kg	06/19/1996	
Ethylbenzene	8240	ND	0.005	mg/Kg	06/19/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Mr. Dale Harr
De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

06/24/1996
Job No.: 96.01719

Project Name: HQL
Date Received: 06/13/1996

Sample Number 64813 — Sample Description S-1

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
2-Hexanone	8240	ND	0.005	mg/Kg	06/19/1996	
Methylene Chloride	8240	ND	0.05	mg/Kg	06/19/1996	
4-Methyl-2-Pentanone	8240	ND	0.005	mg/Kg	06/19/1996	
Styrene	8240	ND	0.005	mg/Kg	06/19/1996	
1,1,2,2-Tetrachloroethane	8240	ND	0.005	mg/Kg	06/19/1996	
Tetrachloroethene	8240	ND	0.005	mg/Kg	06/19/1996	
Toluene	8240	ND	0.005	mg/Kg	06/19/1996	
1,1,1-Trichloroethane	8240	ND	0.005	mg/Kg	06/19/1996	
1,1,2-Trichloroethane	8240	ND	0.005	mg/Kg	06/19/1996	
Trichloroethene	8240	ND	0.005	mg/Kg	06/19/1996	
Trichlorofluoromethane	8240	ND	0.005	mg/Kg	06/19/1996	
Vinyl Acetate	8240	ND	0.005	mg/Kg	06/19/1996	
Vinyl Chloride	8240	ND	0.01	mg/Kg	06/19/1996	
m,p-xylene	8240	ND	0.005	mg/Kg	06/19/1996	
o-xylene	8240	0.012	0.005	mg/Kg	06/19/1996	
OAR TPH-HCID (S) PREP	OAR-HCID	-	-		06/14/1996	
OAR TPH-HCID (S) Dilution Factor		1	-		06/14/1996	
Gasoline	OAR-HCID	ND	20	mg/Kg	06/14/1996	
Diesel	OAR-HCID	Diesel	50	mg/Kg	06/14/1996	F
Heavy Oil	OAR-HCID	H.Oil	100	mg/Kg	06/14/1996	
OAR TPH-418.1M (S) PREP		-	-		06/17/1996	
OAR TPH-418.1M (S)	TPH-418.1M	8800	5	mg/Kg	06/17/1996	

Sample Number 64814 — Sample Description S-2

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
OAR TPH-HCID (S) PREP	OAR-HCID	-	-		06/14/1996	
OAR TPH-HCID (S) Dilution Factor		1	-		06/14/1996	
Gasoline	OAR-HCID	ND	20	mg/Kg	06/14/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Mr. Dale Harr
De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

06/24/1996
Job No.: 96.01719

Project Name: HQL
Date Received: 06/13/1996

Sample Number: 64814
Sample Description: S-2

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
Diesel	OAR-HCID	ND	50	mg/Kg	06/14/1996	
Heavy Oil	OAR-HCID	ND	100	mg/Kg	06/14/1996	
OAR TPH-418.1M (S) PREP		-	-		06/17/1996	
OAR TPH-418.1M (S)	TPH-418.1M	37	5	mg/Kg	06/17/1996	

Sample Number: 64815
Sample Description: S-3

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
OAR TPH-HCID (S) PREP	OAR-HCID	-	-		06/14/1996	
OAR TPH-HCID (S)						
Dilution Factor		1	-		06/14/1996	
Gasoline	OAR-HCID	ND	20	mg/Kg	06/14/1996	
Diesel	OAR-HCID	ND	50	mg/Kg	06/14/1996	
Heavy Oil	OAR-HCID	ND	100	mg/Kg	06/14/1996	
OAR TPH-418.1M (S) PREP		-	-		06/17/1996	
OAR TPH-418.1M (S)	TPH-418.1M	24	5	mg/Kg	06/17/1996	R

Sample Number: 64875
Sample Description: S-4

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
OAR TPH-418.1M (S) PREP		-	-		06/17/1996	
OAR TPH-418.1M (S)	TPH-418.1M	50	5	mg/Kg	06/17/1996	

Sample Number: 64876
Sample Description: S-5

PARAMETERS	METHODS	RESULTS	REPORT LIMIT	UNITS	DATE ANALYZED	FLAG
OAR TPH-418.1M (S) PREP		-	-		06/17/1996	
OAR TPH-418.1M (S)	TPH-418.1M	53	5	mg/Kg	06/17/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Mr. Dale Harr
De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

06/24/1996
Job No.: 96.01719

Project Name: HQL
Date Received: 06/13/1996

SURROGATES	METHODS	RESULTS		DATE ANALYZED	FLAG
Sample Number	**Sample Description**				
64813	S-1				
1,2-Dichloroethane-d4 (Surr.)	8240	117	%	06/19/1996	
Toluene-d8 (Surr.)	8240	90	%	06/19/1996	
Bromofluorobenzene (Surr.)	8240	92	%	06/19/1996	
o-Terphenyl (Surr.)	OAR-HCID	MI	%	06/14/1996	
Sample Number	**Sample Description**				
64814	S-2				
o-Terphenyl (Surr.)	OAR-HCID	102	%	06/14/1996	
Sample Number	**Sample Description**				
64815	S-3				
o-Terphenyl (Surr.)	OAR-HCID	102	%	06/14/1996	

QUALITY CONTROL REPORT
CONTINUING CALIBRATION VERIFICATION

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
TCLP - Cadmium, ICP	0.500	0.50	100.0	06/21/1996
TCLP - Chromium, ICP	0.500	0.51	102.0	06/21/1996
TCLP - Lead, ICP	0.500	0.51	102.0	06/21/1996
8240 VOLATILES (S)				
1,1-Dichloroethene	50	48	96.0	06/14/1996
Benzene	50	52	104.0	06/14/1996
Chlorobenzene	50	49	98.0	06/14/1996
Toluene	50	51	102.0	06/14/1996
Trichloroethene	50	48	96.0	06/14/1996
8240 VOLATILES (S)				
1,1-Dichloroethene	50	47	94.0	06/18/1996
Benzene	50	50	100.0	06/18/1996
Chlorobenzene	50	48	96.0	06/18/1996
Toluene	50	49	98.0	06/18/1996
Trichloroethene	50	47	94.0	06/18/1996
8240 VOLATILES (S)				
1,1-Dichloroethene	50	51	102.0	06/19/1996
Benzene	50	53	106.0	06/19/1996
Chlorobenzene	50	52	104.0	06/19/1996
Toluene	50	54	108.0	06/19/1996
Trichloroethene	50	53	106.0	06/19/1996
OAR TPH-418.1M (S)	41.1	39.1	95.1	06/17/1996
OAR TPH-418.1M (S)	41.1	37.8	92.0	06/17/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT
LABORATORY CONTROL STANDARD

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
TCLP - Cadmium, ICP	0.500	0.48	96.0	06/21/1996
TCLP - Chromium, ICP	0.500	0.49	98.0	06/21/1996
TCLP - Lead, ICP	0.500	0.49	98.0	06/21/1996
8240 VOLATILES (S)				
1,1-Dichloroethene	50	44	88.0	06/14/1996
Benzene	50	48	96.0	06/14/1996
Chlorobenzene	50	44	88.0	06/14/1996
Toluene	50	45	90.0	06/14/1996
Trichloroethene	50	42	84.0	06/14/1996
8240 VOLATILES (S)				
1,1-Dichloroethene	50	44	88.0	06/18/1996
Benzene	50	47	94.0	06/18/1996
Chlorobenzene	50	44	88.0	06/18/1996
Toluene	50	45	90.0	06/18/1996
Trichloroethene	50	44	88.0	06/18/1996
8240 VOLATILES (S)				
1,1-Dichloroethene	50	49	98.0	06/19/1996
Benzene	50	53	106.0	06/19/1996
Chlorobenzene	50	51	102.0	06/19/1996
Toluene	50	52	104.0	06/19/1996
Trichloroethene	50	52	104.0	06/19/1996
OAR TPH-418.1M (S)	53.5	62.7	117.2	06/17/1996
OAR TPH-418.1M (S)	53.5	63.5	118.7	06/17/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT
MATRIX SPIKE/MATRIX SPIKE DUPLICATE

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL

Analyte	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
TCLP - Cadmium, ICP	0.48	ND	0.500	mg/L	96.0	0.48	0.500	mg/L	96.0	0.0
TCLP - Chromium, ICP	0.48	ND	0.500	mg/L	96.0	0.48	0.500	mg/L	96.0	0.0
TCLP - Lead, ICP	0.48	ND	0.500	mg/L	96.0	0.48	0.500	mg/L	96.0	0.0
8240 VOLATILES (S)										
1,1-Dichloroethene	51	ND	50	ug/Kg	102.0	51	50	ug/Kg	102.0	0.0
Benzene	56	ND	50	ug/Kg	112.0	53	50	ug/Kg	106.0	5.5
Trichloroethene	53	ND	50	ug/Kg	106.0	49	50	ug/Kg	98.0	7.7
Toluene	55	ND	50	ug/Kg	110.0	51	50	ug/Kg	102.0	7.5
Chlorobenzene	53	ND	50	ug/Kg	106.0	51	50	ug/Kg	102.0	3.8

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
dil.= Diluted Out

QUALITY CONTROL REPORT
BLANKS

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL
Location: HQL

Analyte	Blank Analysis	MDL	Units	Date Analyzed
TCLP - Cadmium, ICP	ND	0.002	mg/L	06/21/1996
TCLP - Chromium, ICP	ND	0.005	mg/L	06/21/1996
TCLP - Lead, ICP	ND	0.005	mg/L	06/21/1996
8240 VOLATILES (S)				
1,1,1-Trichloroethane	ND	5.0	ug/Kg	06/14/1996
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	06/14/1996
1,1,2-Trichloroethane	ND	5.0	ug/Kg	06/14/1996
1,1-Dichloroethane	ND	5.0	ug/Kg	06/14/1996
1,1-Dichloroethene	ND	5.0	ug/Kg	06/14/1996
1,2-Dichloroethane	ND	5.0	ug/Kg	06/14/1996
1,2-Dichloropropane	ND	5.0	ug/Kg	06/14/1996
2-Butanone	ND	20	ug/Kg	06/14/1996
2-Chloroethylvinyl ether	ND	10	ug/Kg	06/14/1996
2-Hexanone	ND	20	ug/Kg	06/14/1996
4-Methyl-2-Pentanone	ND	20	ug/Kg	06/14/1996
Acetone	ND	20	ug/Kg	06/14/1996
Benzene	ND	5.0	ug/Kg	06/14/1996
Bromodichloromethane	ND	5.0	ug/Kg	06/14/1996
Bromoform	ND	5.0	ug/Kg	06/14/1996
Bromomethane	ND	5.0	ug/Kg	06/14/1996
Carbon Disulfide	ND	5.0	ug/Kg	06/14/1996
Carbon Tetrachloride	ND	5.0	ug/Kg	06/14/1996
Chlorobenzene	ND	5.0	ug/Kg	06/14/1996
Chloroethane	ND	5.0	ug/Kg	06/14/1996
Chloroform	ND	5.0	ug/Kg	06/14/1996
Chloromethane	ND	5.0	ug/Kg	06/14/1996

Advisory Control Limits for Blanks:
Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.
GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT
BLANKS

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL
Location: HQL

Analyte	Blank Analysis	MDL	Units	Date Analyzed
1,2-Dichlorobenzene	ND	5.0	ug/Kg	06/14/1996
1,3-Dichlorobenzene	ND	5.0	ug/Kg	06/14/1996
1,4-Dichlorobenzene	ND	5.0	ug/Kg	06/14/1996
Methylene Chloride	ND	50	ug/Kg	06/14/1996
Dibromochloromethane	ND	5.0	ug/Kg	06/14/1996
Ethylbenzene	ND	5.0	ug/Kg	06/14/1996
Styrene	ND	5.0	ug/Kg	06/14/1996
Tetrachloroethene	ND	5.0	ug/Kg	06/14/1996
Toluene	ND	5.0	ug/Kg	06/14/1996
Trichloroethene	ND	5.0	ug/Kg	06/14/1996
Trichlorofluoromethane	ND	5.0	ug/Kg	06/14/1996
Vinyl Acetate	ND	5.0	ug/Kg	06/14/1996
Vinyl Chloride	ND	5.0	ug/Kg	06/14/1996
m,p-xylene	ND	5.0	ug/Kg	06/14/1996
o-xylene	ND	5.0	ug/Kg	06/14/1996
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	06/14/1996
cis-1,3-Dichlororopene	ND	5.0	ug/Kg	06/14/1996
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	06/14/1996
1,2-Dichloroethane-d4 (Surr.)	99		%	06/14/1996
Toluene-d8 (Surr.)	100		%	06/14/1996
Bromofluorobenzene (Surr.)	100		%	06/14/1996
8240 VOLATILES (S)				
1,1,1-Trichloroethane	ND	5.0	ug/Kg	06/18/1996
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	06/18/1996
1,1,2-Trichloroethane	ND	5.0	ug/Kg	06/18/1996
1,1-Dichloroethane	ND	5.0	ug/Kg	06/18/1996

Advisory Control Limits for Blanks:
Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.
GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT
BLANKS

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL
Location: HQL

Analyte	Blank Analysis	MDL	Units	Date Analyzed
1,1-Dichloroethene	ND	5.0	ug/Kg	06/18/1996
1,2-Dichloroethane	ND	5.0	ug/Kg	06/18/1996
1,2-Dichloropropane	ND	5.0	ug/Kg	06/18/1996
2-Butanone	ND	20	ug/Kg	06/18/1996
2-Chloroethylvinyl ether	ND	10	ug/Kg	06/18/1996
2-Hexanone	ND	20	ug/Kg	06/18/1996
4-Methyl-2-Pentanone	ND	20	ug/Kg	06/18/1996
Acetone	ND	20	ug/Kg	06/18/1996
Benzene	ND	5.0	ug/Kg	06/18/1996
Bromodichloromethane	ND	5.0	ug/Kg	06/18/1996
Bromoform	ND	5.0	ug/Kg	06/18/1996
Bromomethane	ND	5.0	ug/Kg	06/18/1996
Carbon Disulfide	ND	5.0	ug/Kg	06/18/1996
Carbon Tetrachloride	ND	5.0	ug/Kg	06/18/1996
Chlorobenzene	ND	5.0	ug/Kg	06/18/1996
Chloroethane	ND	5.0	ug/Kg	06/18/1996
Chloroform	ND	5.0	ug/Kg	06/18/1996
Chloromethane	ND	5.0	ug/Kg	06/18/1996
1,2-Dichlorobenzene	ND	5.0	ug/Kg	06/18/1996
1,3-Dichlorobenzene	ND	5.0	ug/Kg	06/18/1996
1,4-Dichlorobenzene	ND	5.0	ug/Kg	06/18/1996
Methylene Chloride	ND	50	ug/Kg	06/18/1996
Dibromochloromethane	ND	5.0	ug/Kg	06/18/1996
Ethylbenzene	ND	5.0	ug/Kg	06/18/1996
Styrene	ND	5.0	ug/Kg	06/18/1996
Tetrachloroethene	ND	5.0	ug/Kg	06/18/1996

Advisory Control Limits for Blanks:
Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.
GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT
BLANKS

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL
Location: HQL

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Toluene	ND	5.0	ug/Kg	06/18/1996
Trichloroethene	ND	5.0	ug/Kg	06/18/1996
Trichlorofluoromethane	ND	5.0	ug/Kg	06/18/1996
Vinyl Acetate	ND	5.0	ug/Kg	06/18/1996
Vinyl Chloride	ND	5.0	ug/Kg	06/18/1996
m,p-xylene	ND	5.0	ug/Kg	06/18/1996
o-xylene	ND	5.0	ug/Kg	06/18/1996
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	06/18/1996
cis-1,3-Dichlororopene	ND	5.0	ug/Kg	06/18/1996
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	06/18/1996
1,2-Dichloroethane-d4 (Surr.)	98		%	06/18/1996
Toluene-d8 (Surr.)	100		%	06/18/1996
Bromofluorobenzene (Surr.)	98		%	06/18/1996
8240 VOLATILES (S)				
1,1,1-Trichloroethane	ND	5.0	ug/Kg	06/19/1996
1,1,2,2-Tetrachloroethane	ND	5.0	ug/Kg	06/19/1996
1,1,2-Trichloroethane	ND	5.0	ug/Kg	06/19/1996
1,1-Dichloroethane	ND	5.0	ug/Kg	06/19/1996
1,1-Dichloroethene	ND	5.0	ug/Kg	06/19/1996
1,2-Dichloroethane	ND	5.0	ug/Kg	06/19/1996
1,2-Dichloropropane	ND	5.0	ug/Kg	06/19/1996
2-Butanone	ND	20	ug/Kg	06/19/1996
2-Chloroethylvinyl ether	ND	10	ug/Kg	06/19/1996
2-Hexanone	ND	20	ug/Kg	06/19/1996
4-Methyl-2-Pentanone	ND	20	ug/Kg	06/19/1996
Acetone	ND	20	ug/Kg	06/19/1996

Advisory Control Limits for Blanks:
Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.
GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT
BLANKS

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL
Location: HQL

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Benzene	ND	5.0	ug/Kg	06/19/1996
Bromodichloromethane	ND	5.0	ug/Kg	06/19/1996
Bromoform	ND	5.0	ug/Kg	06/19/1996
Bromomethane	ND	5.0	ug/Kg	06/19/1996
Carbon Disulfide	ND	5.0	ug/Kg	06/19/1996
Carbon Tetrachloride	ND	5.0	ug/Kg	06/19/1996
Chlorobenzene	ND	5.0	ug/Kg	06/19/1996
Chloroethane	ND	5.0	ug/Kg	06/19/1996
Chloroform	ND	5.0	ug/Kg	06/19/1996
Chloromethane	ND	5.0	ug/Kg	06/19/1996
1,2-Dichlorobenzene	ND	5.0	ug/Kg	06/19/1996
1,3-Dichlorobenzene	ND	5.0	ug/Kg	06/19/1996
1,4-Dichlorobenzene	ND	5.0	ug/Kg	06/19/1996
Methylene Chloride	ND	50	ug/Kg	06/19/1996
Dibromochloromethane	ND	5.0	ug/Kg	06/19/1996
Ethylbenzene	ND	5.0	ug/Kg	06/19/1996
Styrene	ND	5.0	ug/Kg	06/19/1996
Tetrachloroethene	ND	5.0	ug/Kg	06/19/1996
Toluene	ND	5.0	ug/Kg	06/19/1996
Trichloroethene	ND	5.0	ug/Kg	06/19/1996
Trichlorofluoromethane	ND	5.0	ug/Kg	06/19/1996
Vinyl Acetate	ND	5.0	ug/Kg	06/19/1996
Vinyl Chloride	ND	5.0	ug/Kg	06/19/1996
m,p-xylene	ND	5.0	ug/Kg	06/19/1996
o-xylene	ND	5.0	ug/Kg	06/19/1996
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	06/19/1996

Advisory Control Limits for Blanks:
Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.
GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT
BLANKS

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL
Location: HQL

Analyte	Blank Analysis	MDL	Units	Date Analyzed
cis-1,3-Dichlororopene	ND	5.0	ug/Kg	06/19/1996
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	06/19/1996
1,2-Dichloroethane-d4 (Surr.)	99		%	06/19/1996
Toluene-d8 (Surr.)	102		%	06/19/1996
Bromofluorobenzene (Surr.)	103		%	06/19/1996
OAR TPH-418.1M (S)	ND	5	mg/Kg	06/17/1996
OAR TPH-418.1M (S)	ND	5	mg/Kg	06/20/1996

Advisory Control Limits for Blanks:
Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.
GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT
DUPLICATES

De Minimis, Inc.
34 NW 1st Avenue
Suite 101
Portland, OR 97209

Date: 06/24/1996

NET Job Number: 96.01719

Contact: Mr. Dale Harr
Project: HQL

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
OAR TPH-HCID (S)						
Gasoline	ND	ND	mg/Kg		06/07/1996	
Diesel	ND	ND	mg/Kg		06/07/1996	
Heavy Oil	ND	ND	mg/Kg		06/07/1996	
OAR TPH-HCID (S)						
Gasoline	Gas	Gas	mg/Kg		06/14/1996	
Diesel	Diesel	Diesel	mg/Kg		06/14/1996	
Heavy Oil	ND	ND	mg/Kg		06/14/1996	
OAR TPH-418.1M (S)	24	81	mg/Kg	108.6	06/17/1996	R
OAR TPH-418.1M (S)	ND	ND	mg/Kg		06/20/1996	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A	This sample does not have a typical gasoline pattern.
B1	This sample does not have a typical diesel pattern.
B	The blank exhibited a positive result greater than the reporting limit for this compound.
C	The sample appears to contain a lighter hydrocarbon than gasoline.
D	The sample appears to extend to a heavier hydrocarbon range than gasoline.
E	The sample appears to extend to a lighter hydrocarbon range than diesel.
F	The sample appears to extend to a heavier hydrocarbon range than diesel.
G	The positive result for gasoline is due to single component comtamination.
H	The gasoline elution pattern for the sample is not typical.
I	The oil pattern for this sample is not typical.
J	The result for this compound is an estimated concentration.
L	The LCS recovery exceeded control limits. See the LCS page of this report.
M	MS and/or MSD percent recovery exceeds control limits.
MR	The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.
P	A post digestion spike was analyzed, and recoveries are within control limits.
Q	Detection limits elevated due to sample matrix.
R	The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.
SR	Surrogate recovery outside control limits. See the surrogate page of the report.
W	The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.
X	Sample was analyzed outside recommended holding times.
Y	The result for this parameter was greater than the TCLP regulatory limit.
Z	The pattern seen for the parameter being analyzed is not typical.

Re-01719

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY De Minimis Inc. (DMI)
ADDRESS 34 NW First Ave., Ste. 101, Portland OR 97209
PHONE 295-4074 FAX 295-0112
PROJECT NAME/LOCATION HQL
PROJECT NUMBER
PROJECT MANAGER

REPORT TO: Dale L. Haar
INVOICE TO: DMI
P.O. NO.
NET QUOTE NO.

SAMPLED BY Dale L. Haar (DLH) (PRINT NAME) SIGNATURE
(PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: TPH-HCID OR	418.1								
6-13-96	0936	S-1	S	X						3	X	X							
↓	1659	S-2	S	X						3	X	X							
↓	1721	S-3	S	X						3	X	X							

ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ___

Is this work being conducted for regulatory enforcement action? Yes ___ No ✓

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ✓ Drinking Water ___ Other ___ None ___

OR

COMMENTS

RUSH - Call with hits. Archive additional samples.

418.1 requested 6/14 Rush per Dale

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO N/A
COC SEALS PRESENT AND INTACT? YES / NO N/A
VOLATILES FREE OF HEADSPACE? YES / NO N/A
TEMPERATURE UPON RECEIPT: 4°C
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS
DATE 6-13-96

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
	6-13-96	1815			6/13/96	18:15	Cindy Day

METHOD OF SHIPMENT

REMARKS:

PT [illegible] GINAL PT 2 [illegible] PROJE [illegible] IAGER [illegible] OW F [illegible] ISTOM [illegible] Y - PIN

96_0419

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

CHAIN OF CUSTODY RECORD

COMPANY De Minimis Inc. (DMI)
ADDRESS 34 NW First Ave, Ste. 101, Portland OR 97209
PHONE 295-4074 FAX 295-0112
PROJECT NAME/LOCATION HQL
PROJECT NUMBER
PROJECT MANAGER Dale L. Haar

REPORT TO: Dale L. Haar
INVOICE TO: DMI
P.O. NO.
NET QUOTE NO.

SAMPLED BY Dale L. Haar (DLH) (PRINT NAME) — Dale L Haar SIGNATURE
(PRINT NAME) — SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: TPH-418.1 Mod.								
6-17-96	0814	S-4	S	X						3	X								
↓	0822	S-5	S	X						3	X								

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ___

Is this work being conducted for regulatory enforcement action? Yes ___ No ✓

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ✓ Drinking Water ___ Other ___ None ___

OR

COMMENTS

RUSH. Archive other two sample jars for possible waste oil analyses.

CONDITION OF SAMPLE: BOTTLES INTACT? ~~YES~~ / NO
FIELD FILTERED? YES / NO N/A.
COC SEALS PRESENT AND INTACT? YES / NO N/A
VOLATILES FREE OF HEADSPACE? YES / NO N/A
TEMPERATURE UPON RECEIPT: 4°C
Bottles supplied by NET? ~~YES~~ / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS Dale L Haar DATE 6-17-96

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
Dale L Haar	6-17-96	0921			6/17/96	9:21	Cindy Day

METHOD OF SHIPMENT

REMARKS:

ORIGINAL - PINK - PROJECT MANAGER - YELLOW - CUSTODY - PINK

APPENDIX E

SOIL MATRIX SCORE SHEET

and

CHECKLIST

MATRIX CHECKLIST

Q Lube #1068
10227 N.E. Halsey Street, Portland, Oregon 97220
DEQ UST Cleanup File #26-96-0364

__X__ 1. The release of petroleum has been reported to the Department of Environmental Quality.

__X__ 2. The Matrix Score Sheet has been completed for this site, unless the site is cleaned up to the most stringent cleanup level.

__X__ 3. The required hydrocarbon identification test (TPH-HCID) has been performed, and, if detectable levels were found, the appropriate analytical method or methods have been used to measure the levels of contamination.

__X__ 4. A sketch has been made of this site which clearly shows:

- __X__ a. The location of all buildings and other key features, both man-made and natural;
- __X__ b. The names of adjacent streets and properties;
- __X__ c. The location of all excavations including those that were for the removal of tanks and associated piping as well as those that were strictly for the removal of contaminated soils;
- __X__ d. The location of all product storage tanks, lines, and dispensers, including those that were decommissioned as well as those that remain on the site; and
- __X__ e. All soil and water sample locations.

__N/A__ 5. If any contaminated soil in excess of matrix limits has been left on site, the reason for leaving this soil has been explained and the requirements of 355 (4) have been met.

__N/A__ 6. If water was present in the tank pit, the Department was notified, the water was pumped from the pit, and the requirements of 340 (4) have been met.

__X__ 7. All soil and/or water samples have been collected, coded, stored, and shipped as specified in the rules, and proper chain-of-custody forms have been filled out.

__X__ 8. If a release from a waste oil tank was discovered, at least one sample has been analyzed by the methods specified in 350 (5).

__NA__ 9. If a tank was decommissioned in place, the Department gave prior approval for a site-specific sampling plan.

__X__ 10. A report has been prepared which includes a detailed description of everything that was observed and performed at the site, contains all of the information required by the rules, and presents findings and recommendations which are consistent with Departmental regulations.

MATRIX SCORE SHEET

Q Lube #1068
10227 N.E. Halsey Street, Portland, Oregon 97220

EVALUATION PARAMETERS		SCORE
1) DEPTH TO GROUNDWATER		
< 25 feet	(10)	**10**
25 - 50 feet	(7)	
51 - 100 feet	(4)	
> 100 feet	(1)	

Depth to the uppermost groundwater in this area is less than 25 feet deep, as per groundwater levels reported in the vicinity of the subject site.

2) MEAN ANNUAL PRECIPITATION		
> 45 inches	(10)	
20 - 45 inches	(5)	**5**
< 20 inches	(1)	

The National Weather Service reported the nearest weather station is located at the Portland, Oregon airport. The official Mean Annual Precipitation for Portland is 36.30 inches per year, as measured from 1961 to 1990.

3) NATIVE SOIL TYPE		
Coarse sands, gravels	(10)	
Silts, fine sands	(5)	**5**
Clays	(1)	

Native soils observed during excavation activities were silts.

4) SENSITIVITY OF UPPERMOST AQUIFER		
Sole source	(10)	**10**
Current potable	(7)	
Future potable	(4)	
Non-potable	(1)	

MATRIX SCORE SHEET

The sensitivity of the uppermost aquifer is undetermined and, as per OAR 340-122-330, is scored with a ten. However, the site would most likely score current potable (7) or future potable (4) since the City of Portland supplies drinking water to the surrounding area.

5) POTENTIAL RECEPTORS

	PEOPLE AT RISK			
DISTANCE TO NEAREST WELL	Many	Medium	Few	
Near	(10)	(10)	(5)	**10**
Medium	(10)	(5)	(1)	
Far	(5)	(1)	(1)	

The distance to the nearest well is undetermined and, therefore, is assumed to be less than one-half mile (Near).

The number of people at risk served by drinking water wells within two miles of the subject property is undetermined and, therefore, is assumed to be greater than 3,000 people (Many). However, the site is located in east Portland and the City of Portland supplies municipal drinking water for this area.

As per OAR 340-122-330, potential receptors are considered Many and Near, and the site is scored with a ten.

TOTAL SCORE	**40**
CLEANUP STANDARDS	**LEVEL 2**

NUMERIC SOIL CLEANUP STANDARDS

	TPH (Gasoline)	TPH (Diesel)
Level 1: > 40 points	**40 ppm**	**100 ppm**
Level 2: 25 - 40 points	**80 ppm**	**500 ppm**
Level 3: < 25 points	**130 ppm**	**1000 ppm**