MOST WESTERN LAUNDRY SITE

Final Copy
Site Mgr. Guy Barrett
Site # 1117
SIC # J1AEB

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:	AGREED ORDER
Most Western Limited, Inc.	No. DE 4074

TO: Mr. William F. Bonney
c/o Mr. Jon Parker
Parker, Johnson & Parker, P.S.
P.O. Box 700
Hoquiam, WA 98550-0700

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I. INTRODUCTION

The mutual objective of the State of Washington, Department of Ecology (Ecology) and Most Western Limited under this Agreed Order (Order) is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Order requires Most Western Limited to grant Ecology access to the property located at 16th and B Street, Hoquiam, WA, (Most Western Limited Property) for the purposes of investigating and remediating releases of hazardous substances on the property. The Order also requires Most Western Limited to provide Ecology with information. Ecology believes the actions required by this Order are in the public interest.

II. JURISDICTION

This Agreed Order is issued pursuant to the authority of the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

III. PARTIES BOUND

This Agreed Order shall apply to and be binding upon the Parties to this Order, their successors and assigns. The undersigned representative of each Party hereby certifies that he or she is fully authorized to enter into this Order and to execute and legally bind such Party to comply with the Order. *See* Exhibit H. Most Western Limited agrees to undertake all actions required by the terms and conditions of this Order. No change in ownership or corporate status shall alter Most Western Limited's responsibility under this Order. Additionally, Most Western Limited agrees not to take action to dissolve until Most Western Limited has completed the requirements of the Agreed Order, as determined by Ecology. This means Most Western Limited agrees to renew its corporate status with the Secretary of State as necessary. In the event that Most Western Limited does dissolve before it has completed all of the requirements of the

Agreed Order, as determined by Ecology, Ecology reserves all rights and actions it may have under Washington law.

IV. DEFINITIONS

Unless otherwise specified herein, the definitions set forth in Chapter 70.105D RCW and Chapter 173-340 WAC shall control the meanings of the terms used in this Order.

A. Site: The Site is referred to as the Most Western Laundry Site and is generally located at 16th and B Streets, Hoquiam, WA. The Site is defined by the extent of contamination caused by the release of hazardous substances at the Site. Based upon factors currently known to Ecology, the Site is more particularly described in Exhibit A to this Order, which includes a detailed Site diagram. The Site constitutes a Facility under RCW 70.105D.020(4).

B. Parties: Refers to the State of Washington, Department of Ecology (Ecology) and Most Western Limited.

C. Potentially Liable Person (PLP): Refers to Most Western Limited.

D. Agreed Order or Order: Refers to this Order and each of the exhibits to the Order. All exhibits are integral and enforceable parts of this Order. The terms "Agreed Order" or "Order" shall include all exhibits to the Order.

E. Most Western Limited Property: Refers to the property located at 16th and B Streets, Hoquiam, WA, Grays Harbor County Assessor's Parcel No. 051407800200, and owned by Most Western Laundry & Dry Cleaners, otherwise known as Most Western Limited, on the effective date of this Order.

V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by Most Western Limited:

A. The Grays Harbor County Assessors Office lists Most Western Laundry & Dry Cleaners, otherwise known as Most Western Limited, as the owner of the Most Western Limited Property, as defined above and as described in the attached legal description, Exhibit B.

B. Most Western Limited was incorporated in 1959 under the name Hoquiam Steam Laundry & Dry Cleaning Co., Inc. Hoquiam Steam Laundry & Dry Cleaning Co., Inc. amended its name to Hoquiam Steam Laundry & Dry Cleaning, Inc. on February 7, 1959. In 1964 the name of the corporation was changed again to Most Western Laundry & Dry Cleaners, Inc. In 1990 the company name was amended to Most Western Laundry, Inc. and the company became known as Most Western Limited in 1994. For ease of reference, the company will be referred to as Most Western Limited throughout the Order.

C. Most Western Limited is an active Washington corporation and Willam F. Bonney is the registered agent.

D. Most Western Limited operated a dry cleaning business located at 16th and B Streets, Hoquiam, WA, and began its industrial dry cleaning operation and generation of waste tetrachloroethylene, otherwise referred to as perchloroethylene or perc, no later than 1978. The dry cleaning operation and generation of perc ceased around 1984. However laundering services were still available after 1984.

E. In response to a complaint, Ecology inspected the Most Western Limited Property on September 28, 1984. The inspection was conducted to determine whether Most Western Limited was in compliance with Chapter 173-303 WAC, the Washington State Dangerous Waste Regulations. During the inspection, Ecology found extremely high levels of perc in dry cleaning sludges that had been placed on the soil and in unlabeled containers. Stains in the area suggested a history of spills and contamination of the storm sewer and ground water. Based on this inspection, Ecology issued Order No. DE 84-622, requiring compliance with Chapter 173-303 WAC, on October 12, 1984.

F. Following issuance of Order No. DE 84-622, Ecology received another complaint and conducted a follow up inspection. During this inspection Ecology observed violations of Chapters 90.48 and 70.105 RCW. Ecology issued Penalty No. DE 84-687. Most Western Limited appealed the penalty to the Pollution Control Hearings Board. The appeal was dismissed

on August 30, 1985, based on PCHB No. 85-33 Stipulation and Agreed Order of Dismissal. Most Western Limited paid Ecology $5,000 as part of the settlement agreement.

G. During Ecology's investigations, including interviews with employees and Mike Bonney, Most Western Limited's former owner/operator, Ecology found that Most Western Limited had generated an average of 72 pounds of waste perc sludge per month over a six-year period. Prior to Ecology's September 1984 inspection, the usual mode of disposal was to discard this waste into the Hoquiam City Landfill, down the storm drain, or onto the ground.

H. On May 22, 1985, Ecology issued Order No. DE 85-370, which required Most Western Limited to investigate and define existing contamination at the dry cleaning facility.

I. Most Western Limited and Ecology entered into Consent Order No. DE 86-S149 on April 24, 1987. Under the Consent Order, the parties agreed that Most Western Limited's obligations created by two previous orders would be satisfied upon completion of the activities in the Consent Order. However, the Consent Order was not entered in a court and did not settle Most Western Limited's environmental liability for the Site. Generally, the Consent Order required Most Western Limited to complete a sampling plan and schedule, and implement the plan within ten (10) days of Ecology's approval of the plan. Most Western Limited was also required to submit analytical results from the sampling and recommendations for remedial action to Ecology. Upon Ecology's approval of the recommendations, Most Western Limited was required to implement the recommended corrective action. Consent Order No. DE 86-S149 is attached as Exhibit E. Although Most Western Limited completed some investigative and remedial work on the Site, as described below, Most Western Limited never fully complied with the Consent Order.

J. Most Western Limited retained Howard Edde, Inc. to investigate the contamination on the Most Western Limited Property and to recommend remedial action alternatives. During Howard Edde's investigation, Ecology took split soil samples and found elevated concentrations of perc, trichloroethylene (TCE), and vinyl chloride (VC). Howard Edde,

Inc. submitted its sampling report and remedial recommendations to Ecology in October 1987. This report is attached as Exhibit D.

K. On April 4, 1988, Ecology sent Most Western Limited a notice outlining remedial action requirements. Ecology required Most Western Limited to clean up soils in the vicinity of BHI, BH2, and BH12 to background levels; clean up soils in the vicinity of BH10 and BH11 to 5,000ug/kg of perc; install groundwater monitoring wells near BH1, BH6, and BH10; and conduct further sampling. *See* Exhibit F.

L. In June 1988, Most Western Limited conducted further sampling in the dumpster area on the Most Western Limited Property. In July 1988, Most Western Limited contracted with Crowley Environmental Services, Inc. to remove contaminated soils. Most Western Limited excavated contaminated soil from an area associated with test borings BH10 and BH11. Excavation continued until structural components of the building prevented further lateral excavation and groundwater prevented further vertical excavation. Contaminated soils from the excavation were transported to Chem Security Facility in Arlington, Oregon. Confirmation samples taken at that time indicated the continued presence of perc at the following levels: 3,600,000 ug/kg (microgram per kilogram) in the pit's west wall; 820,000 ug/kg in the bottom; 200,000 ug/kg in the south wall; 33,000 ug/kg in the north wall; and 19,000 ug/kg in the east wall.

M. Three monitoring wells were subsequently installed at locations associated with test borings BH1, BH6, and BH10. These wells extend approximately seven feet deep and were never sampled or analyzed according to Ecology records.

N. In December 1988, Ecology and Environment, Inc. completed a Screening Site Inspection on the Site under EPA Contract 68-01-7347 and Technical Directive Document No. F10-8808-19. The Screening Site Inspection report concluded that contamination remained on the Site. The report stated that the vertical extent of contamination at the Site was unknown because test boreholes were only sampled to a depth of five feet. Further, previous sampling efforts were inadequate to determine the extent of groundwater contamination. The report

recommended further groundwater sampling; additional soil sampling; removal of contaminated soils; and securing the Site to lessen the potential public health threats. *See* Exhibit F.

O. Most Western Limited's laundry facility was destroyed in a fire in July 1994. No laundry business has been conducted on the Most Western Limited Property since the fire.

P. Ecology completed a Site Hazard Assessment (SHA) for the Site, and by letter dated August 22, 1991, informed Most Western Limited that the SHA resulted in a ranking of 1 for the Site. Ranking ranges from 1 to 5, with 1 representing the highest relative risk and 5 the lowest relative risk.

Q. The release of perc to soil and groundwater at the Site continues to constitute a threat to human health and the environment via direct contact with contaminated soils or groundwater. The release of perc at the Site also constitutes a threat to human health and the environment via migration of contamination in groundwater to the nearby Hoquiam River.

R. Most Western Limited asserts that it does not have sufficient financial assets or insurance policies that would provide money to Most Western Limited to enable Most Western Limited to engage in remedial actions at the Site at this time. *See* exhibit G.

VI. ECOLOGY DETERMINATIONS

A. Most Western Limited is an "owner or operator" as defined in RCW 70.105D.020(12), of a "facility" as defined in RCW 70.105D.020(4) because it is the owner of property where there has been a release of tetrachloroethylene (perc), trichloroethylene (TCE), and vinyl chloride (VC).

B. Based upon all factors known to Ecology, a "release" or "threatened release" of "hazardous substance(s)" as defined in RCW 70.105D.020(20) and RCW 70.105D.020(7), respectively, has occurred at the Site.

C. Based upon credible evidence, Ecology issued a potentially liable person status letter to Most Western Laundry and William Bonney dated November 22, 2004, pursuant to RCW 70.105D.040, -.020(16) and WAC 173-340-500. After providing for notice and opportunity for comment, reviewing any comments submitted, and concluding that credible

evidence supported a finding of potential liability, Ecology issued a determination that Most Western Laundry is a PLP under RCW 70.105D.040. Ecology notified Most Western Laundry of this determination by letter dated April 20, 2005. On February 24, 2006, Ecology sent a letter to Most Western Limited, clarifying that Most Western Limited, as the same entity as Most Western Laundry, had been named a PLP. Based on the information currently available to Ecology, Ecology determined that William Bonney is not a PLP at this time.

D. Pursuant to RCW 70.105D.030(1) and -.050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

E. Further, based on Ecology's investigations at this time, it is unclear whether Most Western Limited is financially able to perform remedial actions on the Site. However, Ecology has determined that remedial action is in the public interest on the Site based on the Site's threat to human health and the environment.

VII. WORK TO BE PERFORMED

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that Most Western Limited take the following remedial actions at the Site and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein:

A. Access

Most Western Limited shall provide access to Ecology, any authorized representative of Ecology, and any party or entity directed or authorized by Ecology, to all property at the Site that Most Western Limited either owns, controls, or has access rights to at all reasonable times for the purpose of investigating and remediating the release of hazardous substances at the Site. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by Most Western Limited unless an emergency prevents such

notice. All persons who access the Site pursuant to this paragraph shall comply with the approved health and safety plan, if any. Ecology employees and their representatives shall not be required to sign any release or waiver as a condition of Site property access.

B. Documentation

Most Western Limited shall provide Ecology with a copy of Most Western Limited's tax returns for 2003, 2004, and 2005 within sixty (60) days of the effective date of this Order. Further, Most Western Limited shall provide Ecology with any further information Ecology may request within thirty (30) days of receipt of Ecology's request.

If Most Western Limited is not able to provide a copy of its 2003, 2004, or 2005 tax returns within sixty (60) days of the effective date of this Order, Most Western Limited shall provide a written explanation to Ecology within sixty (60) days of the effective date of this Order explaining why it is unable to provide the tax returns. If Most Western Limited is not able to provide additional information Ecology requests within thirty (30) days of receipt of Ecology's request, Most Western Limited shall provide a written explanation to Ecology within thirty (30) days of receipt of Ecology's request and describe why it is unable to provide the requested information.

If Most Western Limited requires an extension of time to produce the tax returns or additional requested information, Most Western Limited shall contact the Ecology site manager in writing within sixty (60) days of the effective date of this Order, or within thirty (30) days of receipt of Ecology's request for further information, and indicate what records Most Western Limited needs more time to provide, why an extension is necessary, and the length of extension required. Ecology shall grant or deny the extension within thirty (30) days of receiving the request.

VIII. TERMS AND CONDITIONS OF ORDER

A. Public Notices

RCW 70.105D.030(2)(a) requires that, at a minimum, this Order be subject to concurrent public notice. Ecology shall be responsible for providing such public notice and reserves the

right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to Ecology that the Order is inadequate or improper in any respect.

B. Remedial Action Costs

Most Western Limited asserts that it is unable to pay remedial action costs at this time. *See* Exhibit G. Ecology reserves the right to recover from Most Western Limited all remedial action costs Ecology incurs during Site investigation and remediation. These costs shall include work performed by Ecology or its contractors for, or on, the Site under Chapter 70.105D RCW, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of the Order. To the extent that Most Western Limited has financial assets now or in the future, including insurance claims, pursuant to this Order and consistent with WAC 173-340-550(2), within ninety (90) days of receipt of Ecology's written request for reimbursement, Most Western Limited shall pay the required amount. Ecology's request for reimbursement shall include an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general description statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly. Pursuant to RCW 70.105D.055, Ecology also has authority to recover unreimbursed remedial action costs by filing a lien against real property subject to the remedial actions.

C. Implementation of Remedial Action

Except where necessary to abate an emergency situation, Most Western Limited shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.

D. Designated Project Coordinator

The project coordinator for Ecology is:

Guy Barrett, Site Manager
Department of Ecology
Toxics Cleanup Program
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775
(360) 407-7115

The project coordinator for Most Western Limited is:

William F. Bonney
300 Lawrence Drive
Hoquiam, WA 98550

The Ecology project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and Most Western Limited, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through the project coordinator(s).

Ecology and Most Western Limited may change their respective project coordinator, but must provide ten (10) days advance written notification of the change to the other party.

E. Public Participation

A public participation plan is required for this Site. Ecology has developed a public participation plan in conjunction with Most Western Limited, which is included as Exhibit C. Exhibit C is incorporated by reference and is an integral and enforceable part of this Order.

Ecology shall maintain the responsibility for public participation at the Site. However, Most Western Limited shall cooperate with Ecology, and shall:

1. Notify Ecology's project coordinator prior to any of the following: the issuance of all press releases; distribution of fact sheets; performance of other outreach activities; meetings with the interested public and/or local governments. Likewise, Ecology shall notify Most Western Limited prior to the issuance of all press releases and fact sheets, and before meetings with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by Most Western Limited that do not receive prior Ecology approval,

Most Western Limited shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology;

2. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions, or as a presenter;

3. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

a. Hoquiam City Hall
609 – 8th Street
Hoquiam, WA 98550
(360) 532-5700

b. Hoquiam Timberland Library
420 – 7th Street
Hoquiam, WA 98550
(360) 532-1710

c. Ecology's Southwest Regional Office
300 Desmond Drive
Lacey, WA 98503
(360) 407-6365

At a minimum, copies of all public notices, fact sheets, and press releases; all quality assured monitoring data; remedial action plans and reports; supplemental remedial planning documents; and all other similar documents relating to performance of the remedial action required by this Order shall be promptly placed in these repositories.

F. Retention of Records

During the pendency of this Order and for ten (10) years from the date of completion of work performed pursuant to this Order, Most Western Limited shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order. Upon request of Ecology, Most Western Limited shall make all records available to Ecology and allow access for review within a reasonable time.

G. Resolution of Disputes

1. In the event a dispute arises as to an approval, disapproval, proposed change, or other decision or action by Ecology's project coordinator, the Parties shall utilize the dispute resolution procedure set forth below.

a. Upon receipt of the Ecology project coordinator's decision, Most Western Limited has fourteen (14) days within which to notify Ecology's project coordinator of its objection to the decision.

b. The Parties' project coordinators shall then confer in an effort to resolve the dispute. If the project coordinators cannot resolve the dispute within fourteen (14) days, Ecology's project coordinator shall issue a written decision.

c. Most Western Limited may then request Ecology management review of the decision. This request shall be submitted in writing to the Southwest Region Toxics Cleanup Section Manager within seven (7) days of receipt of Ecology's project coordinator's decision.

d. The Section Manager shall conduct a review of the dispute and shall endeavor to issue a written decision regarding the dispute within sixty (60) days of Most Western Limited's request for review. The Section Manager's decision shall be Ecology's final decision on the disputed matter.

2. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used.

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order.

H. Amendment of Order

This Order may be formally amended only by the written consent of both Ecology and Most Western Limited. Most Western Limited shall submit a written request for amendment to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request for amendment is received. If the amendment to the Order represents a substantial change, Ecology will provide additional public notice and

opportunity to comment. If Ecology does not agree to a proposed amendment, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.G of this Order.

I. Endangerment

Nothing in this Order shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

J. Reservation of Rights/No Settlement

This Order is not a settlement under Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any Ecology rights or authority. Ecology will not, however, bring an action against Most Western Limited to recover remedial action costs paid to, and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against Most Western Limited regarding remedial actions required by this Order, provided Most Western Limited complies with this Order.

Ecology nevertheless reserves its rights under Chapter 70.105D RCW, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site. Further, as noted above in section III. of this Order, in the event that Most Western Laundry dissolves before it has completed all of the requirements of the Agreed Order, as determined by Ecology, Ecology reserves all rights and actions it may have under Washington law. Finally, Most Western Limited reserves all rights and defenses it may have to an enforcement action by Ecology.

K. Transfer of Interest in Property

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by Most Western Limited without provision for

continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to Most Western Limited's transfer of any interest in all or any portion of the Site, and during the effective period of this Order, Most Western Limited shall serve a copy of this Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, Most Western Limited shall notify Ecology of said transfer. Upon transfer of any interest, Most Western Limited shall restrict uses and activities to those consistent with this Order and notify all transferees of the restrictions on the use of the property.

L. Restrictive Covenants

If Ecology determines that a Restrictive Covenant is necessary at the Site pursuant to WAC 173-340-440(4), Most Western Limited agrees to record an Ecology approved Restrictive Covenant on the Most Western Limited Property with the office of the Grays Harbor County Auditor within ten (10) days of Ecology's written request to record a Restrictive Covenant. Most Western Limited shall not file a Restrictive Covenant absent Ecology's approval of the Restrictive Covenant. The Restrictive Covenant shall restrict future uses of the Most Western Limited Property. Most Western Limited will provide Ecology with a copy of the recorded Restrictive Covenant within thirty (30) days of the recording date.

M. Periodic Review

As remedial action, including ground water monitoring, continues at the Site, Most Western Limited agrees to provide access to Ecology, any authorized representative of Ecology, and any party or entity directed or authorized by Ecology, to all property at the Site that Most Western Limited either owns, controls, or has access rights to at all reasonable times for the purpose of reviewing the progress of remedial action at the Site. At least every five (5) years after the initiation of cleanup action at the Site the Parties shall meet to discuss the status of the Site and the need, if any, for further remedial action at the Site. Ecology reserves the right to

require further remedial action at the Site under appropriate circumstances. This provision shall remain in effect for the duration of this Order.

N. Indemnification

Most Western Limited asserts that it does not have financial assets at this time. *See* Exhibit G. To the extent Most Western Limited has assets now or in the future, Most Western Limited agrees to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action for death or injuries to persons or for loss or damage to property arising from or on account of acts or omissions of Most Western Limited, its officers, employees, agents, or contractors in entering into and implementing this Order. However, Most Western Limited shall not indemnify the State of Washington nor save nor hold its employees and agents harmless from any claims or causes of action arising out of the negligent acts or omissions of the State of Washington, or the employees or agents of the State, in implementing the activities pursuant to this Order.

IX. SATISFACTION OF ORDER

The provisions of this Order shall be deemed satisfied upon Most Western Limited's receipt of written notification from Ecology that Most Western Limited has completed the remedial activity required by this Order, as amended by any modifications, and that Most Western Limited has complied with all other provisions of this Agreed Order.

X. ENFORCEMENT

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

A. The Attorney General may bring an action to enforce this Order in a state or federal court.

B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for remedial actions and orders related to the Site.

C. In the event Most Western Limited refuses, without sufficient cause, to comply with any term of this Order, Most Western Limited will be liable for:

1. Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply; and

2. Civil penalties of up to $25,000 per day for each day it refuses to comply.

D. ~~This Order is not appealable to the Washington Pollution Control Hearings Board.~~ This Order may be reviewed only as provided under RCW 70.105D.060.

Effective date of this Order: February 7th, 2007

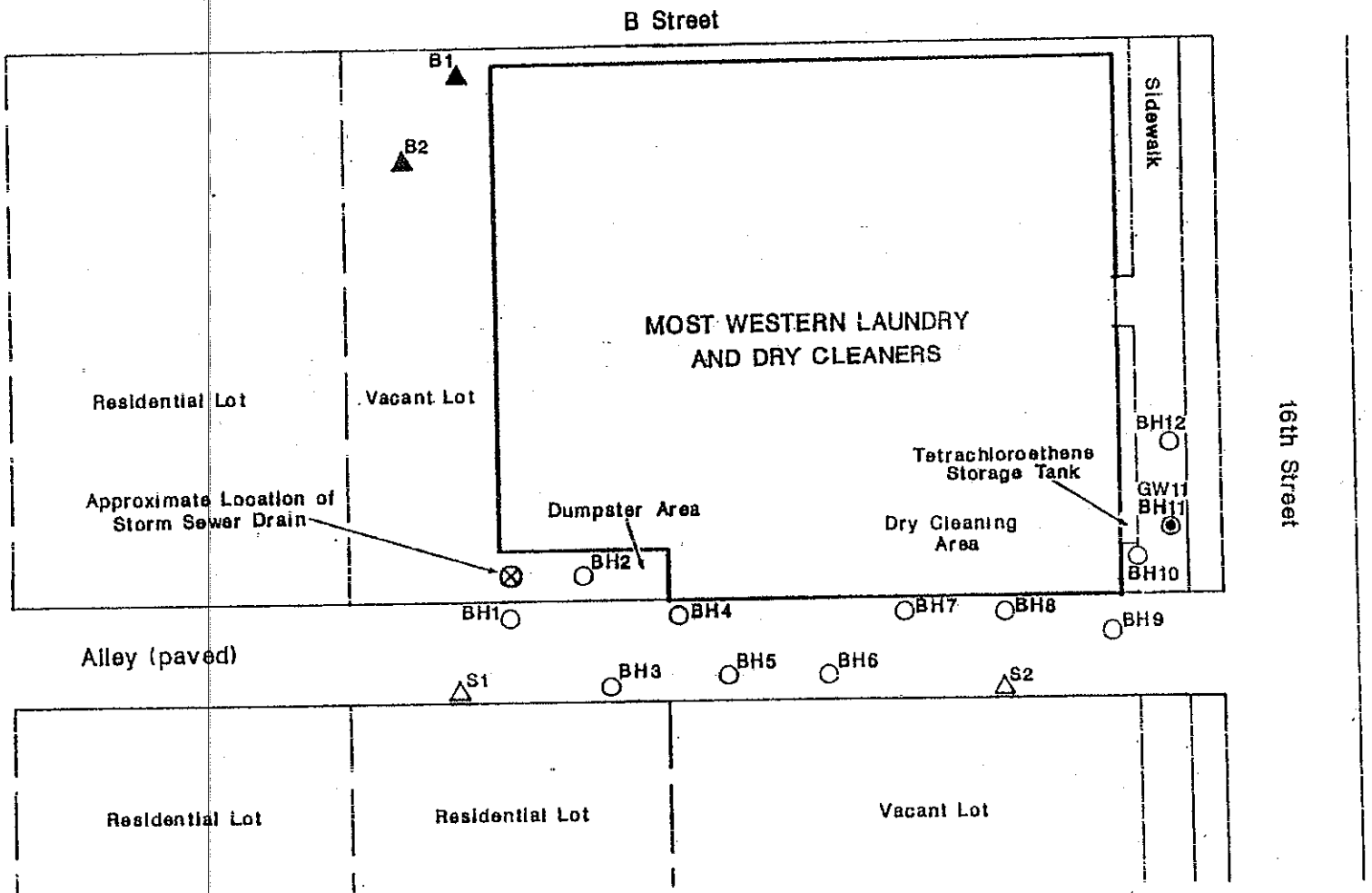
MOST WESTERN LIMITED

William F. Bonney
Registered Agent
Most Western Limited

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Rebecca S. Lawson, P.E.
Regional Section Manager
Toxics Cleanup Program
Southwest Regional Office

EXHIBIT A
Site Diagram



LEGEND

- BH1 — Borehole sample
- S1 — Surface soil sample
- GW11 — Groundwater sample
- B1 — Background sample

Note: Sampling conducted by Howard Edde, Inc., August, 1987

ecology & environment, Inc.	
Job: F10-8808-19	Waste Site: WA 0596
Drawn by: B.T.	Date: Nov. 29, 1988

FIGURE 2
SITE MAP WITH SAMPLE LOCATIONS
MOST WESTERN LAUNDRY AND DRY CLEANERS
Hoquiam, WA

EXHIBIT B
Legal Description

Grays Harbor County GIS - Parcel Search

Report

Parcel Number:	051407800200
Owner Name:	MOST WESTERN LAUNDRY & DRY CLEAN
Mailing Address:	16645 158TH PL SE
City:	RENTON
State:	WA
ZIP Code:	98058
Situs Address:	00000 16TH & B ST
Legal Description #1:	ED CAMPBELLS LOTS 2-4 INC BLK 78
Legal Description #2:	
Township:	17
Range:	10
Section:	12
Land Value:	34500
Building Value:	0
Total Assessed Value:	34500

close map photo help

EXHIBIT C
Public Participation Plan

Template: Brief Public Participation Plan

January 5, 2005

Most Western Laundry Site Overview

Most Western Laundry, also known as Most Western Limited is located at 16th and B Streets, Hoquiam, WA. The site is approximately 15,000 square feet in size and was purchased by Most Western Laundry and Dry Cleaners, Inc. in 1964. For more information about the site's history and contamination, please refer to the Most Western Laundry Fact Sheet (Ecology publication #04-09-67) and the Agreed Order for a Remedial Investigation/Feasibility Study.

What is a Public Participation Plan?

Public participation plans are an important component of Washington's Model Toxics Control Act (MTCA) and RCW 70 15D *et seq*. Public participation plans summarize activities designed to give the public meaningful opportunities to learn about and provide input on cleanup decisions. Plans may be simple or complex depending on the human health and environmental risks posed by the site and other factors.

Ecology and Most Western Laundry welcome public comment on this plan. This plan may be updated once the Remedial Investigation/Feasibility Study is complete and more is known about contamination at the site.

Public Participation Grants Available

Grants from Ecology's Solid Waste and Financial Assistance Program may be available to groups of residents, neighborhood committees, etc. living near the Most Western Laundry site. These funds may be used to provide additional public involvement, to receive technical assistance, and/or enhance the public's understanding of the cleanup. For more information, contact Kathy Seel at (360) 407-6061 or ksee461@ecy.wa.gov or go to Ecology's website at http://www.ecy.wa.gov/programs/swfa/grants.html.

Public Participation Tools to Be Used

Ecology and/or Most Western Laundry will use a variety of tools to involve the public in the cleanup of the Most Western Laundry site. The tools to be used are described below. This list of tools is subject to modification as more is learned about the site. Any substantial changes to this plan will be subject to public review and comment.

Formal Public Comment Period: Written public comment will be the primary tool used to get public input on key decisions and actions related to the Most Western Laundry site cleanup. The public will be invited to comment at specific points during the process and will have at least 30 days to provide comment. Each comment period will be extended to accommodate state or federal holidays.

Responsiveness Summary: After every public comment period, Ecology will review any and all comments received and may respond to comments in a written responsiveness summary. The summary would then be made available to the public at the information repositories listed below.

Information Repositories: Documents and other printed materials will be made available to the public at the local library and at least one other convenient location near the Most Western Laundry site. Printed materials will be placed at the repositories listed below during comment periods and will remain there for the duration of the cleanup process. Ecology also can make copies of documents upon request for a small fee.

Phone: (360) 407-626
Email: mdue461@ecy.wa.gov

EXHIBIT D

1987 Investigation of Contamination and Recommendations for Remedial Action

INVESTIGATION

OF

CONTAMINATION

AND

RECOMMENDATIONS

FOR

REMEDIAL ACTION

AT:

MOST WESTERN LAUNDRY & DRY CLEANERS
HOQUIAM, WA.

SUBMITTED TO:
WASHINGTON DEPARTMENT OF ECOLOGY
OLYMPIA, WA.

BY:

Howard Edde, Inc.
Consulting Engineers
15436 N.E. Bellevue-Redmond Road • Suite 201
Redmond, Washington 98052 • (206) 643-0900

OCTOBER, 1987

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SUMMARY

The Washington State Department of Ecology (DOE) requires that Most Western Laundry and Dry Cleaners, Inc. (The Laundry) conduct an investigation of contamination on their plant site in Hoquiam, Washington and prepare recommendations for remedial action. Howard Edde, Inc. Consulting Engineers were retained by The Laundry to perform these professional services. The major findings of this investigation are as follows:

(1) An investigative sampling of The Laundry plant site satisfactory to DOE was conducted by Howard Edde, Inc. on August 24, 1987 with samples analyzed by AM-TEST, Inc. laboratories. Sampling was done at a time period when it had not rained for several weeks.

(2) A study of the lab data shows that action level problem areas on the site exist at Sampling Stations 10 A-B-C and 11 A-B-C and possibly 11 C (groundwater). This area is located near the southeast corner of the building and identified in the report in Figure 2.

Detectable concentrations of tetrachloroethylene appear at most near surface locations on the site including the "background" sampling locations.

(3) There are no known drinking water wells in the City of Hoquiam and no known wells for other uses in the area. Remedial action level concentrations at this site are based on fresh and saltwater chronic toxicity levels.

(4) Several alternative remedial actions were considered based on current available information. The most practical solution appears to be removal of the contaminated soil to below an action level concentration. This will involve removal of approximately 110 cu yds contaminated soil for transfer to Arlington, Oregon or other similar approved disposal sites, assuming these sites will accept the contaminated soil. Alternatively, air volatilization of organic contaminants in the soil removed might be feasible to preclude need for off-site disposal. This would require further investigation that could not be conducted within the DOE timetable allowed for this report's submittal.

An August 1988 implementation of the soil removal alternative is recommended in order to increase likelihood the soil can then pass the required paint filter test. Considerable care must be taken during the cleanup to reduce the risks associated with uncontrolled excavation.

Prior to actual implementation a "second round" soil sampling is recommended to more precisely define the extent of contamination. Also, further discussions are anticipated with DOE regarding acceptability of a "No Action" decision at this site rather than the disposal option described herein.

(5) The cost of remedial action via excavation and disposal of action level contaminated soil as described above is estimated to cost in the order of about $55,000 to $60,000, not including further required engineering services. These estimates also do not include cost for future groundwater monitoring that may be required.

Respectfully submitted,

Howard Edde

Howard Edde, Ph.D., P.E.
President

INTRODUCTION

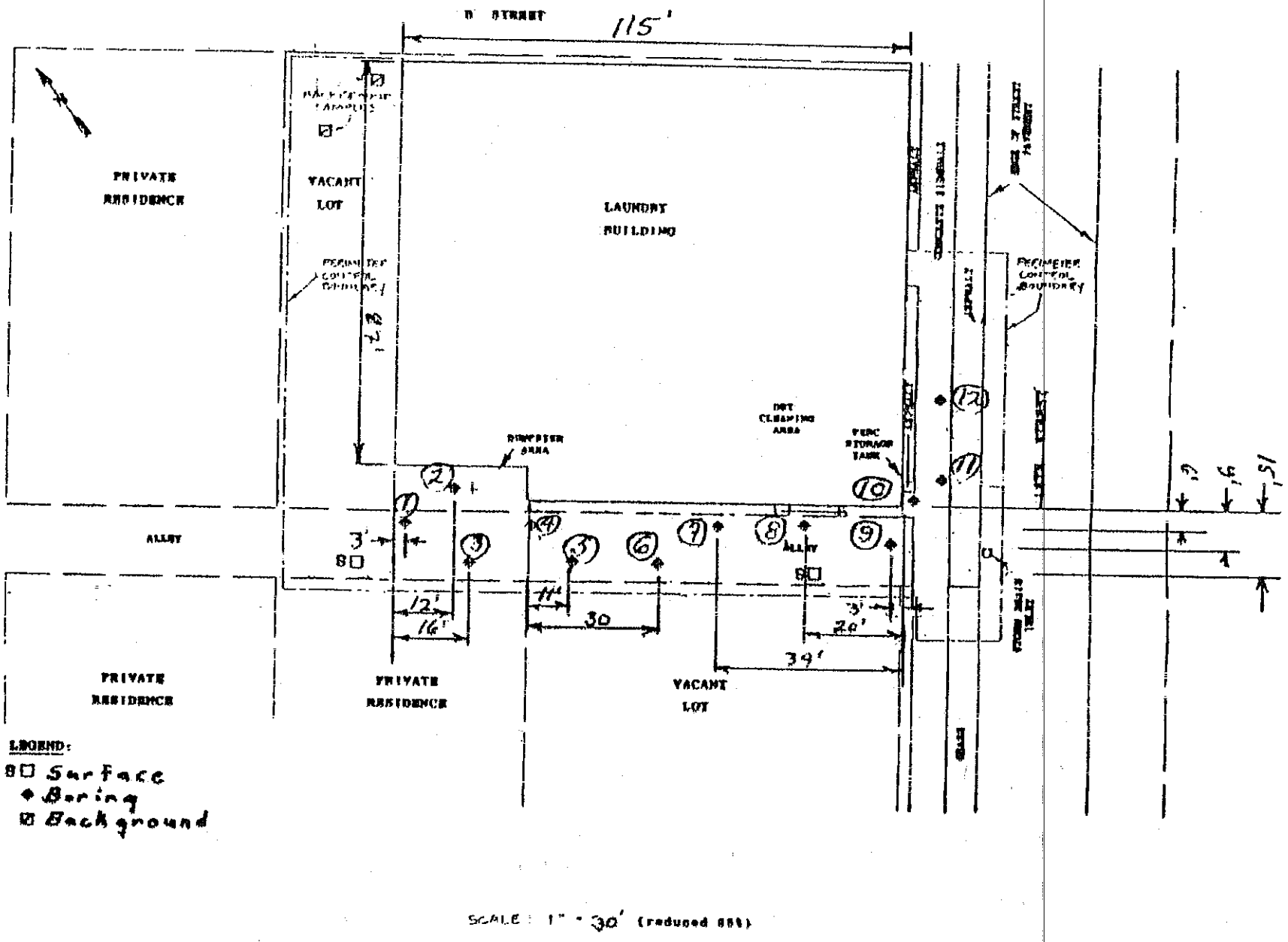
On September 28, 1984 the Washington Department of Ecology (DOE) conducted a dangerous waste inspection and later conducted a brief sampling at Most Western Laundry and Dry Cleaners, Inc. - Hoquiam, WA. (The Laundry). As a result of the findings from this inspection and sampling, Howard Edde, Inc. Consulting Engineers was retained by The Laundry in a contract dated June 3, 1985 to provide required consulting services. An updated agreement to perform the most recent engineering services was signed by The Laundry on December 2, 1986.

A DOE approved sampling plan was prepared dated November 3, 1986. The sampling plan included a site description, site history, geological description, previous sampling data and an action level was defined. Subsequently, Consent Order No. DE 86-S149 was entered which was signed by DOE on April 24, 1987. This Order contained a project time schedule including requirements for submittal of engineering consultants recommendations for remedial action. On May 15, 1987 the DOE notified the Laundry of their intent to formally amend the Consent Order to allow The Laundry an extension of time before implementing actual sampling. Howard Edde, Inc. conducted a field sampling satisfactory to DOE on August 24, 1987 with samples collected being submitted to AM-TEST, Inc. Laboratories for analysis.

DESCRIPTION OF SAMPLING

A phased approach to sampling was proposed with the August 24, 1987 sampling being the initial phase. In the event the initial sampling did not sufficiently define the volumetric quantity of soil contamination or possible extent of groundwater contamination, a second phase of sampling was anticipated.

Figure 1 shows the actual locations of sampling. These locations were selected to provide information about potential soil contamination in the immediate vicinity of suspected centers of contamination and at



SCALE: 1" = 30' (reduced 88%)

FIGURE 1

ACTUAL SOIL SAMPLING LOCATIONS

short distances away from the suspected centers of contamination. At two of these sampling locations (marked by the letters S1 and S2) a single surface sample was collected at depths of 0 to 3 inches. At the remaining twelve suspected sites of contaminated soil, samples were collected at depths of 1 ft, 3 ft, and 5 ft (labeled A, B, and C, respectively) at ± 2 inch accuracy of sampling depth. Groundwater was encountered in a sufficient quantity that it could be sampled only at Station No. 11C. The groundwater was sampled using a stainless steel bailer with teflon check ball. The bailer was lowered directly into the hole. The water yield of the hole was very limited with only enough water collectible for a sample. The limited yield of the hole did not permit removal of three to four exchanges of well hole volume of water before sample collection to assure that the sample contained groundwater representative of the formation, which would be the proper sample collection procedure in this type situation. The sample collected was transferred to a 40 ml glass vial sample container having a teflon-faced silicone septa. The sample was transferred with caution to minimize loss of volatiles. At each sampling location one grab sample was collected and placed into the glass vial. At some selected locations where a possibility of contamination seemed possible, split samples were collected for analysis by both DOE and Howard Edde, Inc.

Two background soil samples labeled B1 and B2 were taken from the northern part of the vacant lot which fronts B Street (see Figure 1). This lot is owned by The Laundry. The northern part of the lot is lawn-covered and was believed by The Laundry management to be free of contamination. The samples from each of these two locations were taken from the upper six inches of topsoil. Samples U1 and U2 were blind samples taken at the same location as sample 5A (e.g., sampled in triplicate). The laboratory duplicated the analysis of samples 8A, U1 and U2. A Methods Blank (MB) was prepared by AM-TEST at the time of lab analysis. A Transfer Blank (TB) was prepared and carried into the field during the sampling period.

The field collected samples and their locations of collection in the field are summarized in Table 1:

TABLE 1

SOILS INFORMATION

Bottle I.D.	Sample Identification	No. of Location	No. of Samples (depths)	Total No. of Samples
S1-S2	Surface	2	1 (0-3 inches)	2
1 thru 12 at depths of 1,3,5 ft (A,B,C)	Depth Profile	12	3 (1 ft, 3 ft, 5 ft)	36
B1-B2	Background	2	1 (0-6 inches)	2
11C, H_2O	Water	1	@ 5 ft.	1
U1, U2	Same as 5A	2	---	2
			TOTAL:	43

The sampling locations were designed to determine the maximum concentrations of contamination which exist on site as well as demonstrate whether contaminants had migrated away from the facility or downward through the soil column. All of the sampling locations were either on city-owned land (streets and alleyways) or property owned by The Laundry. Sampling was done at a time period when it had not rained for several previous weeks.

LAB QUALITY CONTROL

All of the soil (and groundwater) samples were analyzed for purgeable chlorinated organics per EPA SW 846 Method No. 8010. All chlorinated organics listed in Method 8010 were reported. The detection limit for the various compounds ranged between 5 and 10 ug/kg for uncontaminated sampling stations as identified in the lab data (Table 2). Higher detection limits were applicable at soil sampling stations 10, 11 and 12 and water sample station 11C due to required dilution.

In order to demonstrate the validity of the Method 8010 results, one soil sample and one groundwater sample were analyzed for purgeable organics by Method 8240. All of the purgeable priority pollutants were reported as shown in Table 2.

For QA/QC purposes for Method 8010, the analytical lab was directed to run one duplicate plus one duplicate/spike per every 20 samples per each sample matrix. For Method 8240, The Laundry samples were run along with other small volume customers of the lab, and the lab was directed to report the matrix spike results accompanying this set of samples. Surrogates were run on every sample. Analysis of samples were completed by the lab within 14 days of sample collection.

ACTION LEVELS

The concentration of tetrachloroethylene and other Method 8010 constituents serves to define whether soil contamination exists at an action level concentration requiring removal of contaminated soil, groundwater cleanup work or other remedial actions.

An action level is a concentration level that would trigger a clean up activity. This could affect either soil or groundwater contamination. There are no known uses of groundwater for drinking water in the vicinity of The Laundry.

The US-EPA recently promulgated maximum contaminant levels (MCL) in drinking water for eight volatile synthetic organic chemicals as required by the revised Safe Drinking Water Act of 1986 (Reference: Federal Register, July 8, 1987). Also reported were MCLG's (goals) for other constituents. The promulgated MCL's applicable to constituents found at The Laundry are reported in Table 3.

TABLE 3

APPLICABLE MCL'S STANDARDS

Chemical	MCL(mg/L)
Trichloroethylene	0.005
Vinyl Chloride	0.002
1,1 Dichloroethylene	0.007
Chloroform	No MCL
Tetrachloroethylene	No MCL

FIELD INVESTIGATIVE FINDING

Table 2 presents the AM-TEST analytical report for samples collected during the August 24, 1986 sampling at the Laundry.

The soil profile observed was generally uniform over the entire site. Table 4 identifies the general soil profile found at the site.

TABLE 4

ACTUAL SOIL PROFILE

Depth (inches)	Soil Description
0 - 8	Gravel and/or pavement (depending on exact location sampled)
8 - 30	Loose sandy silt intermixed with clay, loam and rock.
30 - 65	Interbedded soft silt, sandy silt and organic silt which combined formed a black earthy muck.

The soil samples at Stations 11 and 12, especially Sample 12C, had a strong smell which resembled gasoline or other hydrocarbons. The DOE collected a sample at these stations with the stated intention of analyzing the sample for hydrocarbons and Method 8010. A building located directly across 16th Street from this sampling station had numerous empty fuel cans and other trash and was described by local

residents, including Hoquiam Public Works personnel, as being the site of an old trucking company repair shop.

Table 5 summarized the field results that show a detectable concentration of Method 8010 chemical constituents. These data are expressed as ug/kg (e.g., ~ parts per billion, ppb).

The EPA Water Quality Criteria fresh and salt water chronic toxicity levels (Reference: Quality Criteria for Water, 1986 EPA 440/5-86-001, May 1, 1986) for Method 8010 constituents reported in Table 5 are summarized in Table 6 which also summarizes DOE action levels appropriate to the Laundry.

TABLE 6

CHRONIC TOXICITY AND ACTION LEVELS

Constituent	Chronic Toxicity, mg/L Salt Water	Fresh Water	DOE Factor	Action Level, Mg/L
Chloroform	(a)	1.24	10X	12.4
Dichloroethylene	224(d)	(a)	10X	2240
Tetrachloroethylene	0.45	0.84	10X	4.5-8.4
Trichloroethylene	(a)	~21.9(b)	10X	219.0
Vinyl Chloride	(c)	(c)	10X	--

Notes: (a) No definitive data available
(b) One species adversely affected
(c) No organisms tested
(d) No data for sensitive saltwater aquatic life

The DOE Final Cleanup Policy-Technical, effective date July 10, 1984, provides a basis for action level cleanup. Part II of this document gives the basis for standard/background cleanup levels when a release of material represents a threat to public health or the environment over the longer term. The soil cleanup levels in these cases is based on 10X the chronic aquatic toxicity level. Thus the action level per this criteria in soil is reported above in Table 6. However, if it were determined these levels are not achievable or appropriate for this site, the Part III Protection Levels may be applicable in which case the applicable cleanup level would be 100X the chronic aquatic toxicity level reported above. The above discussion assumes the water is not

TABLE 5

SUMMARY OF DETECTABLE METHOD 8010 CHEMICAL CONSTITUENTS

MG/KG (PPB)

Station	Parameters						
	Chloroform	1,1,1 Trichloroethane	Vinyl Chloride	Trans-1,2 Dichloroethylene	Tetra-Chloroethylene	Tri-Chloroethylene	Total Halogenated Hydrocarbons THH, (%)
1A		16.9					
1B		18.9					
1C		14.6					
2A			282	5.8	112		
2B			11,771	14.9	87		
2C			847	51	2,071		
3A					36	16.6	
3B							
3C							
4A							
4B							
4C							
5A		(7.1)					
5B			12.2				
5C			16.1				
6A					138	15.2	
6B			41				
6C			22				
7A					12.7		
7B			24				
7C			95				
8A					83(69)	5(5.7)	
8B							
8C							
9A					16.4		
9B							
9C					31		
10A					9,410,900	30,970	0.944
10B		5,310			773,400	5,430	0.078
10C	2,110	2,430			2,664,600	16,960	0.268
11A	4,287				1,924,500	30,690	0.196
11B					4,819,000	7,565	0.483
11C					4,314,450	88,110	0.440
12A			903		3,225	271	
12B			6,580		1,220	442	
12C			3,340		1,875	373	
S1		3.9			13.9		
S2		3.5			11.8		
B1					10.7		
B2					9.7		
11C (H_2O)			2,195		209,060	6,350	0.022
T1							
MB							

Notes: 1. ( ) indicates results from duplicate analysis of same sample
2. S1 and S2 Surface Samples
3. B1 and B2 Background
4. THH listed only when greater than 0.01% which per WAC 173-303-102(3) identifies material which are Dangerous Waste (DW) in Washington State.

R15/MWLTB5/10-21-87

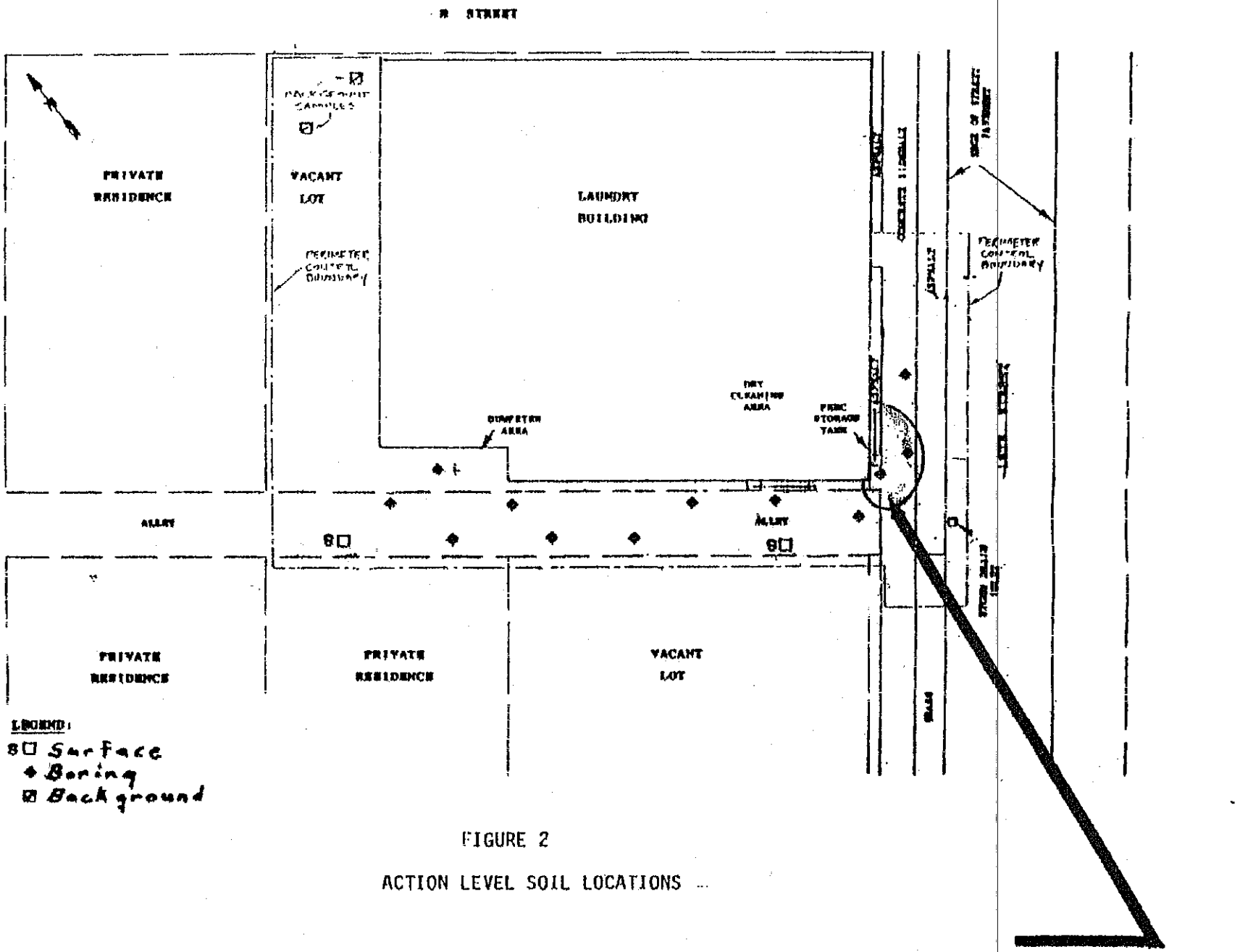


FIGURE 2

ACTION LEVEL SOIL LOCATIONS

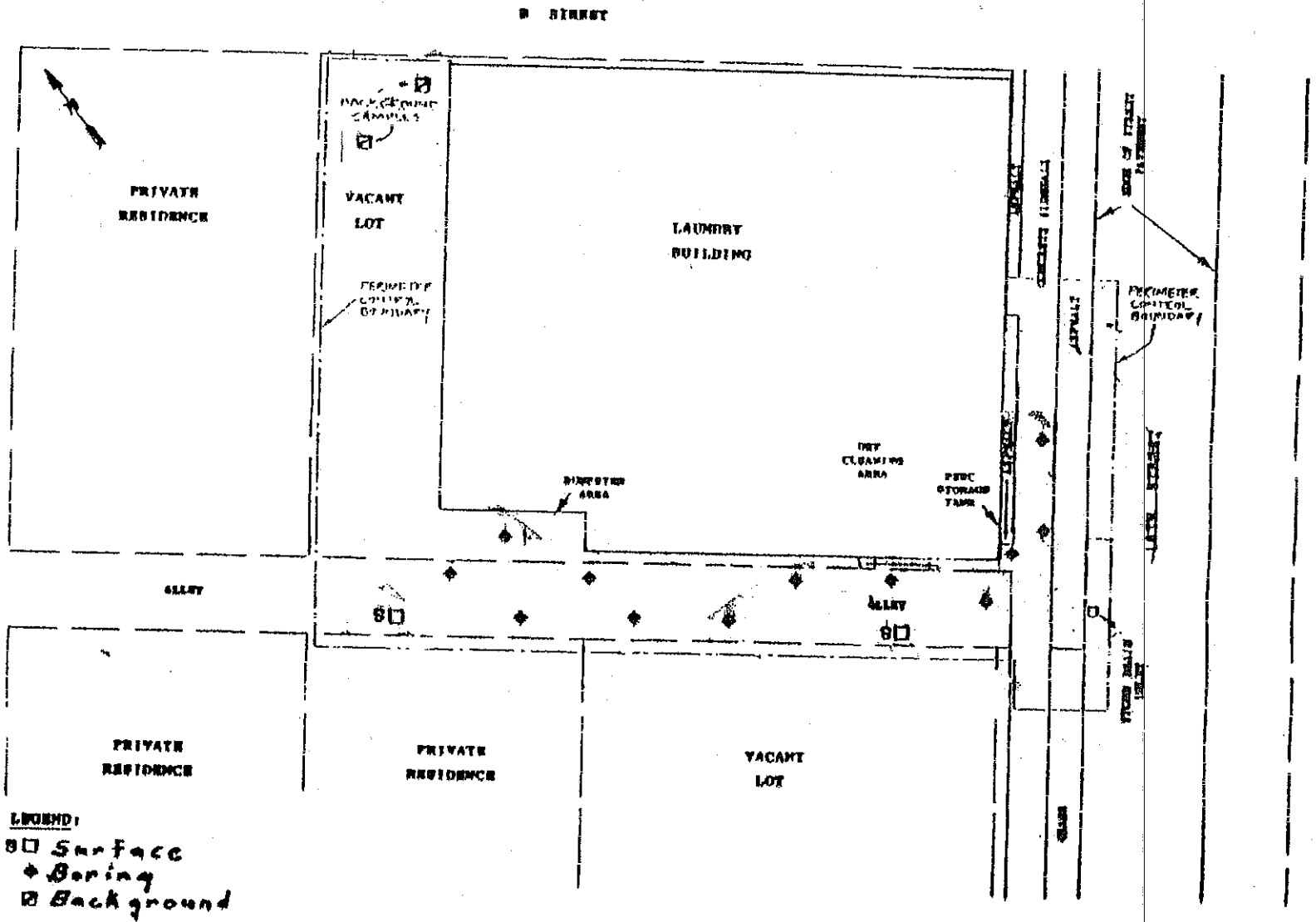


FIGURE 3

AREAS OF DETECTABLE NEAR SURFACE
SOIL CONTAMINATION OF TETRACHLOROETHYLENE

used for human drinking water, which may result in more stringent cleanup levels. There are no drinking water wells in the City of Hoquiam and no known wells for other uses in the area. (Reference: Phone conversation of June 10, 1985 with staff at Public Works Office - Hoquiam).

PROBLEM ANALYSIS

A study of Tables 2,3 and 5 data show that action level problem areas on the site include Sampling Stations 10 A,B,C; 11 A,B,C; and possibly 11C (groundwater). However, as reported above it was not possible to properly sample the groundwater because of the limited aquifer yield at the time of sampling such that this is not a representative groundwater sample.

The approximate location of soil where an action level of soil contamination exists is shown schematically in plan view in Figure 2.

Tetrachloroethylene at detectable concentrations also appears on the property (see Figure 3) at all near surface stations, excepting Stations 1A, 3A, 4A and 5A. This detectable quantity of tetrachloroethylene in surface soils includes both background sample locations (B1 and B2) in the northwest corner of the property. The B1 and B2 background concentrations were 10.7 ppb and 9.7 ppb, respectively.

REMEDIAL ACTION

There are no known drinking water wells in the City of Hoquiam and no known wells for other uses in the area. Therefore, our remedial action level concentrations at this site are based on fresh and saltwater chronic toxicity levels. The most critical of these action levels based on presently available information (as summarized in Table 6) appear to apply to tetrachloroethylene with a 4.5 to 8.4 mg/L chronic toxicity action level for saltwater and freshwater aquatic organisms, respectively.

Figure 2 shows an approximation in plan view of the area of contaminated soil. We have considered herein a number of alternative remedial actions at the Laundry site including: (1) no action, (2) removal of soil at action level concentrations for disposal at an approved hazardous waste disposal site or other appropriate handling, (3) containment, and (4) contaminant extraction. In our evaluation of recommended remedial actions, we have looked at their environmental impacts and, of course, their costs.

The State DOE has been aware of this site for approximately three years with no environmentally beneficial actions implemented. This suggests that from a regulatory perception, time may not be a critical factor. Therefore, it may be unwise at this time to make a premature judgement of the recent data without a more detailed evaluation of the available alternative remedial actions than can be made within the time allowed by DOE for submittal of this report. Also, site aerosol exposure during any excavation remedial activity must be weighed, and may be a greater community problem than the current groundwater problem in a locality wherein groundwater is not used for domestic purposes. Perhaps the major concern of the contaminated soil is its potential impact upon aquatic organisms in the adjacent recipient Little Hoquiam and Hoquiam Rivers.

During the August 1987 site sampling, local groundwater was low. Hence only at Station 11C was it possible to get a groundwater sample (unrepresentative). Available historical data indicates a normal water table on the order of 3 to 8 feet deep with shallowest conditions during winter and spring. The groundwater probably discharges into the Little Hoquiam or Hoquiam River to the west or southwest of the Laundry. It is unlikely the local aquifer has sufficient production capacity to support industrial or municipal wells (excepting via recharge from the river).

TABLE 2
LAB DATA

Received 9/30/87 JE

am test inc.
14603 N.E. 87th St. • REDMOND, WASHINGTON 98052 • 206/885-1664

ANALYSIS REPORT

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney
Corner of B & 16th Streets
Hoquiam, WA 98550

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710651	710652	710653	DETECTION LIMIT
Client Identification	1A	1B	1C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	ND	ND	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	16.9	18.9	14.5	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	ND	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	ND	ND	ND	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

cost prepared herein for The Laundry. If the Laundry wishes greater assurance as to the cleanup cost, the Laundry shall employ an independent cost estimator.

CONCLUSIONS

The principal area of contamination is on the east side of The Laundry building at sampling stations No. 10 and 11. The overlying pavement in this area probably reduces the groundwater movement such that a natural containment of the contaminants has been realized excepting for unmixed diffusion into the local groundwater.

The most practical approach to the problem is the removal of contaminated soil as described earlier in this report. This should be preceded by further soil sampling to ascertain the depth of penetration of contaminants. The second phase sampling and subsequent soil excavation should be implemented only during a dry weather period in the Hoquiam area. Thus we recommend this be implemented during July-August 1988. During excavation considerable care must be taken to reduce risks associated with uncontrolled excavation.

It is even conceivable that with further research investigation open air volatilization of on-site excavated organic contaminants to achieve cleanup might be an alternative to off-site disposal at Arlington, Oregon or equivalent disposal facility.

Groundwater monitoring is recommended for two years near sampling station 2C (e.g., at 5 foot depth). Further aquifer cleanup is not presently recommended in that the groundwater is not used for human consumption.

R15/MWLRPT/10-21-87

COST ESTIMATE

Disposal of Action Level Concentration Soil

A cost estimate was prepared based on the previously identified estimate of 110 cu yd contaminated soil . The unit cost information used in this estimate was obtained mainly from Mr. Jack Stone at Waste Management, Inc., Kirkland, WA. This estimate of probable cost assumes disposal of soil in the Waste Management, Inc. hazardous waste disposal facility at Arlington, Oregon. The estimate is based upon our current 110 cu yd estimate of soil to be removed. The exact quantity should be established prior to implementation of this alternative. The estimated cost to accomplish this form of clean up is as follows:

$$\frac{(110\ yd^3)\ (135\ lbs/ft^3)\ (27\ ft^3/yd^3)}{2{,}000\ lbs/ton} = 200\ tons$$

Item	Unit Cost	Cost, $
Arlington Gate Price	$124/t + tax = $144/t @ 200 tons	$28,800
Transportation	(200t/20t/load)(320 mi)($3.45/load mi)	11,040
Truck Bed Liners	$60/truck liners @ 10 liners	600
Laboratory	Characterization Profile (Lab)	1,000
On-Site Loading	110 yd^3 @ $30/$yd^3$	3,300
	SUBTOTAL:	$44,740
	ESTIMATING CONTINGENCY 25%:	$11,200
	TOTAL:	$55,940

The above identified costs do not include professional engineering services for "second phase" sampling, research, negotiations with regulatory agencies, or engineering management, coordination and observation services during the on-site excavation and removal of soil.

Since Howard Edde, Inc. has no control over the cost of labor, materials or equipment; or over the contractor's methods of determining prices; or over competitive bidding or market conditions; opinions of probable cost, as provided for herein, are made on the basis of Howard Edde, Inc. experience and qualifications and represent the firm's best judgement as an engineering firm familiar with the environmental control industry. However, Howard Edde, Inc. cannot and does not guarantee that proposals, bids, or the cleanup cost will not vary from the opinions of probable

site. The problem of ultimate disposal of the contaminants is, however, moved to another location and another set of processes. The ultimate treatment and disposal of the contaminated extraction fluid can often be carried out under more favorable technical conditions, at lower risk, and in some cases at reduced cost compared with other in-place options. Unfortunately flushing or "solution mixing" of contaminants often requires bench scale testing of potentially suitable solvents and the design of a recharge/discharge system to affect flushing in the field.

Conceptually we foresee extraction implemented via the installation of wells in a circular pattern around the Station 11 and 12 sources of contaminants. The water (e.g., extraction fluid) removed would have to be air stripped. This may result in an air emission control problem in the confined neighborhood at The Laundry site. Emission controls would approximately double the cost of air stripping. The maximum recommended occupational air levels for the three volatile organic chemicals of concern are: tetrachloroethylene, 670 mg/m^3; trichloroethylene, 540 mg/m^3; 1,2-dichloroethylene, 790 mg/m^3. These standards are recommended by OSHA and are based on the threshold limit value-time weighted average for an 8-hour exposure (Reference: ROD Annual Report for EPA, June 1986, information dealing with Remedial Action of Ponders Corner, WA.)

The extraction treatment will likely have to be overdesigned because of the uncertainty of total amount of contaminants present. Another problem is the discharge of the treated water which may not be allowed to be recharged into the ground and recycled.

Our firm's very preliminary evaluation involved air stripping of recycled recharge water and, alternatively, treatment of recycled recharge water by granular activated carbons (GAC). We conclude that this form of air stripping on site is impractical within the existing neighborhood. The GAC was ruled out in that it would require further design research with total cost likely exceeding the disposal option.

ALTERNATIVE EVALUATIONS

1. No Action

The no action alternative would involve leaving the contamination in the ground. It would allow natural processes to disperse and biodegrade the contaminants - in the best case, eventually dropping them below state action levels. The rapidity of contaminant dispersion would be enhanced by the high groundwater level in the area. The rate of natural dispersion and biodegradation might be monitored via groundwater monitoring wells installed at Station 11C and 2C. The 2C monitoring well would monitor contaminant dispersion. It would be out of the alleyway. It may require a slight relocation to not interfere with The Laundry's loading and unloading activities. The wells would be grab sampled twice yearly and analyzed by Method 8010.

2. Removal of Soil at Action Level Concentrations

This alternative involves removal, or other appropriate handling, of soil contaminated at a tetra-chloroethylene action level of 4.5 mg/L or higher. Based on the presently available information we have estimated this to include a volume illustrated in Figure 2 having dimensions of approximately 11.25 ft x 26.25 ft x 10 ft depth ~ 110 cy yds. The exact depth of action level contamination is unknown at this time. Prior to implementing this alternative we would anticipate further "second round" soils testing to more precisely define the extent of contamination; in particular the depth of contamination. We would also anticipate further discussions with DOE regarding the acceptability of the no action alternative described above at this site or on-site air volatilization of excavated soil to realize a cleanup. Otherwise, the contaminated soil will be disposed of at an approved hazardous waste facility.

The contaminated soil is an F002 listed dangerous waste in Washington State. F002 waste at concentrations greater than 10,000 mg/L (1%) purgeable halocarbons are extremely hazardous waste (EHW) in Washington State, in which case they cannot be left in place. They are also now banned from approved hazardous waste disposal facilities similar to that at Arlington, Oregon. For less than 1% concentration (Reference:

Federal Register, November 8, 1986) there existed a two year variance, e.g. to November 8, 1988, for disposal at an Arlington, Oregon type facility if the specific facility chooses to accept the waste. The less than 1% waste is currently being accepted at the Arlington, Oregon facility pending passage of the "paint filter" test and submittal of an acceptable waste profile characterization sheet. Passage of the paint filter test for contaminated soil from The Laundry would likely require its removal during late summertime conditions in order to minimize the free liquid problem that can be anticipated in the field at Hoquiam. Thus, we project an August 1988 implementation if this is the recommended alternative. This alternative also includes installation of a 2C monitoring well as described in the above No Action alternative. The well in this case would be monitored twice yearly over a period of two years, at which time further required monitoring would cease if evidence of cleanup to aquatic action levels was confirmed. Considerable care must be taken during any soils excavation into the contaminated soils to reduce the risks associated with uncontrolled excavation.

3. Containment

Containment can be realized either by creating barrier walls or via immobilization techniques (e.g., adsorption, ion exchange, precipitation). We do not foresee that practical field implementation of these technologies would result in problem elimination. Because of the high groundwater in the area of contamination, it is unlikely application of this technology will be successful in complete elimination of the problem at a competitive cost. Therefore, no detailed evaluation of this technology was undertaken based on the conclusion it was impractical.

4. Containment Extraction

Extraction techniques actually remove the contamination from the soil by dissolution in a fluid which is subsequently removed and treated either on site or at another location. This technique offers a more or less permanent solution to the problems pre-existing at the remedial action

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710654	710655	710656	DETECTION LIMIT
Client Identification	2A	2B	2C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	282.	11,771.	847.	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	5.8	14.9	51.	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	43.	75.	251.	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	112.	87.	2,071.	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710657	710658	710659	DETECTION LIMIT
Client Identification	3A	3B	3C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	20.	54.	ND.	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	ND	16.6	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	31.	36.	ND	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710660	710661	710662	DETECTION LIMIT
Client Identification	4A	4B	4C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	ND	ND	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	ND	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	ND	ND	ND	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710663	710664	710665	DETECTION LIMIT
Client Identification	5A	5B	5C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	12.2	16.1	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	ND	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	ND	ND	ND	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710666	710667	710668	DETECTION LIMIT
Client Identification	6A	6B	6C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	41.	22.	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	15.2	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	138.	ND	ND	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710669	710670	710671	DETECTION LIMIT
Client Identification	7A	7B	7C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	24.	95.	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	ND	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	12.7	ND	ND	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710672	710672	710673	710674	DETECTION LIMIT
Client Identification	8A	DUP.	8B	8C	(ug/kg)
Chloromethane	ND	ND	ND	ND	10.
Vinyl Chloride	ND	ND	ND	ND	5.
Bromomethane	ND	ND	ND	ND	10.
Chloroethane	ND	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	ND	5.
Chloroform	ND	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	ND	5.
Trichloroethylene	5.	5.7	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	ND	5.
Tetrachloroethylene	83.	69.	ND	ND	5.
Dibromochloromethane	ND	ND	ND	ND	5.
Bromoform	ND	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710675	710676	710677	DETECTION LIMIT
Client Identification	9A	9B	9C	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	ND	ND	5.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	ND	ND	ND	5.
Carbon Tetrachloride	ND	ND	ND	5.
1,2-Dichloroethane	ND	ND	ND	5.
Trichloroethylene	ND	ND	ND	5.
1,2-Dichloropropane	ND	ND	ND	5.
Dichlorobromomethane	ND	ND	ND	5.
Trans-1,3-Dichloropropene	ND	ND	ND	5.
Cis-1,3-Dichloropropene	ND	ND	ND	5.
1,1,2-Trichloroethane	ND	ND	ND	5.
Tetrachloroethylene	16.4	ND	31.	5.
Dibromochloromethane	ND	ND	ND	5.
Bromoform	ND	ND	ND	5.
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.

All results in ug/kg.
ND = Not Detected.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710678	710679	710680	DETECTION LIMIT*
Client Identification	10A	10B	10C	(ug/kg)
Chloromethane	ND	ND	ND	4,200.
Vinyl Chloride	ND	ND	ND	4,200.
Bromomethane	ND	ND	ND	4,200.
Chloroethane	ND	ND	ND	4,200.
Dichlorodifluoromethane	ND	ND	ND	4,200.
Trichlorofluoromethane	ND	ND	ND	2,100.
1,1-Dichloroethylene	ND	ND	ND	2,100.
Methylene Chloride	ND	ND	ND	2,100.
Trans-1,2-Dichloroethylene	ND	ND	ND	2,100.
1,1-Dichloroethane	ND	ND	ND	2,100.
Chloroform	ND	ND	2,110.	2,100.
1,1,1-Trichloroethane	ND	5,310.	2,430.	2,100.
Carbon Tetrachloride	ND	ND	ND	2,100.
1,2-Dichloroethane	ND	ND	ND	2,100.
Trichloroethylene	30,970.	5,430.	16,960.	2,100.
1,2-Dichloropropane	ND	ND	ND	2,100.
Dichlorobromomethane	ND	ND	ND	2,100.
Trans-1,3-Dichloropropene	ND	ND	ND	2,100.
Cis-1,3-Dichloropropene	ND	ND	ND	2,100.
1,1,2-Trichloroethane	ND	ND	ND	2,100.
Tetrachloroethylene	9,410,900.	773,400.	2,664,600.	2,100.
Dibromochloromethane	ND	ND	ND	2,100.
Bromoform	ND	ND	ND	2,100.
1,1,2,2-Tetrachloroethane	ND	ND	ND	2,100.

All results in ug/kg.
ND = Not Detected
*Higher Detection Limit due to required dilution.

Continued . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710681	710682	710683	DETECTION LIMIT*
Client Identification	11A	11B	11C	(ug/kg)
Chloromethane	ND	ND	ND	4,200.
Vinyl Chloride	ND	ND	ND	4,200.
Bromomethane	ND	ND	ND	4,200.
Chloroethane	ND	ND	ND	4,200.
Dichlorodifluoromethane	ND	ND	ND	4,200.
Trichlorofluoromethane	ND	ND	ND	2,100.
1,1-Dichloroethylene	ND	ND	ND	2,100.
Methylene Chloride	ND	ND	ND	2,100.
Trans-1,2-Dichloroethylene	ND	ND	ND	2,100.
1,1-Dichloroethane	ND	ND	ND	2,100.
Chloroform	4,287.	ND	ND	2,100.
1,1,1-Trichloroethane	ND	ND	ND	2,100.
Carbon Tetrachloride	ND	ND	ND	2,100.
1,2-Dichloroethane	ND	ND	ND	2,100.
Trichloroethylene	30,690.	7,565.	88,110.	2,100.
1,2-Dichloropropane	ND	ND	ND	2,100.
Dichlorobromomethane	ND	ND	ND	2,100.
Trans-1,3-Dichloropropene	ND	ND	ND	2,100.
Cis-1,3-Dichloropropene	ND	ND	ND	2,100.
1,1,2-Trichloroethane	ND	ND	ND	2,100.
Tetrachloroethylene	1,924,500.	4,819,000.	4,314,450.	2,100.
Dibromochloromethane	ND	ND	ND	2,100.
Bromoform	ND	ND	ND	2,100.
1,1,2,2-Tetrachloroethane	ND	ND	ND	2,100.

All results in ug/kg.
ND = Not Detected
*Higher Detection Limit due to required dilution.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710684	710685	710686	DETECTION LIMIT*
Client Identification	12A	12B	12C	(ug/kg)
Chloromethane	ND	ND	ND	200.
Vinyl Chloride	903.	6,580.	3,340.	200.
Bromomethane	ND	ND	ND	200.
Chloroethane	ND	ND	ND	200.
Dichlorodifluoromethane	ND	ND	ND	200.
Trichlorofluoromethane	ND	ND	ND	100.
1,1-Dichloroethylene	ND	ND	ND	100.
Methylene Chloride	ND	ND	ND	100.
Trans-1,2-Dichloroethylene	ND	129.	ND	100.
1,1-Dichloroethane	ND	ND	ND	100.
Chloroform	ND	ND	ND	100.
1,1,1-Trichloroethane	ND	ND	ND	100.
Carbon Tetrachloride	ND	ND	ND	100.
1,2-Dichloroethane	ND	ND	ND	100.
Trichloroethylene	271.	442.	373.	100.
1,2-Dichloropropane	ND	ND	ND	100.
Dichlorobromomethane	ND	ND	ND	100.
Trans-1,3-Dichloropropene	ND	ND	ND	100.
Cis-1,3-Dichloropropene	ND	ND	ND	100.
1,1,2-Trichloroethane	ND	ND	ND	100.
Tetrachloroethylene	3,225.	1,220.	1,875.	100.
Dibromochloromethane	ND	ND	ND	100.
Bromoform	ND	ND	ND	100.
1,1,2,2-Tetrachloroethane	ND	ND	ND	100.

All results in ug/kg.
ND = Not Detected
*Higher Detection Limit due to required dilution.

Continued . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710687	710688	710689	DETECTION LIMIT
Client Identification	S1	S2	B1	(ug/kg)
Chloromethane	ND	ND	ND	10.
Vinyl Chloride	ND	ND	ND	10.
Bromomethane	ND	ND	ND	10.
Chloroethane	ND	ND	ND	10.
Dichlorodifluoromethane	ND	ND	ND	10.
Trichlorofluoromethane	ND	ND	ND	5.
1,1-Dichloroethylene	ND	ND	ND	5.
Methylene Chloride	ND	ND	ND	5.
Trans-1,2-Dichloroethylene	ND	ND	ND	5.
1,1-Dichloroethane	ND	ND	ND	5.
Chloroform	ND	ND	ND	5.
1,1,1-Trichloroethane	3.9	3.5	ND	3.5
Carbon Tetrachloride	ND	ND	ND	3.5
1,2-Dichloroethane	ND	ND	ND	3.5
Trichloroethylene	ND	ND	ND	3.5
1,2-Dichloropropane	ND	ND	ND	3.5
Dichlorobromomethane	ND	ND	ND	3.5
Trans-1,3-Dichloropropene	ND	ND	ND	3.5
Cis-1,3-Dichloropropene	ND	ND	ND	3.5
1,1,2-Trichloroethane	ND	ND	ND	3.5
Tetrachloroethylene	13.9	11.8	10.7	3.5
Dibromochloromethane	ND	ND	ND	3.5
Bromoform	ND	ND	ND	3.5
1,1,2,2-Tetrachloroethane	ND	ND	ND	3.5

All results in ug/kg.
ND = Not Detected

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710690	DETECTION LIMIT
Client Identification	B2	(ug/kg)
Chloromethane	ND	10.
Vinyl Chloride	ND	10.
Bromomethane	ND	10.
Chloroethane	ND	10.
Dichlorodifluoromethane	ND	10.
Trichlorofluoromethane	ND	5.
1,1-Dichloroethylene	ND	5.
Methylene Chloride	ND	5.
Trans-1,2-Dichloroethylene	ND	5.
1,1-Dichloroethane	ND	5.
Chloroform	ND	5.
1,1,1-Trichloroethane	ND	3.5
Carbon Tetrachloride	ND	3.5
1,2-Dichloroethane	ND	3.5
Trichloroethylene	ND	3.5
1,2-Dichloropropane	ND	3.5
Dichlorobromomethane	ND	3.5
Trans-1,3-Dichloropropene	ND	3.5
Cis-1,3-Dichloropropene	ND	3.5
1,1,2-Trichloroethane	ND	3.5
Tetrachloroethylene	9.7	3.5
Dibromochloromethane	ND	3.5
Bromoform	ND	3.5
1,1,2,2-Tetrachloroethane	ND	3.5

All results in ug/kg.
ND = Not Detected

Continued . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 601

Laboratory Sample Nos.	710694	DETECTION LIMIT* (ug/l)
Client Identification	11C Water	
Chloromethane	ND	700.
Vinyl Chloride	2,195.	700.
Bromomethane	ND	700.
Chloroethane	ND	700.
Dichlorodifluoromethane	ND	700.
Trichlorofluoromethane	ND	350.
1,1-Dichloroethylene	ND	350.
Methylene Chloride	ND	350.
Trans-1,2-Dichloroethylene	ND	350.
1,1-Dichloroethane	ND	350.
Chloroform	ND	350.
1,1,1-Trichloroethane	ND	350.
Carbon Tetrachloride	ND	350.
1,2-Dichloroethane	ND	350.
Trichloroethylene	6,350.	350.
1,2-Dichloropropane	ND	350.
Dichlorobromomethane	ND	350.
Trans-1,3-Dichloropropene	ND	350.
Cis-1,3-Dichloropropene	ND	350.
1,1,2-Trichloroethane	ND	350.
Tetrachloroethylene	209,060.	350.
Dibromochloromethane	ND	350.
Bromoform	ND	350.
1,1,2,2-Tetrachloroethane	ND	350.

All results in ug/l.
ND = Not Detected
*Higher Detection Limit due to required dilution.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710692	710692	710692	DETECTION LIMIT
Client Identification	U1	Duplicate	Spike Recovery %	(ug/kg)
Chloromethane	ND	ND	-	10.
Vinyl Chloride	ND	ND	76.	10.
Bromomethane	ND	ND	62.	10.
Chloroethane	ND	ND	86.	10.
Dichlorodifluoromethane	ND	ND	-	10.
Trichlorofluoromethane	ND	ND	72.	5.
1,1-Dichloroethylene	ND	ND	134.	5.
Methylene Chloride	ND	ND	82.	5.
Trans-1,2-Dichloroethylene	ND	ND	74.	5.
1,1-Dichloroethane	ND	ND	74.	5.
Chloroform	ND	ND	88.	5.
1,1,1-Trichloroethane	ND	ND	86.	5.
Carbon Tetrachloride	ND	ND	78.	5.
1,2-Dichloroethane	ND	ND	88.	5.
Trichloroethylene	ND	ND	80.	5.
1,2-Dichloropropane	ND	ND	79.	5.
Dichlorobromomethane	ND	ND	88.	5.
Trans-1,3-Dichloropropene	ND	ND	88.	5.
Cis-1,3-Dichloropropene	ND	ND	84.	5.
1,1,2-Trichloroethane	ND	ND	90.	5.
Tetrachloroethylene	ND	ND	94.	5.
Dibromochloromethane	ND	ND	93.	5.
Bromoform	ND	ND	88.	5.
1,1,2,2-Tetrachloroethane	ND	ND	116.	5.

All results in ug/kg.
ND = Not Detected

Continued . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8010

Laboratory Sample Nos.	710693	710693	710693	DETECTION LIMIT
Client Identification	U2	Duplicate	Spike Recovery %	(ug/kg)
Chloromethane	ND	ND	-	10.
Vinyl Chloride	ND	ND	86.	10.
Bromomethane	ND	ND	118.	10.
Chloroethane	ND	ND	82.	10.
Dichlorodifluoromethane	ND	ND	-	10.
Trichlorofluoromethane	ND	ND	98.	5.
1,1-Dichloroethylene	ND	ND	102.	5.
Methylene Chloride	ND	ND	98.	5.
Trans-1,2-Dichloroethylene	ND	ND	82.	5.
1,1-Dichloroethane	ND	ND	88.	5.
Chloroform	ND	ND	91.	5.
1,1,1-Trichloroethane	ND	7.1	109.	5.
Carbon Tetrachloride	ND	ND	98.	5.
1,2-Dichloroethane	ND	ND	90.	5.
Trichloroethylene	ND	ND	101.	5.
1,2-Dichloropropane	ND	ND	88.	5.
Dichlorobromomethane	ND	ND	85.	5.
Trans-1,3-Dichloropropene	ND	ND	88.	5.
Cis-1,3-Dichloropropene	ND	ND	90.	5.
1,1,2-Trichloroethane	ND	ND	92.	5.
Tetrachloroethylene	ND	ND	98.	5.
Dibromochloromethane	ND	ND	81.	5.
Bromoform	ND	ND	81.	5.
1,1,2,2-Tetrachloroethane	ND	ND	102.	5.

All results in ug/kg.
ND = Not Detected

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 601

Laboratory Sample Nos.	710691	710695	DETECTION LIMIT
Client Identification	T1	MB	(ug/l)
Chloromethane	ND	ND	1.0
Vinyl Chloride	ND	ND	1.0
Bromomethane	ND	ND	1.0
Chloroethane	ND	ND	1.0
Dichlorodifluoromethane	ND	ND	1.0
Trichlorofluoromethane	ND	ND	0.5
1,1-Dichloroethylene	ND	ND	0.5
Methylene Chloride	ND	ND	0.5
Trans-1,2-Dichloroethylene	ND	ND	0.5
1,1-Dichloroethane	ND	ND	0.5
Chloroform	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	0.5
Carbon Tetrachloride	ND	ND	0.5
1,2-Dichloroethane	ND	ND	0.5
Trichloroethylene	ND	ND	0.5
1,2-Dichloropropane	ND	ND	0.5
Dichlorobromomethane	ND	ND	0.5
Trans-1,3-Dichloropropene	ND	ND	0.5
Cis-1,3-Dichloropropene	ND	ND	0.5
1,1,2-Trichloroethane	ND	ND	0.5
Tetrachloroethylene	ND	ND	0.5
Dibromochloromethane	ND	ND	0.5
Bromoform	ND	ND	0.5
1,1,2,2-Tetrachloroethane	ND	ND	0.5

All results in ug/l.
ND = Not Detected

REPORTED BY _____
Kenneth Pang

KP/pb

cc: Howard Edde

am test inc.
14603 N.E. 87th St. • REDMOND, WASHINGTON 98052 • 206/885-1664

ANALYSIS REPORT

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney
Corner of B & 16th Streets
Hoquiam, WA 98550

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 8240

Laboratory Sample Nos.	710655	710655 Spike	Blank	DETECTION LIMIT
Client Identification	2B	(%)		(ug/kg)
Benzene	ND	87.	ND	15.0
Bromodichloromethane	ND	89.	ND	15.0
Bromoform	ND	93.	ND	15.0
Bromomethane	ND	77.	ND	15.0
Carbon Tetrachloride	ND	82.	ND	15.0
Chlorobenzene	ND	88.	ND	15.0
Chloroethane	ND	80.	ND	15.0
2-Chloroethylvinyl Ether	--	--	--	--
Chloroform	ND	96.	ND	15.0
Chloromethane	ND	75.	ND	15.0
Dibromochloromethane	ND	79.	ND	15.0
Dichlorodifluoromethane	ND	83.	ND	15.0
1,1-Dichloroethane	ND	83.	ND	15.0
1,2-Dichloroethane	ND	88.	ND	15.0
1,1-Dichloroethylene	ND	92.	ND	15.0
Trans-1,2-Dichloroethylene	ND	78.	ND	15.0
1,2-Dichloropropane	ND	89.	ND	15.0
Cis-1,3-Dichloropropene	ND	85.	ND	15.0
Trans-1,3-Dichloropropene	ND	81.	ND	15.0
1,2-Dichloropropylene	ND	72.	ND	15.0
Ethylbenzene	ND	82.	ND	15.0
Methylene Chloride	ND	110.	ND	15.0
1,1,2,2-Tetrachloroethane	ND	93.	ND	15.0
Tetrachloroethene	78.4	91.	ND	15.0
Toluene	ND	81.	ND	15.0
1,1,1-Trichloroethane	ND	81.	ND	15.0
1,1,2-Trichloroethane	ND	88.	ND	15.0
Trichloroethylene	95.1	80.	ND	15.0
Trichlorofluoromethane	ND	83.	ND	15.0
Vinyl Chloride	530.	105.	ND	15.0
Surrogate Standards (% Recovery)				
D-5 Chlorobenzene	85.	80.	90.	-
d-Chloroform	120.	90.	89.	-
1,4-Dichloroethane D-4	92.	88.	94.	-
Amount Spiked (ug)	100.	100.	100.	-

All results in ug/kg.
ND = Not Detected.

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 624

Laboratory Sample Nos.	710694	710694 Spike	Blank	DETECTION LIMIT*
Client Identification	11C-H_2O	(%)		(ug/l)
Benzene	ND	89.	ND	500.
Bromodichloromethane	ND	92.	ND	500.
Bromoform	ND	90.	ND	500.
Bromomethane	ND	92.	ND	500.
Carbon Tetrachloride	ND	83.	ND	500.
Chlorobenzene	ND	77.	ND	500.
Chloroethane	ND	89.	ND	500.
2-Chloroethylvinyl Ether	--	--	--	--
Chloroform	ND	90.	ND	500.
Chloromethane	ND	83.	ND	500.
Dibromochloromethane	ND	90.	ND	500.
Dichlorodifluoromethane	ND	92.	ND	500.
1,1-Dichloroethane	ND	83.	ND	500.
1,2-Dichloroethane	ND	85.	ND	500.
1,1-Dichloroethylene	ND	91.	ND	500.
Trans-1,2-Dichloroethylene	ND	85.	ND	500.
1,2-Dichloropropane	ND	71.	ND	500.
Cis-1,3-Dichloropropene	ND	88.	ND	500.
Trans-1,3-Dichloropropene	ND	96.	ND	500.
1,2-Dichloropropylene	ND	90.	ND	500.
Ethylbenzene	ND	75.	ND	500.
Methylene Chloride	ND	120.	ND	500.
1,1,2,2-Tetrachloroethane	ND	86.	ND	500.
Tetrachloroethene	174,300.	**.	ND	500.
Toluene	ND	91.	ND	500.
1,1,1-Trichloroethane	ND	90.	ND	500.
1,1,2-Trichloroethane	ND	94.	ND	500.
Trichloroethylene	7,560.	**.	ND	500.
Trichlorofluoromethane	ND	73.	ND	500.
Vinyl Chloride	1,450.	112.	ND	500.

Continued . . . . .

CLIENT: Most Western Laundry & Dry Cleaners, Inc.

DATE RECEIVED: 8/25/87

DATE REPORTED: 9/17/87

REPORT TO: Mike Bonney

GC ANALYSIS OF PURGEABLE HALOCARBONS BY EPA METHOD 624

Laboratory Sample Nos.	710694	710694 Spike	Blank	DETECTION LIMIT
Client Identification	11C-H_2O	(%)		(ug/kg)
Surrogate Standards (% Recovery)				
D-5 Chlorobenzene	88.	90.	82.	-
d-Chloroform	79.	84.	83.	-
1,4-Dichloroethane D-4	93.	90.	89.	-
Amount Spiked (ug)	100.	100.	100.	-

All results in ug/l.
ND = Not Detected.
*Higher Detection Limit due to required dilutions.
**Concentration of sample too high for accurate spike recovery.

REPORTED BY _____
John A. Hicks

JAH/pb

cc: Howard Edde

EXHIBIT E
Consent Order No. DE 86-S149

ANDREA BEATTY RINIKER
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
7272 Cleanwater Lane LU-11 • Olympia Washington 98504-6811 • (206) 753-2353

April 23, 1987

Mike Bonney
Most Western Laundry
P. O. Box 636
Hoquiam, Washington 98550

Dear Mr. Bonney:

Most Western Laundry, No. DE 86-S149

Enclosed is the original signed Consent Order for your records. As per my December 17, 1986 letter to Howard Edde, Inc. (see enclosed) the approval of the sampling plan, submitted November 3, 1986, has been finalized with Ecology's signature of the Consent Order. Please sign and return the enclosed Certificate of Compliance when the terms of the Consent Order have been met.

Mal Murphy's formal request for a delay in implementing the terms of the Consent Order will be given full consideration once all pertinent information has been forwarded to the Department. Ecology and the Attorney General's Office will confer to evaluate this information.

Should a delay be judged appropriate, given the nature of the circumstance presented by Most Western, the terms of the Order can be formally amended by written mutual agreement. Ecology looks forward to settling this matter in a timely fashion.

Sincerely,

Paul R Stasch

Paul Stasch
Hazardous Waste Inspector

PS:sf(1/E2)

ACCEPTANCE OF SERVICE

CLERK'S STAMP

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY
Olympia, Washington

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Complainants, v. MOST WESTERN LAUNDRY AND DRY CLEANING, of Hoquiam, Washington, #WAD027325018, Respondent.	NO. DE 86-S149 CONSENT ORDER

I.

PRELIMINARY STATEMENT

This proceeding for the execution of a Consent Order is initiated pursuant to the Hazardous Waste Disposal Act of 1976, as amended, RCW Chapter 70.105, RCW Chapter 90.48 and the federal Resource Conservation and Recovery Act (RCRA) of 1976, as amended. The Complainant is the State of Washington Department of Ecology. The respondent is Most Western Laundry and Dry Cleaning, Inc.

II.

FINDINGS

The Department of Ecology (Ecology) asserts that the respondent, has violated one or more of the provisions of RCW

KENNETH O. EIKENBERRY, ATTORNEY GENERAL
Jeffrey S. Myers
Assistant Attorney General
Dept. of Ecology M/S PV-11
459-6134
Lacey Wa. 98503
Telephone

Chapter 70.105 and RCW Chapter 90.48, and the regulations promulgated thereunder, as set forth below.

1. Respondent has operated a facility located at 16th and B Street, Hoquiam, Washington and began their industrial dry cleaning operation and generation of waste tetrachloroethylene in 1978. The dry cleaning operation and generation of waste tetrachloroethylene ceased (in 1984) approximately two years ago.

2. In response to a complaint, an Ecology inspection of the facility was conducted for compliance with the Dangerous Waste Regulations WAC 173-303, on September 28, 1984. This inspection showed that waste tetrachloroethylene sludges were stored in open unlabeled containers and overflowing onto the ground near the plant building. Stains in the area suggest a history of spills and contamination of the storm sewer and ground water may have occurred.

3. Samples were taken and the analysis of the waste sludge indicate it is a toxic dangerous waste (#WT01), persistent dangerous waste (#WP01) and is a listed nonspecific source (#F002). Furthermore, the waste may be present in quantities sufficient to be designated as an extremely hazardous waste.

4. Due to the extent of noncompliance of waste handling procedures, spills of extremely hazardous wastes to the environment and the potential for adverse impacts to human health and the environment, an order (No. DE 84-622) was issued which required compliance with RCW 70.105 and WAC 173-303.

5. Following issuance of this order, a complaint was lodged by an employee. Upon inspection, violations of RCW 90.48 and 70.105 were observed by Ecology. A penalty was then issued (No. DE 84-687). This penalty was satisfied by stipulation and agreed order of dismissal, PCHB No. 85-33.

6. Ecology issued order (No. DE 85-370) requiring the respondent to undertake and complete, with a fixed schedule, an investigation to define existing contamination at the facility.

7. The respondent retained Howard Edde, Inc. as their engineering consultant to submit a sampling plan and schedule for review by Ecology. The original plan was not accepted by Ecology and a revised plan was later submitted. After further modification a sampling plan was agreed to by the parties to be implemented pursuant to the terms hereof.

III.

CONSENT ORDER

The respondent consents to comply in full and to settle this matter on the terms and conditions set forth in this document as follows:

1. Most Western Laundry neither admits nor denies the facts set forth in this Order and neither admits nor denies any conclusions of law set forth in this order. Nevertheless, in satisfaction of the obligations created by orders DE 84-687 and 85-370, Western Laundry agrees to comply with the terms and conditions of this order.

2. Completion of the new sampling plan and schedule and delivery to Ecology by November 3, 1986 by certified mail.

3. Within ten (10) working days of receiving written approval by Ecology of the sampling plan and schedule as amended, implementation of the sampling regime shall be initiated. Sampling may be subject to equipment availability and suitable weather conditions. Five (5) working days prior to the commencement of this sampling, Ecology will be notified by telephone of the intention to commence.

4. Within sixty (60) days of sample collection, the analytical results from the testing laboratory and the engineering consultant's recommendation for remedial action must be submitted for Ecology's approval by certified mail. The engineering consultant shall also submit a list of potential contractors qualified to perform corrective action for Ecology's approval.

5. Within fifteen (15) days of receipt of written approval from Ecology on the recommendation, a qualified contractor, chosen by Most Western Laundry, and approved by Ecology, shall begin corrective action, if any is required, and shall proceed to completion in a prompt manner. Should adverse weather conditions or nonavailability of a qualified cleanup contractor present mitigating circumstances, Ecology may agree to delay excavation to protect human health and the environment.

6. The parties agree to reserve the question of whether ground water monitoring will be required pending completion of

testing and receipt of the engineering consultant's report. At such time, Ecology shall determine whether monitoring is necessary.

7. The parties agree to abide by the terms of this order and not to contest the conditions set forth herein. Shall the conditions set forth in this order not be substantially followed, a penalty may be issued by Ecology.

8. If Most Western objects to any Ecology notice of disapproval, proposed modification, or decision made pursuant to this Consent Order, it shall notify Ecology in writing of its objections within fourteen (14) days from receipt of such notice. Thereafter the parties shall confer in an effort to resolve the dispute. If agreement cannot be reached on the dispute within fourteen (14) days after receipt by Ecology of such objections, the state shall promptly provide a written statement of its decision to Most Western.

The decision of Ecology pursuant to this dispute resolution procedure shall not be appealable pursuant ch. 43.21B RCW to the Pollution Control Hearings Board. However, either party may commence action in the Superior Court of the State of Washington, to enforce the terms of this Order. The parties stipulate that venue for any such action shall lie in Thurston County Superior Court, Olympia, Washington.

9. The terms of the order may be formally amended by written mutual agreement of the parties.

By the following signature, the respondent hereby consents to the terms and conditions herein stated:

Dated this 25 day of MARCH, 1987.

For Respondent
Mike Bonney (Owner/Manager)
Most Western Laundry and Dry Cleaners, Inc.

IV.

ENTRY OF FINAL CONSENT ORDER

It is ordered, as set forth above, this order, including each and every portion hereof, shall become effective immediately.

Dated this 24th day of April, 1987.

Clark G. Haberman, Regional Manager
Southwest Regional Office
Department of Ecology

Please complete and return this form to Paul Stasch, Department of Ecology, Southwest Regional Office, 7272 Cleanwater Lane, Mail Stop LU-11, Olympia, Washington 98504.

CERTIFICATE OF COMPLIANCE

As a legal representative of Most Western Laundry and Dry Cleaning, Inc., I certify that to the best of my knowledge, the compliance status at our hazardous waste facility located in Hoquiam, Washington, Facility I.D. No. WAD 027325018 is as shown below.

Items of Noncompliance	Category I, II, III	Compliance Date	Compliance Status (Check One) Complied	Not Complied	Comments
Conditions of Consent Order					
Condition Number 1		immediately			
Condition Number 2		November 3, 1986			
Condition Number 3		as defined by the terms of the Consent Order			
Condition Number 4		as defined by the terms of the Consent Order			
Condition Number 5		as defined by the terms of the Consent Order			
Condition Number 6		Immediately			

_____
(Signature)

_____
(Printed Name)

_____
(Title)

_____
(Date)

EXHIBIT F
1988 Site Inspection Report For
Most Western Laundry and Dry Cleaning

Bob Kent

FEB [illegible]

EPA-WOO

SITE INSPECTION REPORT FOR
MOST WESTERN LAUNDRY AND DRY CLEANING
HOQUIAM, WASHINGTON

TDD F10-8808-19
PAN FWA0596SA

Report Prepared by: Ecology and Environment, Inc.
Date: December 1988

Submitted to: J.E. Osborn, Regional Project Officer
Field Operations and Technical Support Branch
U.S. Environmental Protection Agency
Region X
Seattle, Washington

ecology and environment, inc.
101 YESLER WAY, SEATTLE, WASHINGTON, 98104, TEL. 206/624-9537
International Specialists in the Environment
recycled paper

ecology and environment, inc.
101 YESLER WAY, SEATTLE, WASHINGTON, 98104, TEL. 206/624-9537
International Specialists in the Environment

MEMORANDUM

DATE: December 14, 1988

TO: John Osborn, FIT-RPO, USEPA, Region X

THRU: Jeffrey Villnow, FIT-OM, E & E, Seattle JV

FROM: Kenneth Stein, FIT-SM, E & E, Seattle KS

SUBJ: Site Inspection Recommendations
Most Western Laundry and Dry Cleaners
Hoquiam, Washington

REF: TDD F10-8808-19
PAN FWA0596SA

CC: William Glasser, HWD-SM, USEPA, Region X
Lynn Guilford, FIT-PM, E & E, Seattle

Based on the information received during the Most Western Laundry and Dry Cleaners (Most Western) Site Inspection, additional work is recommended under CERCLA/SARA. Existing file information indicates that on-site soil remains contaminated despite recent removal efforts, and the extent of groundwater contamination in the site vicinity has not yet been determined. Therefore, E & E makes the following recommendations:

- Groundwater samples should be collected from recently installed monitoring wells to better determine the extent of groundwater contamination.
- Additional soil samples should be collected to determine the vertical extent of soil contamination.
- All remaining contaminated soils should be removed.
- The site should be secured to lessen potential public health threats.

There has been a separate investigation of the Hoquiam Landfill which routinely received chlorinated solvent sludges generated by Most Western.

Enclosures

SITE INSPECTION REPORT
MOST WESTERN LAUNDRY AND DRY CLEANERS
HOQUIAM, WASHINGTON
TDD F10-8808-19
PAN FWA0596SA

Site Name/Address

Most Western Laundry and Dry Cleaners
P.O. Box 636
Hoquiam, Washington 98550

Site Inspection Participants

Kenneth Stein, Field Investigator, E & E, Seattle, Washington
(206)624-9537

Lynn Guilford, Field Investigator, E & E, Seattle, Washington
(206)624-9537

Principal Site Contacts

Paul Stash, Project Manager, Washington Department of Ecology,
Olympia (206)586-2713

DISCLAIMER

This report has been prepared by Ecology and Environment, Inc. under EPA Contract 68-01-7347 and reviewed and approved for public release by the U.S. Environmental Protection Agency (EPA). Mention of commercial products does not constitute endorsement by the U.S. Government. Editing and technical content of this report are the responsibility of Ecology and Environment, Inc., Seattle, Washington and do not necessarily reflect the views or policies of the EPA.

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ABSTRACT

Pursuant to U.S. Environmental Protection Agency (EPA) Contract Number 68-01-7347 and Technical Directive Document (TDD) Number F10-8808-19, a Screening Site Inspection of the Most Western Laundry and Dry Cleaners Site, located in Hoquiam, Washington was conducted between November and December 1988. As a part of this inspection, EPA CERCLIS site files and State of Washington files were examined.

Most Western Laundry and Dry Cleaners (Most Western) is located in Hoquiam, Washington, approximately 500 feet east of the Hoquiam River and 1/2 mile north of Grays Harbor. Most Western operated a dry cleaning machine from 1979 to 1985 which used the chlorinated solvent tetrachloroethene as its primary cleaning agent (laundering services are still offered). Washington Department of Ecology (Ecology) sampling efforts between September 1984 and May 1985 indicated widespread chlorinated solvent contamination of on-site soil. Ecology's primary concern was that contaminated groundwater and storm water runoff would impact the Hoquiam River. Therefore, Ecology required that Most Western conduct further studies to better define the extent of contamination and take any necessary remedial action. Most Western removed contaminated soil in July 1988, however, on-site soil and groundwater remain contaminated.

1.0 INTRODUCTION

Pursuant to U.S. Environmental Protection Agency (EPA) Contract No. 68-01-7347 and Technical Directive Document (TDD) No. F10-8808-19 Ecology and Environment, Inc. (E & E) conducted a Screening Site Inspection (SSI) of the Most Western Laundry and Dry Cleaners (Most Western) Site located in Hoquiam, Washington. The EPA Site Inspection process is intended to evaluate actual or potential environmental or public health hazards at a particular site relative to other sites across the nation for the purpose of identifying remedial action priorities. The Screening Site Inspection represents the initial phase of the SI process and is intended to collect sufficient data to enable evaluation of the site's potential for inclusion on the National Priorities List (NPL) and, for those sites determined to be NPL candidates, establish priorities for additional action. The SI process does not include extensive or complete site characterization, contaminant fate determination, or quantitative risk assessment.

This document presents a summary of information collected during the Most Western SSI. Included are descriptions of the project objectives and scope (Section 2.0), site operations and environmental characteristics (Section 3.0), and inspection conclusions (Section 4.0).

2.0 PROJECT OBJECTIVES AND SCOPE

As mentioned, a Screening Site Inspection is primarily intended to gather sufficient data to enable evaluation of a site's potential for inclusion on the National Priorities List. Accordingly, the following objectives were defined for the Most Western SSI:

1. Define/evaluate site operations and waste characteristics.

2. Identify/evaluate potential contaminant transport pathways.

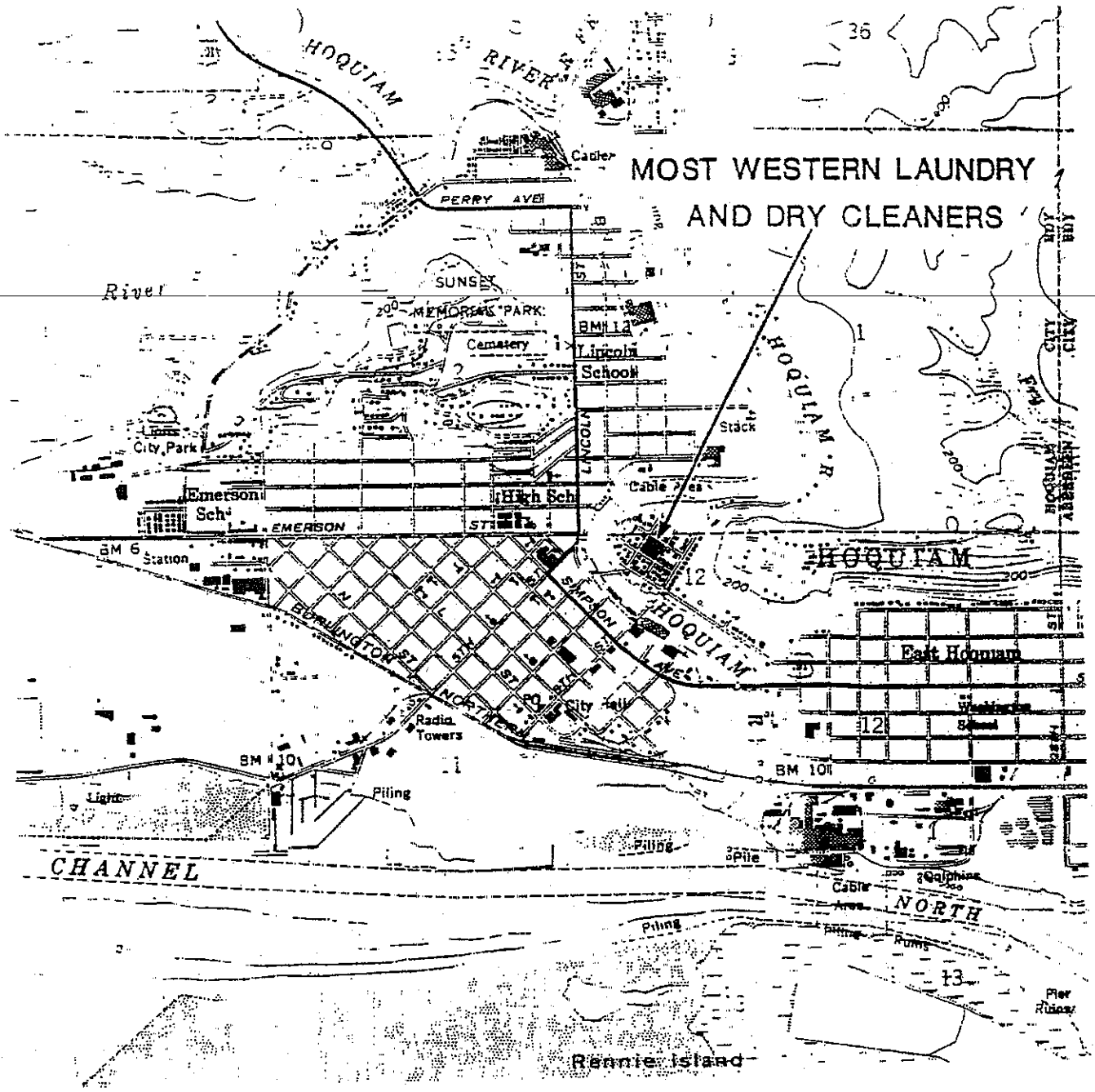
3. Identify potential contaminant receptors.

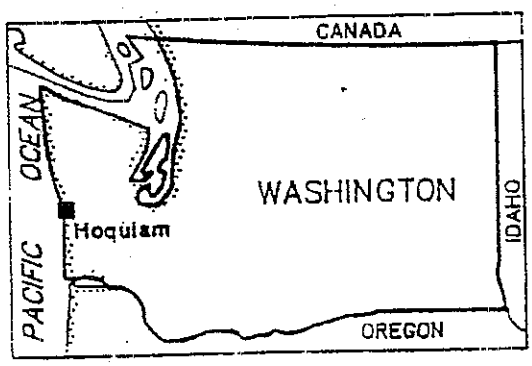
These objectives were met by reviewing EPA and Washington Department of Ecology (Ecology) files and interpreting the information in light of EPA's preremedial program policies and objectives.

3.0 SITE OPERATIONS AND ENVIRONMENTAL CHARACTERISTICS

3.1 Site Location and Description

Most Western is located in the City of Hoquiam, Washington, approximately 2 miles west of Aberdeen, at the east end of Grays Harbor on the Olympic Peninsula. The legal description of the site is the NE 1/4 of Section 11, Township 17N, Range 10W, at 47°58'45" north latitude and 123°52'45" west longitude (Figure 1) (USGS 1973). The mailing address is P.O. Box 636, Hoquiam, Washington 98550 (Ecology 1988).





ecology & environment, Inc.	
Job: F10-8808-19	Waste Site: WA 0596
Drawn by: B.T.	Date: Nov. 30, 1988

FIGURE 1
LOCATION MAP
MOST WESTERN LAUNDRY AND DRY CLEANERS
Hoquiam, WA

Most Western lies approximately 500 feet east of the Hoquiam River in the center of a 1/4-square mile mixed residential/business area. This area is bounded by the Hoquiam River on the north, west, and south and by a 200-foot topographic ridge on the east (Figure 1). Hoquiam's city center, and approximately 90 percent of the city's population of 9,700, is located west of the river. Most of the area outside of Hoquiam within a 3-mile radius of the site is forested (USGS 1973).

Most Western is located on the southwest corner of B and 16th Streets. There is only one building on site. An alley and a vacant lot border the remaining two sides (Figure 2). The dry cleaning area occupied the southeast corner of the building from 1979 to 1985; a tetrachloroethene storage tank was located just outside (Figure 2). A tetrachloroethene dumpster area was located on the southwest corner of the property (Figure 2) (HEI 1986). The site is easily accessible (Stash 1988).

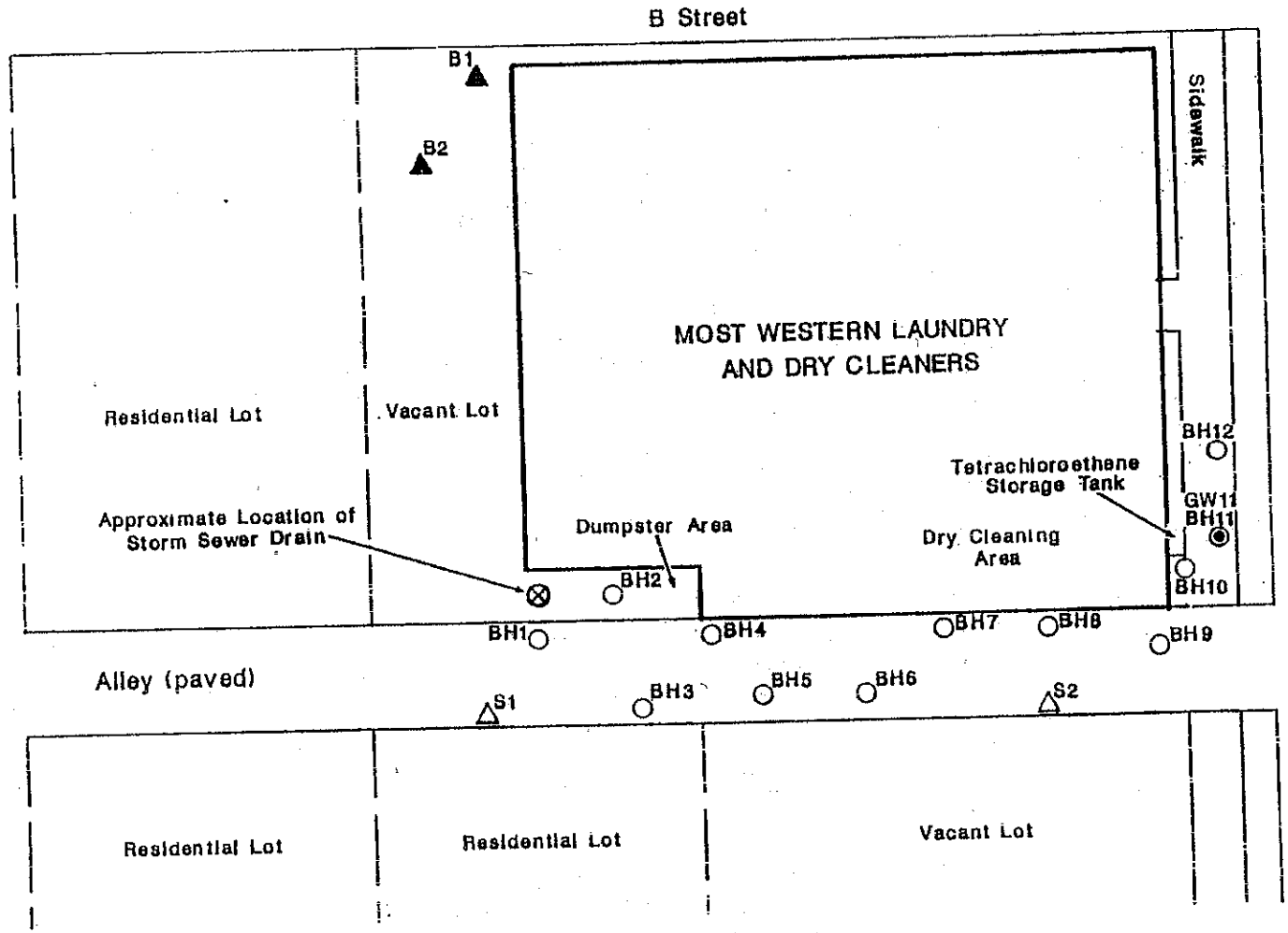
3.2 Site Operations and Waste Characteristics

Mr. Michael Bonney has owned and managed Most Western since 1981 and was the general manager for the previous owners for 17 years. Most Western began laundry operations in the early 1900s and introduced industrial dry cleaning services in 1979. Dry cleaning operations were discontinued in 1985, however, the business still does commercial and industrial laundering (Ecology 1988).

The dry cleaning unit used the chlorinated solvent tetrachloroethene as its cleaning agent and had two distillers that recycled used tetrachloroethene. The dry cleaning machine operated approximately 6 hours per day, 5 days per week, and produced approximately 72 pounds of tetrachloroethene sludge each month. It is estimated that Most Western generated 5,000 pounds of tetrachloroethene sludge between 1979 and October 1984 (Ecology 1988). Tetrachloroethene is a listed dangerous waste under Washington's Dangerous Waste Regulations (WAC 173-3-9904), a listed hazardous waste under RCRA (40 CFR S261.31), and a listed hazardous substance under CERCLA (40 CFR S302.4).

Prior to an Ecology investigation in 1984, Mr. Bonney disposed of the tetrachloroethene sludge in a dumpster provided by the City of Hoquiam. The dumpster was located outside the southwest corner of the building (Figure 2). Mr. Bonney claims that he received permission from the city to use the dumpster for tetrachloroethene disposal. The city would pick up the dumpster and empty it into the Hoquiam Landfill. It is not known how often the dumpster was emptied. EPA has conducted separate investigations at the Hoquiam Landfill (Ecology 1988).

In September 1984, Ecology conducted a dangerous waste inspection of Most Western and found that the dumpster used to dispose of spent tetrachloroethene was open, unlabeled, unsecured (no protective fencing), and overflowing with tetrachloroethene sludge. Stained soil in the dumpster area indicated that tetrachloroethene sludges had been spilled on the ground and poured down a storm sewer drain located less than 20 feet from the building (Figure 2). The storm sewer drain leads directly to the Hoquiam River, approximately 500 feet east of the site.



LEGEND

- BH1 — Borehole sample
- S1 — Surface soil sample
- GW11 — Groundwater sample
- B1 — Background sample

Note: Sampling conducted by Howard Edde, Inc., August, 1987

ecology & environment, Inc.	
Job: F10-8808-19	Waste Site: WA 0596
Drawn by: B.T.	Date: Nov. 29, 1988

FIGURE 2
SITE MAP WITH SAMPLE LOCATIONS
MOST WESTERN LAUNDRY AND DRY CLEANERS
Hoquiam, WA

Analytical results of soil and groundwater samples indicated that, in addition to tetrachloroethene, other solvents associated with the dry cleaning process including 1,1,1-trichloroethane, trichloroethene, 1,2-trans-dichloroethene, vinyl chloride, and chloroform, were also present on site (Ecology 1988).

3.3 Potential Contaminant Transport Pathways/Receptors

3.3.1 Surface Water

There are two main surface water features within a 3-mile radius of Most Western: the Hoquiam River and Grays Harbor. Both features are tidally influenced. The Hoquiam River lies approximately 500 feet to the north, west, and south of the site and empties into Grays Harbor approximately 1/2 mile south of the site (Figure 1). The Little Hoquiam River and the East Fork of the Hoquiam River flow into the main river approximately 1 mile north of the site (USGS 1973).

The City of Hoquiam (population approximately 9,700) obtains its potable water supply from three surface sources upgradient of the site: Davis Creek (primary source), East Fork of the Hoquiam River (secondary source), and the Little Hoquiam River (emergency source). Aberdeen (population approximately 18,000) also obtains its public water supply from upgradient surface sources (Ecology 1988). The Hoquiam River and its tributaries are also used for irrigation and recreation upgradient of the site. Downgradient of the site, the Hoquiam River and Grays Harbor are used for recreation only. There are no known surface water intakes downstream of the site (Ecology 1988).

Contamination resulting from dry cleaning operations at Most Western could enter the Hoquiam River and Grays Harbor via groundwater or the municipal storm sewer system. Shallow groundwater in the site vicinity probably flows southwest into the Hoquiam River just before the river empties into Grays Harbor (HEI 1986). A storm sewer drain located in the dumpster area approximately 20 feet from the laundry building leads directly to the Hoquiam River (Figure 2) (HEI 1986).

3.3.2 Hydrogeology

Most Western is underlain by alluvial sediments deposited by the Hoquiam River. Sediments deposited during the Pleistocene era were eroded by the Hoquiam River and redeposited at the river's mouth, creating a long sand spit that underlies most of Hoquiam (Ecology 1988).

Fill material, reportedly mixed with dredge spoils from the Hoquiam River and wood chips, comprise the top 3 to 5 feet of soil beneath much of Hoquiam (including the site) (Ecology 1988). Below the fill is approximately 30 feet of silt and sandy silt layers with interbedded lenses of silt and peat. Approximately 20 feet of interbedded silty sand and gravel lie beneath the silt horizon (HEI 1986; Ecology 1988)

The depth to groundwater below the site fluctuates between 3 and 8 feet, depending on the season, and is possibly tidally influenced.

Shallow groundwater probably flows southwest and discharges into the Hoquiam River upstream of the river mouth. Groundwater velocity is not known (HEI 1986).

The cities of Hoquiam and Aberdeen do not use groundwater for their public water supplies. The only private well within a 3-mile radius of the site is used by a high school solely for heating system purposes. This well is located approximately 1.5 miles east of the site on the other side of the Hoquiam River (Ecology 1988).

3.3.3 Air

Because on-site surface soils contain chlorinated solvents, contamination of adjacent properties via airborne particulates is possible. There is also potential for air contamination due to the volatile nature of the contaminants. The population within a 3-mile radius of the site is approximately 13,500.

3.4 Investigative/Regulatory History

In response to a citizen complaint, Ecology conducted a dangerous waste inspection of Most Western on September 27-28, 1984 (see Section 3.1 for Ecology's site description). Ecology noted numerous violations of Washington's Dangerous Waste Regulations (WAC 173-303) including unlawful disposal of dangerous waste (tetrachloroethene sludges spilled on the ground and sent to Hoquiam landfill); discharge of dangerous waste to waters of the state (sludges dumped down a storm drain that leads to the Hoquiam River); improper storage of dangerous waste (unlabeled dumpsters); and failure to comply with notification, documentation, and planning requirements imposed on generators of dangerous waste (Ecology 1988).

Ecology collected several samples between September 27 and October 9, 1984, to determine the types and concentrations of on-site contaminants (Table 1). The EPA Region X laboratory in Manchester, Washington performed all chemical analyses. The analytical results indicated the presence of tetrachloroethene (65,000,000 ug/kg) and 1,1,1-trichloroethane (39,000 ug/kg) in dark spill material near the storm drain adjacent to Most Western; tetrachloroethene (65,000,000 ug/kg), 1,1,1-trichloroethane (180,000 ug/kg), and 1,2-trans-dichloroethene (110,000 ug/kg) in lint/soils adjacent to the dumpster area; tetrachloroethene (40 ug/L) and 1,2-trans-dichloroethene (30 ug/L) in the sanitary sewer serving Most Western; tetrachloroethene (22,000,000 ug/kg) inside the storm drain adjacent to Most Western; and tetrachloroethene (36 ug/L), 1,1,1-trichloroethane (13 ug/L), and 1,2-trans-dichloroethene (950 ug/L) in the storm drain at 15th and Riverside Streets (Ecology 1988).

On October 12, 1984, Ecology hand-delivered Order DE 84-622 to Mr. Bonney which required Most Western to comply with Washington's Dangerous Waste Regulations (Ecology 1988).

In response to an employee complaint, Ecology inspected Most Western again on October 30, 1984, and found that Most Western was still

not in compliance with Washington's Dangerous Waste Regulations. As a result, Ecology issued a $10,000 penalty under Order DE 84-687. The penalty was subsequently lowered after a hearing before the Pollution-Control Board on July 26, 1985. Following issuance of the penalty, dry cleaning operations were discontinued (Ecology 1988).

Ecology collected several more samples between December 17, 1984, and May 9, 1985, to better characterize the extent of contamination (Table 1). Chemical analyses were again performed by EPA's Region X laboratory. On December 17, 1984, Ecology collected samples from a Hoquiam River outfall, and from three Hoquiam River seeps (exact sample locations are not known). The Hoquiam River outfall contained tetrachloroethene (5 ug/L), 1,1,1-trichloroethane (5 ug/L), and 1,2-trans-dichloroethene (20 ug/L), however, there are other possible sources responsible for this contamination. No compounds were detected in the river seeps. On March 11-13, 1985, Ecology collected soil samples at the Hoquiam Landfill (tetrachloroethene sludge was periodically disposed there), and five Hoquiam River/seep samples (exact sample locations are not known). No compounds were detected in the samples. Analytical results from samples collected on May 9, 1985, showed tetrachloroethene (6 ug/L), 1,1,1-trichloroethane (1 ug/L), and 1,2-trans-dichloroethene (50 ug/L) in the Riverside pump station (exact location unknown). Tetrachloroethene (1 ug/L), 1,1,1-trichloroethane (50 ug/L), and 1,2-trans-dichloroethene (3 ug/kg) were also present in a sample obtained from a pump station on 28th Street (exact location unknown) (Ecology 1988).

Ecology's primary concern was that contaminated groundwater and storm water runoff could enter the Hoquiam River and impact the aquatic ecosystem. Therefore, in May 1985, Ecology issued Order DE-370 requiring Most Western to determine the extent of on-site soil and groundwater contamination. In June 1985, Most Western contracted Howard Edde, Inc. (HEI) to submit a sampling plan and a fieldwork schedule to Ecology. After several modifications, Ecology accepted a sampling plan on December 17, 1986 (Ecology 1988).

On April 24, 1987, Ecology issued final Consent Order DE 86-S149 requiring commencement of sampling within 10 days. This consent order was later amended, at Most Western's request, to require commencement of sampling by August 15, 1987 (Ecology 1988).

HEI implemented the sampling plan on August 24, 1987 (HEI 1977). HEI collected two surface soil samples (S1 and S2) and obtained soil samples at 1-, 3-, and 5-foot intervals from 12 boreholes (BH1 through BH12). Two background samples (B1 and B2) were collected from the upper 6 inches of topsoil at the north end of the adjacent vacant lot fronting B Street (owned by Most Western) (HEI 1987). One groundwater sample (GW11) was collected in BH11. No additional groundwater samples were collected because groundwater was not encountered at the remaining sample locations (HEI 1987).

AM-TEST, Inc. Laboratories analyzed all samples for purgeable chlorinated organics using EPA SW 846 Method No. 8010. Because the samples taken from BH10 and BH11 smelled of gasoline, these soil and

TABLE 1

SUMMARY OF ANALYTICAL RESULTS FROM ECOLOGY SAMPLING BETWEEN 9/26/84 AND 5/9/85

Ecology Sample Number	Description	Units	Sample Date	Tetrachloroethene	1,1,1-Trichloroethane	1,2-trans-Dichloroethene
39558	Dark Spill Material near Storm Drain Adjacent to Laundry	ug/kg	09/27/84	65,000,000	39,000	*
39559	Head Works (Treatment Plant)	ug/L	09/27/84	ND	ND	ND
39560	Riverside Pump Station, West Well (Sanitary Sewer Serving Most Western)	ug/L	09/27/84	40	ND	30
409029	Inside Storm Drain Adjacent to Laundry (Sludge)	ug/kg	10/03/84	22,000,000	*	*
409030	Lint/Soils Adjacent to Laundry (Dumpster Area)	ug/kg	10/03/84	65,000,000	*	*
409031	Soil Adjacent to Laundry (Dumpster Area)	ug/kg	10/03/84	1,000,000	180,000	110,000
409032	Inside Dumpster (Sludge)	ug/L	10/03/84	210,000	20,000	20,000
419007	Sediment Discharge to River from Storm Drain at 15th and Riverside	ug/L	10/09/84	36	13	950
419008	Water Discharge to River from Storm Drain at 15th and Riverside	ug/L	10/09/84	2	2	310
449036	Inside Dumpster (Sludge)	ug/L	10/30/84	1,000,000	ND	ND
519008	Hoquiam River Outfall	ug/L	12/17/84	5	5	20
519009	River Seep under Riverside Bridge	ug/L	12/17/84	ND	ND	ND
519010	River Seep North of Riverside Bridge	ug/L	12/17/84	ND	ND	ND
519011	River Seep North of Riverside Bridge by Docks	ug/L	12/17/84	ND	ND	ND
117004	Hoquiam River and Seeps	ug/L	03/13/85	ND	ND	ND
117005	Hoquiam River and Seeps	ug/L	03/13/85	ND	ND	ND
117006	Hoquiam River and Seeps	ug/L	03/13/85	ND	ND	ND
117007	Hoquiam River and Seeps	ug/L	03/13/85	ND	ND	ND
117008	Hoquiam River and Seeps	ug/L	03/13/85	ND	ND	ND
157002	Riverside Storm Drain (water phase of mud)	ug/L	04/08/85	ND	ND	ND
199044	Riverside Pump Station (liquids only)	ug/L	05/09/85	6	1	50
199045	28th Street Pump Station	ug/L	05/09/85	1	50	3

* = Concentration uncertain due to interference by high concentration of tetrachloroethene.
ND = Not detected (detection limits for these samples ranged from 1 to 10 ug/L or ug/kg).

groundwater samples were also analyzed for the presence of petroleum-related compounds. Detection limits for all samples ranged from 5 to 10 ug/kg or ug/L except in samples taken from BH10, BH11, and BH12, where dilution was necessary. For quality assurance/quality control (QA/QC) purposes, AM-TEST ran one duplicate plus one duplicate/spike per every 20 samples for each sample matrix. Sample analyses were completed within 14 days of sample collection. The analytical results of all HEI samples are summarized in Table 2. Contaminants were detected in all borehole and surface soil samples including the background samples (HEI 1987).

Alternative courses of action that HEI identified for Most Western included no action, removal of soil at or above action level concentrations, containment, and contaminant extraction. HEI recommended removal of approximately 110 cubic yards of soil from the area around BH10 and BH11 only (HEI 1987). This recommendation was based on EPA Quality Criteria Fresh and Salt Water Chronic Toxicity Action Levels (Federal Register 1980) multiplied by 10 (Ecology 1984). Because the groundwater in the vicinity of Most Western is not used for drinking, HEI did not use EPA drinking water criteria as cleanup standards. HEI also recommended installing a monitoring well near BH2 (HEI 1987).

After reviewing the analytical data and HEI's recommendations, Ecology sent Mr. Bonney a notice on April 4, 1988, that outlined the following remedial action requirements (Ecology 1988):

- Cleanup soils in the vicinity of BH1, BH2, and BH12 to background levels. Ecology stated that the soils from these areas should be acceptable for disposal at a municipal landfill, however, prior approval from the landfill owner must be received.

- Cleanup soils in the vicinity of BH10 and BH11 to 5,000 ug/kg of tetrachloroethene. Ecology found this level of cleanup to be consistent with the agency's "How Clean is Clean" policy and would result in the cleanup of other chlorinated solvents present in that area. These soils were to be disposed of at a permitted facility such as the Chem Security Site in Arlington, Oregon.

- Install groundwater monitoring wells near BH1, BH6, and BH10 during soil removal.

- Conduct further sampling around the dumpster with a hand auger to better determine the extent of contamination in that area. Ecology required these samples to be collected prior to any soil removal at the site.

On June 16, 1988, one surface soil sample, and one sample at 4 feet below ground surface (bgs) were collected in the dumpster area to better determine the extent of contamination in that area (the identity of the sampler is not known). The surface soil sample contained 501 ug/kg

TABLE 2

SUMMARY OF ANALYTICAL RESULTS OF HOWARD EDDE, INC. SAMPLES
(8/24/87)
(ug/kg)

Sample Type and Location		Chloroform	1,1,1-Trichloroethane	Vinyl Chloride	1,2-trans-Dichloroethene	Tetrachloroethene	Trichloroethene	Total Halogenated Hydrocarbons (%)*
BH-1	1 foot		16.9					
	3 feet		18.9					
	5 feet		14.5					
BH-2	1 foot			282	5.8	112		
	3 feet			11,771	14.9	87		
	5 feet			847	51	2,071		
BH-3	1 foot					36	16.6	
	3 feet							
	5 feet							
BH-4	1 foot							
	3 feet							
	5 feet							
BH-5	1 foot							
	3 feet			12.1				
	5 feet			16.1				
BH-6	1 foot					138	15.2	
	3 feet			41				
	5 feet			22				
BH-7	1 foot					12.7		
	3 feet			24				
	5 feet			95				
BH-8	1 foot					83	5	
	3 feet							
	5 feet							

BH = Borehole
S = Surface soil
B = Background
* = Listed only when greater than 0.01% which per WAC 173-303-102(3). Identifies material which are Dangerous Waste (DW) in Washington State.

TABLE 2
(Continued)

SUMMARY OF ANALYTICAL RESULTS OF HOWARD EDDE, INC. SAMPLES
(8/24/87)
(ug/kg)

Sample	Type and Location	Chloroform	1,1,1-Trichloroethane	Vinyl Chloride	1,2-trans-Dichloroethene	Tetrachloroethene	Trichloroethene	Total Halogenated Hydrocarbons (%)*
BH-9	1 foot					16.4		
	3 feet							
	5 feet					31		
BH-10	1 foot					9,410,900	30,970	0.944
	3 feet		5,310			773,400	5,430	0.078
	5 feet	2,110	2,430			2,664,600	16,960	0.268
BH-11	1 foot	4,287				1,924,500	30,690	0.196
	3 feet					4,819,000	7,565	0.483
	5 feet					4,314,450	88,110	0.440
GW-11 (ug/L)	5 feet			2,195		209,060	6,350	0.022
BH-12	1 foot			903		3,225	271	
	3 feet			6,580		1,220	442	
	5 feet			3,340		1,875	373	
S-1		3.9				13.9		
S-2		3.5				11.8		
B-1						10.7		
B-2						9.7		

BH = Borehole
S = Surface soil
B = Background
* = Listed only when greater than 0.01% which per WAC 173-303-102(3). Identifies material which are Dangerous Waste (DW) in Washington State.

tetrachloroethene, and the 4 feet bgs sample contained 82 ug/kg tetrachloroethene. It is not known if the samples were analyzed for the presence of other compounds (Ecology 1988).

On July 12, 1988, Most Western contracted Crowley Environmental Services, Inc. (CES) to provide removal/remedial services in accordance with Ecology's remedial action requirements (Ecology 1988). CES began excavations in the vicinity of BH10 and BH11 on July 19, 1988 (CES 1988). An HNU organic vapor analyzer was used to determine the initial perimeter of contaminated soil to be removed. A total of five samples were then collected from the side walls and bottom of the excavation to determine if further removal was necessary (the exact size of the excavation is not known). The samples were sent to Laucks Testing Laboratory in Seattle, Washington for "Rush Analyses Tetrachloroethene". Analytical results indicated the presence of tetrachloroethene at the following levels: 3,600,000 ug/kg in the west wall of the excavation, 820,000 ug/kg in the bottom, 200,000 ug/kg in the south wall, 33,000 ug/kg in the north wall, and 19,000 ug/kg in the east wall (CES 1988).

Additional excavation of the west side wall was not possible without threatening the structural integrity of the laundry building. CES stopped excavating at the bottom when groundwater was encountered. No additional samples were collected from the excavation, and no additional soil was removed from the south, north, or east wall. On July 20, 1988, the contaminated soils from the excavation were transported to the Chem Security facility in Arlington, Oregon (CES 1988). The present condition of the excavation is not known. There has been no further removal activity at Most Western (Stash 1988).

CES also installed monitoring wells near boreholes BH1, BH6, and BH10 (CES 1988). These wells have not been sampled or analyzed (Stash 1988). Most Western is currently in the process of locating a local landfill that will accept contaminated soil from the area around BH1, BH2, and BH12 (Stash 1988).

4.0 SUMMARY AND CONCLUSIONS

4.1 Summary

Most Western Laundry and Dry Cleaners is located in Hoquiam, Washington, 2 miles east of Aberdeen, on the Olympic Peninsula. The site lies in a mixed residential/business area approximately 500 feet east of the Hoquiam River and 1/2 mile north of Grays Harbor. Most Western discontinued dry cleaning operations in 1985 but continues to offer laundering services. The dry cleaning unit used tetrachloroethene as its primary cleaning agent.

In September 1984, Ecology inspected Most Western and found that tetrachloroethene sludges had been spilled onto the ground and poured down a storm sewer drain located near the building. Analytical results of samples that Ecology collected between September 1984 and May 1985, indicated that the storm sewer system, on-site soils, and a Hoquiam River outfall were contaminated with chlorinated solvents.

Ecology's primary concern was that contaminated groundwater and storm water runoff would enter the Hoquiam River and impact the aquatic ecosystem (there are no domestic wells in the area). Therefore, in May 1985, Ecology required Most Western to determine the extent of on-site soil and groundwater contamination and take any necessary remedial action. Most Western contracted Howard Edde, Inc. (HEI) to develop a sampling plan which HEI implemented in August 1987. Analytical results of borehole samples and one groundwater sample indicated widespread on-site chlorinated solvent contamination.

In April 1988, after reviewing the analytical data, Ecology sent Mr. Bonney (site owner) a notice outlining specific removal and remedial action requirements and cleanup standards. In July 1988, Crowley Environmental Services (CES) installed three monitoring wells and removed soil from the most contaminated area. The contaminated soil was sent to the Chem Security facility in Arlington, Oregon. Despite this removal effort, the area remains contaminated with chlorinated solvents at levels that exceed Ecology cleanup standards. No monitoring well samples have been collected or analyzed to date. Most Western is currently in the process of locating a local landfill that will accept other on-site contaminated soil.

4.2 Conclusions

- On-site soil remains contaminated with chlorinated solvents despite recent removal efforts. The complete vertical extent of soil contamination is not known because boreholes were only sampled to a depth of 5 feet.

- Since the site is not secured, there is potential for direct contact.

- Previous sampling efforts were inadequate to determine the extent of groundwater contamination. On-site monitoring wells that were installed during soil removal had not been sampled as of November 25, 1988.

- Chlorinated solvents can enter the Hoquiam River via groundwater or the municipal storm sewer system. Since any potentially contaminated water originating at Most Western would enter the river downstream of the public water supply intake, and since no domestic wells exist within a 3-mile radius of the site, the primary concern is contamination of the aquatic ecosystem.

- Because on-site surface soil contains chlorinated solvents, contamination of adjacent properties via airborne particulates is possible. There is also potential for air contamination due to the volatile nature of chlorinated solvents.

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APPENDIX A

SITE INSPECTION REPORT FORM (EPA FORM 2070-13)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION	
01 STATE: WA	02 SITE NUMBER: D027325018

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Moss Western Laundry and Dry Cleaners	P.O. Box 636 (corner of B and 16th Streets)				
03 CITY: Hoquiam	04 STATE: WA	05 ZIP CODE: 98550	06 COUNTY: Grays Harbor	07 COUNTY CODE: 027	08 CONG DIST: 02

09 COORDINATES		10 TYPE OF OWNERSHIP (Check one)
LATITUDE	LONGITUDE	
47°58'45.0"	123°52'45.0"	X A. PRIVATE ___B. FEDERAL ___C. STATE ___D. COUNTY ___E. MUNICIPAL ___F. OTHER ___G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION		
N/A (MO/DAY/YR)	X ACTIVE ___INACTIVE	early 1900s (BEGINNING YEAR)	1988 (ENDING YEAR)	___UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
___A. EPA X B. EPA CONTRACTOR Ecology & Environment, Inc. (E&E) (Name of firm) ___C. MUNICIPAL ___D. MUNICIPAL CONTRACTOR
___E. STATE ___F. STATE CONTRACTOR ___ (Name of firm) ___G. OTHER ___ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
N/A			
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO.**
N/A			
13 SITE REPRESENTATIVES INTERVIEWED	**14 TITLE**	**15 ADDRESS**	**16 TELEPHONE NO.**
Paul Stash	Project Manager	Washington Dept. of Ecology Olympia, Washington	206/586-2713

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
N/A PERMISSION ___ WARRANT	N/A	N/A

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
William Glasser	USEPA/Region X	206/442-7215

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Kenneth Stein	EPA/FIT	E & E	206/624-9537	11/28/88

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- X A. SOLID
- B. POWDER, FINES
- C. SLUDGE
- D. OTHER _____ (Specify)
- E. SLURRY
- X F. LIQUID
- G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS _____
- CUBIC YARDS unknown
- NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- X A. TOXIC
- B. CORROSIVE
- C. RADIOACTIVE
- D. PERSISTENT
- E. SOLUBLE
- F. INFECTIOUS
- G. FLAMMABLE
- H. IGNITABLE
- I. HIGHLY VOLATILE
- J. EXPLOSIVE
- K. REACTIVE
- L. INCOMPATIBLE
- M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS	72 (sludge)	pounds/week	Est. 5,000 lbs sludge between 1979 & 1984
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	Unknown		Tested for halogenated hydrocarbons due
IOC	INORGANIC CHEMICALS			to gasoline smell in groundwater
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	Tetrachloroethene	127-18-4	Dumpster (sludge)	210,000-1,000,000	ug/L
			Soils	up to 65,000,000	ug/kg
			Inside storm drain	22,000,000	ug/L
	1,1,1-trichloroethane	71-55-6	Dumpster (sludge)	up to 20,000	ug/L
			Soils	up to 180,000	ug/kg
			Inside storm drain	unknown	
	1,2-trans-Dichloroethene		Dumpster (sludge)	up to 20,000	ug/L
			Soils	up to 110,000	ug/kg
			Inside storm drain	unknown	
	Trichloroethene		Soils	up to 88,110	ug/kg
	Chloroform		Soils	up to 4,287	ug/kg
	Vinyl Chloride		Soils	up to 2,195	ug/kg
OCC	Total halogenated hydrocarbons		Soils	up to 944	%

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(EPA 1988)
(Ecology 1988)
(Howard Edde, Inc. 1987)

POTENTIAL HAZARDOUS WASTE SITE

SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

EPA

I. IDENTIFICATION	
01 STATE: WA	02 SITE NUMBER: D027325018

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 X A. GROUNDWATER CONTAMINATION — 02 X OBSERVED (DATE: 8/24/87) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 0 — 04 NARRATIVE DESCRIPTION

Groundwater was encountered at a depth of 5 feet in one of 12 boreholes drilled by Howard Edde, Inc., on 8/24/87. Analytical results showed 209,060 ug/L tetrachloroethene, 6,350 ug/L trichloroethene, 2,195 ug/L vinyl chloride, and .022% total halogenated hydrocarbons in the water.

01 X B. SURFACE WATER CONTAMINATION — 02 ___ OBSERVED (DATE:) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: unknown — 04 NARRATIVE DESCRIPTION

Contamination can reach the Hoquiam River and Grays Harbor via two transport pathways, groundwater, and the municipal storm sewer system. Shallow groundwater from below the site probably flows southeast into the Hoquiam River just before the river empties into Grays Harbor. Groundwater and water from a nearby storm drain are contaminated.

01 X C. CONTAMINATION OF AIR — 02 ___ OBSERVED (DATE:) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

Because on-site surface soil contains chlorinated solvents, contamination of adjacent properties via airborne particulates is possible. There is also potential for air contamination due to the volatile nature of chlorinated solvents.

01 ___ D. FIRE/EXPLOSIVE CONDITIONS — 02 ___ OBSERVED (DATE:) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

None reported.

01 X E. DIRECT CONTACT — 02 ___ OBSERVED (DATE:) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

On-site soil is contaminated with chlorinated solvents. Since there is no security, there is potential for direct human contact.

01 X F. CONTAMINATION OF SOIL — 02 X OBSERVED (DATE: 7/19/88) ___ POTENTIAL ___ ALLEGED

03 AREA POTENTIALLY AFFECTED: (Acres) — 04 NARRATIVE DESCRIPTION

Analytical results of the most recent soil samples (taken from the wall of an excavation after some soil was removed) showed up to 3,600,000 ug/kg tetrachloroethene. Other compounds found in on-site soil include trichloroethene, 1,1,1-trichloroethane, vinyl chloride, and 1,2-trans-Dichloroethene.

01 ___ G. DRINKING WATER CONTAMINATION — 02 ___ OBSERVED (DATE:) ___ POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

Drinking water supply comes from upgradient surface sources. There are no domestic wells within a 3-mile site radius.

01 ___ H. WORKER EXPOSURE/INJURY — 02 ___ OBSERVED (DATE:) ___ POTENTIAL ___ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

None reported.

01 X I. POPULATION EXPOSURE/INJURY — 02 ___ OBSERVED (DATE:) X POTENTIAL ___ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: — 04 NARRATIVE DESCRIPTION

On-site soil is contaminated with chlorinated solvents. Since there is no security, there is potential for direct contact. The Hoquiam River is used for recreation and there is potential for contamination to enter the river via groundwater and the municipal storm sewer system.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED)

01 ___ J. DAMAGE TO FLORA 02 ___ OBSERVED (DATE: _____) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

None reported.

01 ___ K. DAMAGE TO FAUNA 02 ___ OBSERVED (DATE: _____) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION (Include name(s) of species)

None reported.

01 X L. CONTAMINATION OF FOOD CHAIN 02 ___ OBSERVED (DATE: _____) X POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

Contamination can enter the Hoquiam River and Grays Harbor via groundwater and the municipal storm sewer system.

01 X M. UNSTABLE CONTAINMENT OF WASTES 02 X OBSERVED (DATE: 7/19/88) ___ POTENTIAL ___ ALLEGED

(Spills/runoff/standing liquids/leaking drums)

03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

Despite soil remove efforts on 7/19/88, analytical results of soil samples indicate soil remains contaminated with chlorinated solvents with no method of containment.

01 X N. DAMAGE TO OFFSITE PROPERTY 02 X OBSERVED (DATE: 8/24/87) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

Analytical results of samples collected by Howard Edde, Inc., on 8/24/87 from soils beneath an adjacent paved alley indicate chlorinated solvent contamination.

01 X O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 X OBSERVED (DATE: 10/3/84) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

During an inspection, Ecology found that tetrachloroethene sludges had been dumped down a storm drain located approximately 20 feet from the building. Analytical results of samples collected from the storm drain on 10/3/84 showed 22,000,000 ug/L tetrachloroethene.

01 X P. ILLEGAL/UNAUTHORIZED DUMPING 02 X OBSERVED (DATE: 8/27/84) ___ POTENTIAL ___ ALLEGED

04 NARRATIVE DESCRIPTION

Ecology conducted a "Dangerous Waste" inspection on 9/27/84 and found that tetrachloroethene sludges were unlawfully dumped down a storm drain 20 feet from the building and unlawfully sent to a local landfill.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None.

III. TOTAL POPULATION POTENTIALLY AFFECTED: unknown

IV. COMMENTS

Although some contaminated soil has been removed (7/19/88), on-site soil remains contaminated with chlorinated solvents. Sampling efforts were inadequate to determine the extent of groundwater contamination.

V. SOURCES OF INFORMATION (Cite specific references. e.g., state files, sample analysis, reports)

(Ecology 1988)
(Howard Edde, Inc. 1986)
(Howard Edde, Inc. 1987)
(Crowley Environmental Services 1988)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
___ A. NPDES				
___ B. UIC				
___ C. AIR				
___ D. RCRA				
___ E. RCRA INTERIM STATUS				
___ F. SPCC PLAN				
___ G. STATE (Specify)				
___ H. LOCAL (Specify)				
___ I. OTHER (Specify)				
X J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
___ A. SURFACE IMPOUNDMENT		
___ B. PILES		
___ C. DRUMS, ABOVE GROUND		
___ D. TANK, ABOVE GROUND		
___ E. TANK, BELOW GROUND		
___ F. LANDFILL		
___ G. LANDFARM		
X H. OPEN DUMP	unknown	
___ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)
___ A. INCINERATION
___ B. UNDERGROUND INJECTION
___ C. CHEMICAL/PHYSICAL
___ D. BIOLOGICAL
___ E. WASTE OIL PROCESSING
___ F. SOLVENT RECOVERY
___ G. OTHER RECYCLING/RECOVERY
___ H. OTHER None (Specify)

05 Other
1 A. BUILDINGS ON SITE

06 AREA OF SITE
1/4 (Acres

07 COMMENTS
In September 1984, Ecology conducted a "Dangerous Waste" investigation and found that a tetrachloroethene dumpster was overflowing and tetrachloroethene sludges had been spilled on the ground and dumped down a nearby storm drain. The tetrachloroethene dumpster had been periodically taken to a local landfill by the City of Hoquiam. Some soil has been removed from the site. The present condition of the excavated area is not known.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
___ A. ADEQUATE, SECURE ___ B. MODERATE ___ C. INADEQUATE, POOR X D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
Tetrachloroethene was overflowing dumpster onto ground. Soils were stained where tetrachloroethene sludges were spilled, area around storm drain was stained with tetrachloroethene sludges.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: X YES ___ NO
02 COMMENTS
On-site soils are contaminated with chlorinated solvents. There is no security/fencing.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

(Ecology 1988)
(EPA 1988)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL
COMMUNITY	A. X	B.
NON-COMMUNITY	C.	D.

02 STATUS	ENDANGERED	AFFECTED	MONITORED
	A.	B.	C. X
	D.	E.	F.

03 DISTANCE TO SITE
A. 2(upstream) (mi)
B. >3 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

___A. ONLY SOURCE FOR DRINKING ___B. DRINKING (Other sources available) ___C. COMMERCIAL, INDUSTRIAL IRRIGATION (Limited other sources available) X D. NOT USED, UNUSABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUNDWATER 0

03 DISTANCE TO NEAREST DRINKING WATER WELL >3 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
3 to 8 (ft)	probably southwest	3 to 8 (ft)	unknown (gpd)	___YES x NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)

There is only one well within a 3-mile site radius. It is used for heating system purposes at a high school.

10 RECHARGE AREA		11 DISCHARGE AREA	
___YES ___NO	COMMENTS	X YES ___NO	COMMENTS Groundwater from below the site probably flows southwest and enters the Hoquiam River just before the river empties into Grays Harbor.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

X A. RESERVOIR, RECREATION DRINKING WATER SOURCE ___B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ___C. COMMERCIAL, INDUSTRIAL ___D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Hoquiam River	___	.1 (mi)
Grays Harbor	___	.5 (mi)
	___	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 9,700	B. 10,000	C. 13,500
NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION
20 (ft)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE
4,000

04 DISTANCE TO NEAREST OFF-SITE BUILDING
20 (ft)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Most Western lies in the center of a 1/4 square mile mixed business/residential area. This area is bounded by the Hoquiam River on the north, west, and south, and by a 200-foot ridge on the east. Hoquiam City Center and 90 percent of its population (9,700) are located on the other side of the Hoquiam River (to the west). The City of Aberdeen (population 18,000) is located 2 miles east. Most of the area outside of Hoquiam within a 3-mile site radius is forested.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE WA	02 SITE NUMBER D027325018

II. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

___A. 10^{-6} - 10^{-8} cm/sec ___B. 10^{-4} - 10^{-6} cm/sec X C. 10^{-4} - 10^{-3} cm/sec ___D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

___A. IMPERMEABLE (Less than 10^{-6} cm/sec) X B. RELATIVELY IMPERMEABLE (10^{-4} - 10^{-6} cm/sec) ___C. RELATIVELY PERMEABLE (10^{-2} - 10^{-4} cm/sec) ___D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
unknown (ft)	>5 (ft)	unknown	

06 NET PRECIPITATION	07 ONE-YEAR 24-HOUR RAINFALL	08 SLOPE SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
16 (in)	3 (in)	1 %	west	1 %

09 FLOOD POTENTIAL
SITE IS IN 100 YEAR FLOODPLAIN

10 X SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5-acre minimum)

ESTUARINE: A. 1 (mi) OTHER: B. .1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
unknown (mi)
ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A. .1 (mi)	B. <.1 (mi)	C. >3 (mi)	D. >3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

Most Western lies in the center of a 1/4 square mile mixed business/residential area, which is bounded by the Hoquiam River on the north, west, and south, and by a 200-foot ridge on the east. Grays Harbor lies 1/2 mile south of the site. Most of the area to the north of the site and within a 3-mile site radius is forested with elevations reaching 400 feet.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(USGS 1973)
(US Department of Commerce, Climatic Atlas of the United States, 1979)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. SAMPLES TAKEN N/A

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL			
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN N/A

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE X GROUND ___ AERIAL

02 IN CUSTODY OF Washington Department of Ecology
(Name of organization or individual)

03 MAPS
___ YES
X NO

04 LOCATION OF MAPS

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Ecology collected and analyzed several samples between September 1984 and May 1985: on-site soil samples (chlorinated solvents detected), samples from on-site storm drain (chlorinated solvents detected), river seep samples (no chlorinated solvents detected), Hoquiam River outfall (chlorinated solvents detected). Howard Edde, Inc., took several borehole samples and one groundwater sample (in August 1987); chlorinated solvents were detected in all samples. Additional soil samples were analyzed during soil removal to determine the area to be excavated. Chlorinated solvents were detected in the bottom and in all four walls of the excavation.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(Ecology 1988)
(EPA 1988)
(Howard Edde, Inc. 1987)
(Crowley Environmental Services 1988)

EPA

ENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE WA	02 SITE NUMBER D027325018

II. CURRENT OWNER(S)			PARENT COMPANY (If applicable)		
01 NAME Mike Bonney	02 D+B NUMBER		08 NAME	09 D+B NUMBER	
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.) P.O. Box 636	04 SIC CODE		10 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	11 SIC CODE	
05 CITY Hoquiam	06 STATE WA	07 ZIP CODE 98550	12 CITY	13 STATE	14 ZIP CODE
01 NAME	02 D+B NUMBER		08 NAME	09 D+B NUMBER	
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	04 SIC CODE		10 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
01 NAME	02 D+B NUMBER		08 NAME	09 D+B NUMBER	
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	04 SIC CODE		10 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	11 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)			IV. REALTY OWNER(S) (If applicable; list most recent first)		
01 NAME Information not available	02 D+B NUMBER		01 NAME	02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER		01 NAME	02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER		01 NAME	02 D+B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE		03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(Ecology 1988)

POTENTIAL HAZARDOUS WASTE SITE

EPA

SITE INSPECTION REPORT

PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE: WA	02 SITE NUMBER: D027325018

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE	08 YEARS OF OPERATION	09 NAME OF OWNER
Mike Bonney		P.O. Box 636		Hoquiam	WA	98550	Early 1900s - 1988	Mike Bonney

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE	08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
Information not available								

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER	12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE	14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(Ecology 1988)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER	
Mike Bonney		
03 STREET ADDRESS (P.O. BOX, RFD #, ETC.)	04 SIC CODE	
P.O. Box 636		
05 CITY	06 STATE	07 ZIP CODE
Hoquiam	WA	98550

III. OFF-SITE GENERATOR(S) N/A

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S) N/A

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(Ecology 1988)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. PAST RESPONSE ACTIVITIES

01 ___ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 X E. CONTAMINATED SOIL REMOVED — 02 DATE 7/19/88 — 03 AGENCY _____
04 DESCRIPTION
Crowley Environmental Services removed some soil from the most contaminated area and disposed of the soil at the Chem Securities Site in Arlington, Oregon.

01 ___ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 X G. WASTE DISPOSED ELSEWHERE — 02 DATE 7/19/88 — 03 AGENCY _____
04 DESCRIPTION
Some soil disposed at Chem Securities site in Arlington, Oregon.

01 ___ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
N/A

II. PAST RESPONSE ACTIVITIES (Continued)

01 ___ R. BARRIER WALLS CONSTRUCTED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ S. CAPPING/COVERING | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ T. BULK TANKAGE REPAIRED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ U. GROUT CURTAIN CONSTRUCTED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ V. BOTTOM SEALED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ W. GAS CONTROL | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ X. FIRE CONTROL | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ Y. LEACHATE TREATMENT | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ Z. AREA EVACUATED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ 1. ACCESS TO SITE RESTRICTED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ___ 2. POPULATION RELOCATED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 X 3. OTHER REMEDIAL ACTIVITIES | 02 DATE 7/19/88 | 03 AGENCY _____
04 DESCRIPTION
Crowley Environmental Services installed three monitoring wells following soil removal activities.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(Crowley Environmental Services 1988)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
WA	D027325018

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION X YES ___ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

9/27-28/84 - Ecology conducted a dangerous waste inspection of Most Western and found several violations of Washington Dangerous Waste Regulations (improper storage and disposal of tetrachloroethene sludge).

10/12/84 - Ecology hand-delivered Order DE 84-622 to owner, Mike Bonney, requiring compliance with Washington's Dangerous Waste Regulations.

10/30/84 - Ecology issued a $10,000 penalty for Most Western's continued noncompliance with Washington's Dangerous Waste Regulations.

5/85 - Ecology issued order DE 370 requiring Most Western to determine extent of on-site soil and groundwater contamination.

4/87 - Ecology issued final Consent Order DE 86-5149 requiring commencement of sampling within 10 days. Order was later amended at Most Western's request to require commencement of sampling by August 15, 1987.

4/88 - Ecology sent letter to owner, Mike Bonney, setting out remedial action requirements.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

(Ecology 1988)

Exhibit G
William Bonney Declaration

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by: Most Western Limited, Inc.	DECLARATION OF WILLIAM BONNEY

I, WILLIAM BONNEY, declare under penalty of perjury under the laws of the state of Washington that the following is true and correct:

1. I am over the age of 18, am competent to testify in a court of law, and voluntarily provide this statement from my own personal knowledge and recollection.

2. I am currently the registered agent of Most Western Limited, Inc. (MWL). My deceased father, Brandon F. Bonney, was the last President and officer of Most Western Limited. I have knowledge of MWL's financial status. I also have knowledge of MWL's previous and current insurance policies.

3. At this time, MWL is not able to undertake remedial action at the Most Western Laundry Site (Site), located at 16th and B Streets, Hoquiam, WA, because MWL does not have sufficient financial assets. The only assets MWL has are the property located at 16th and B Streets, Hoquiam, WA. and a bank account with less than $200 in it.

4. To the best of my knowledge MWL does not have any existing or previous insurance policies or claims that would provide money to MWL and enable MWL to undertake remedial action at the Site.

Signed this 6th day of September 2006, in Hoquiam, Washington.

WILLIAM BONNEY

ATTORNEY GENERAL OF WASHINGTON
Ecology Division
PO Box 40117
Olympia, WA 98504-0117
FAX (360) 586-6760

Exhibit H
Letter Regarding Signatory Authority

September 6, 2006

Department of Ecology
PO Box 47775
Olympia WA 98504 7775

Re: Most Western Limited

Dear DOE:

We are the children of Brandon F. Bonney who died March 12, 2004. Brandon F. Bonney was the shareholder of Most Western Limited. The Department of Ecology has negotiated an Agreed Order relating to Most Western Limited property at 16th & B Streets in Hoquiam, Washington. This letter indicates our consent that the Agreed Order be signed by William Bonney as registered agent on behalf of Most Western Limited. Nothing contained in this letter should be construed as an admission of liability by any of the undersigned.

William Bonney

Janice Carter

Karen Hake

Linda Sain