

3. On January 6, 1991, a break in a sixteen-inch (16") oil transmission pipeline owned by U.S. Oil resulted in the release of an estimated 600,000 gallons of Alaskan crude oil onto the Site, including the easement owned by U.S. Oil and a neighboring bark sort yard.

4. Soil samples were taken at the Site by Ecology on March 11, 1991. The highest concentrations measured from the this sampling program showed levels of Total Petroleum Hydrocarbon (TPH), 95,000 mg/kg; benzene, 110 mg/kg; toluene, 290 mg/kg; ethylbenzene, 51 mg/kg; and total xylenes, 390 mg/kg. Another sample obtained from the Site showed levels of TPH, 16,000 mg/kg; arsenic, 8,200 ug/kg, chromium, 209 mg/kg; and lead, 10 mg/kg. Pursuant to WAC 173-340-745, soil cleanup levels for TPH are 200 mg/kg; benzene, 500 ug/kg; toluene, 40,000 ug/kg; ethylbenzene, 20,000 ug/kg; and total xylenes, 20,000 ug/kg. Other samples obtained from the Site on the same date indicate that there was both horizontal and vertical contamination.

5. Water samples taken by U.S. Oil on May 3, 1991, from the discharge point of the U.S. Oil water treatment system located on the Site showed the following levels of inorganics: arsenic 4.6 ug/L, copper 240 ug/L, lead 40 ug/L, and zinc 4600 ug/L. These levels were all totals. Pursuant to WAC 173-201-047, the marine acute standard for copper is 2.9 ug/L; and for zinc is 95 ug/L. Pursuant to WAC 173-201-047, the Marine Chronic standard for lead is 5.6 ug/L, and for zinc it is 86 ug/L.

6. A sample of water was obtained by U.S. Oil on May 14, 1991, from the sump on Maxwell Way immediately north of the Maxwell Way entrance to the Site. U.S. Oil tested the water sample for total and dissolved constituents respectively and obtained the following results: arsenic 34 ug/L and 32 ug/L; copper 1.6 ug/L and 3 ug/L; lead 6 ug/L and 8.1 ug/L; zinc 170 ug/L and 170

ug/L. Pursuant to WAC 173-201-047, the marine acute standard for copper is 2.9 ug/L; and for zinc is 95 ug/L. Pursuant to WAC 173-201-047, the Marine Chronic standard for lead is 5.6 ug/L, and for zinc it is 86 ug/L.

7. On May 14, 1991, U.S. Oil obtained a sample from their treatment system discharge point. They obtained the following results for total and dissolved constituents respectively: arsenic 3.1 ug/L and 3 ug/L; copper 8.4 ug/L and 6 ug/L; lead 9.1 ug/L and 8.5 ug/L; zinc 290 ug/L and 290 ug/L. Pursuant to WAC 173-201-047, the marine acute standard for copper is 2.9 ug/L; and for zinc is 95 ug/L. Pursuant to WAC 173-201-047, the marine chronic standard for lead is 5.6 ug/L, and for zinc it is 86 ug/L.

8. An oil sample taken by Ecology on June 24, 1991, from an oil/water separator on the Site was analyzed for the following total inorganics. The results were: arsenic 38 mg/kg, cadmium 2.6 mg/kg, chromium 31 mg/kg, copper 47 mg/kg, lead 48 mg/kg, zinc 3500 mg/kg.

9. Results of an Ecology study titled Assessment of Log Sort Yards as Metals Sources to Commencement Bay Waterways, November 1983-June 1984 reported elevated levels of heavy metals in surface water runoff from the Site, and in the adjacent Sitcum Waterway sediment. These heavy metals included arsenic, copper, zinc, and lead (see Exhibit C). The source of these metals has not been determined.

10. Results of a Tetra Tech study titled Commencement Bay/Nearshore Tideflats Feasibility Study validated the earlier findings of Ecology. Tetra Tech researchers found arsenic, copper, zinc, and lead in the waters and sediment of the Sitcum waterway. The Tetra Tech study defined arsenic, copper, lead, and zinc as problem chemicals in the Sitcum Waterway (see Exhibit C).

11. Elevated levels of TPH, benzene, toluene, ethylbenzene, and total xylenes were found in the soil at the Site. It is suspected that these elevated levels are a result of a breach which occurred in a U.S. Oil crude oil transmission line on January 6, 1991.

12. The Site is located within the boundaries of the Commencement Bay/Nearshore Tidelands Superfund Site. This site may be a source of heavy metal contamination to the Sitcum Waterway.

13. U.S. Oil is currently conducting interim remedial activities governed by Ecology Order No. DE 90-I006 under the provisions of RCW 70.105.095. These interim remedial activities are being conducted to contain and check the migration of the January 6, 1991, oil spill.

15. As part of actions under Ecology Order No. DE 90-I006 contaminated soil has been removed from the site and placed in a containment area located on U.S. Oil property.

16. Also, as part of the interim action, U.S. Oil is currently intercepting flow of hydrocarbon contaminated water from a french drain system located beneath the spill area, extracting it, and treating it.

III.

Ecology Determinations

Ecology makes the following Determinations, without admission of such by U.S. Oil.

1. The Site is a facility as defined in RCW 70.105D.020(3) and U.S. Oil and the Port are "owners," as defined in RCW 70.105D.020(6).

2. Substances found at the Site described above are "hazardous substances," as defined in RCW 70.105D.020(5).

3. Based on the presence of these hazardous substances at the site and all factors known to Ecology, there has been a release or threatened release of hazardous substances onto the Site, as defined at RCW 70.105D.020(10).

4. By letters dated March 27, 1990 to the Port and Cascade Timber Co., June 27, 1990 to ASARCO, and June 5, 1991 to U.S. Oil, Ecology notified these companies of their status as "potentially liable persons" under RCW 70.105D.040 after notice and opportunity for comment.

5. Pursuant to RCW 70.105D.030(1) and 70.105D.050, Ecology may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances, whenever it believes such action to be in the public interest.

6. Based on the foregoing facts, Ecology believes the remedial action required by this Order is in the public interest.

IV.

Work to be Performed

Based on the foregoing Facts and Determinations, it is hereby ordered and agreed that U.S. Oil conduct a Remedial Investigation/Feasibility Study (RI/FS), in accordance with WAC 173-340-350, at the Site. The specific tasks for the RI/FS are described below in summary fashion and in more detail in Exhibit B attached.

1. First, this Order requires that draft and final RI/FS work plans be submitted to Ecology for review, comment, and approval.

2. Second, this Order requires full implementation and completion of the RI/FS tasks, as designated in the final, approved RI/FS work plan.

3. Third, this Order requires that draft and final RI/FS reports be submitted to Ecology for review, comment, and finally, for approval.

4. Fourth, this Order requires that U.S. Oil submit design calculations, engineering plans and specifications, and operation and maintenance plans for pump and treat operations.

5. Fifth, this Order requires that U.S. Oil submit an NPDES application for the pump and treat operation currently conducted at the site.

V.

Incorporation of Exhibits

All exhibits are hereby incorporated into this Order by reference and are integral and enforceable parts of this Order.

VI.

Terms and Conditions of Order

1. Definitions.

Unless otherwise specified, 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.

2. Public Notices.

WAC 173-340-600(10)(c) requires that, for agreed orders covering an RI/FS, the public comment period shall be at least thirty days in duration and shall be completed before the Order becomes effective. 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. U.S. Oil reserves the right to withdraw its consent

to this Order in the event Ecology modifies any provision without its written consent.

3. Remedial Action Costs.

U.S. Oil agrees to pay to Ecology costs incurred by Ecology pursuant to this Agreed Order in accordance with Ch. 70.105D RCW and Ch. 173.340 WAC. These costs shall include work performed by Ecology or its contractors for investigations, remedial actions, and Order preparation, negotiations, oversight and administration. Ecology costs shall include costs of direct activities; e.g., employee salary, laboratory costs, travel costs, contractor fees; and agency indirect costs of direct activities. U.S. Oil agrees to pay the required amount within 90 days of receiving from Ecology on a quarterly basis, 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. Failure to pay Ecology's costs within 90 days of receipt of the itemized statement of costs may result in interest charges.

4. Designated Project Coordinators.

The project coordinator for Ecology is:

Marc McKenna
Department of Ecology
Southwest Regional Office
7272 Cleanwater Lane, MS: LU-11
Olympia, Washington 98502-6811

The project coordinator for U.S. Oil is:

Daniel T. Riley
Manager, Environmental Health and Safety
3001 Marshall Avenue
Post Office Box 2255
Tacoma, Washington 98421

The project coordinators shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and U.S. Oil, 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 coordinators. Should Ecology or U.S. Oil change project coordinators, written notification shall be provided to Ecology and U.S. Oil at least ten (10) calendar days prior to the change.

5. Performance.

All work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with appropriate training, experience and expertise in hazardous waste site investigation and cleanup. U.S. Oil shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order; in advance of their involvement at the Site.

6. Access.

U.S. Oil shall make a good faith effort to secure access to the site for the performance of the RI/FS. IF U.S. Oil is unable to obtain access, Ecology will use its authority under Chapter 70.105D to provide U.S. Oil, its contractors, agents, and Ecology with site access.

If U.S. Oil acquires access to the site, Ecology, or any Ecology-authorized representative, shall have the authority to enter and freely move about the site at all reasonable times for the purpose of inter alia: inspecting records, operations logs, and contracts related to the work being performed pursuant to this Order; reviewing the progress and carrying out the

terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording or other documentary-type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by U.S. Oil. By signing this Agreed Order, U.S. Oil agrees that this Order constitutes reasonable notice of access, and agrees to allow access to the Site at all reasonable times for purposes of overseeing work performed under this Order. Ecology will notify U.S. Oil in advance that sampling will occur, and shall allow the splitting of samples taken during an inspection unless U.S. Oil fails to make available a representative for the purpose of splitting samples. U.S. Oil shall allow split or replicate samples to be taken by Ecology and shall provide seven (7) days' notice before any scheduled sampling activity and reasonable notice before unscheduled sampling.

7. Public Participation.

Pursuant to WAC 173-340-600, U.S. Oil shall prepare a public participation plan for the Site. Ecology shall maintain the responsibility for public participation at the Site. U.S. Oil shall help coordinate and implement public participation for the Site.

8. Retention of Records.

U.S. Oil shall preserve, in a readily retrievable fashion, during the pendency of this Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder be undertaken through contractors or agents of U.S. Oil then U.S. Oil agrees to include in its contract with such

contractors or agents a record retention requirement meeting the terms of this paragraph.

9. Dispute Resolution.

U.S. Oil may request Ecology to resolve disputes which may arise during the implementation of this Order. Such requests shall be in writing and directed to the signatory to this Order. Ecology resolution of the dispute shall be binding and final. U.S. Oil is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.

10. Reservation of Rights/No Settlement.

This Agreed Order is not a settlement under Chapter 70.105D RCW. This Agreed Order does not cover Natural Resource Damages nor contribution for Natural Resource Damages should these releases constitute such damage. 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 U.S. Oil to recover remedial action costs paid to and received by Ecology under this Agreed Order. In addition, Ecology will not take additional enforcement actions against U.S. Oil to require those remedial actions required by this Agreed Order with regard to the Site, provided U.S. Oil complies with this Agreed Order. Ecology reserves the right, however, to require additional remedial actions at the Site, should it deem such actions necessary.

11. Endangerment.

In the event Ecology determines that conditions at the Site are creating or have the potential to create a danger to the health or welfare of the

people on the Site or in the surrounding area or to the environment, Ecology may order U.S. Oil to stop further implementation of this Order for such period of time as needed to abate the danger. Ecology will notify U.S. Oil when implementation of the Order shall be resumed.

Conversely, if U.S. Oil determines that conditions at the Site are creating or have the potential to create danger to the health and welfare of the people on the Site or in the surrounding area or to the environment, U.S. Oil has the right to cease implementation of this Order. If the conditions at the Site do not appear to present, or have the potential to present, an immediate danger to life, health, and/or the environment, then U.S. Oil must notify Ecology of the decision to cease activities 24 hours prior to stopping work. However, if conditions at the Site present, or have the potential to present, an immediate danger to life, health, and/or the environment, then U.S. Oil may cease activities at the Site without delay. U.S. Oil must inform Ecology of this decision within 24 hours from the time it was made. In either case, Ecology will evaluate the situation to determine the magnitude of the danger and whether or not a period of work stoppage is needed to abate the danger. Ecology will notify U.S. Oil when implementation of the Order shall be resumed.

12. Transference of Property.

No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by U.S. Oil 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 transfer of any legal or equitable interest U.S. Oil may have in the Site or any portions thereof, U.S. Oil shall serve a copy of this Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in such interest. At least thirty (30) days prior to finalization of any transfer, U.S. Oil shall notify Ecology of the contemplated transfer.

13. Compliance with Other Applicable Laws

All actions carried out by U.S. Oil pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements.

VII.

Satisfaction of this Order

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

VIII.

Enforcement

1. 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 investigative and remedial actions and orders related to the Site.

C. In the event U.S. Oil refuse(s), without sufficient cause, to comply with any term of this Order, U.S. Oil may be liable for:

- (1) up to three times the amount of any costs incurred by the State of Washington as a result of their/its refusal to comply; and
- (2) civil penalties of up to \$25,000 per day for each day they/it refuse(s) to comply.

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

Effective date of this Order: November 25, 1991

U.S. OIL AND REFINING CO.

By *Alfred Chiodi* 11/7/91
Vice President, Date
Manufacturing

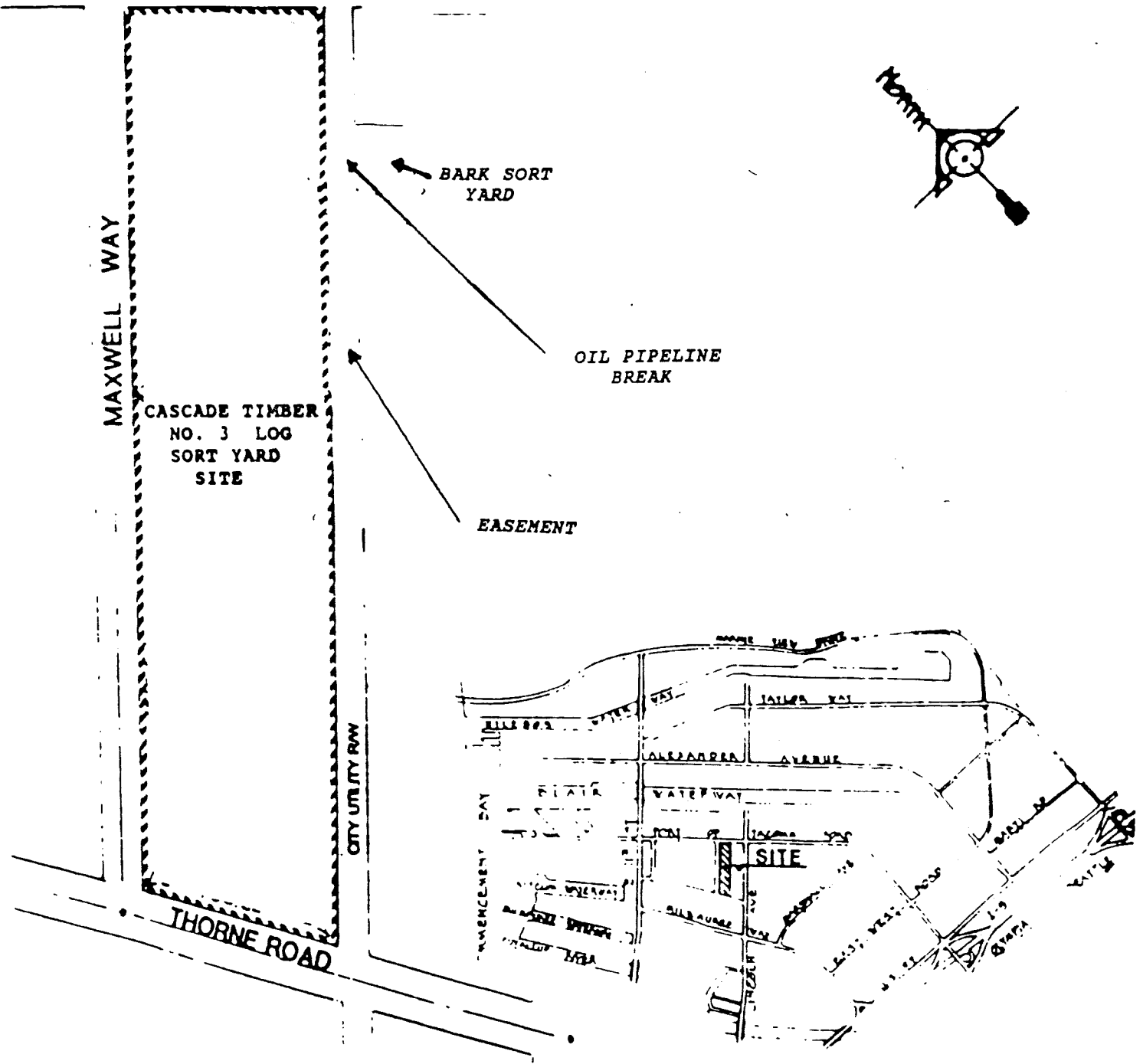
STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

STATE OF WASHINGTON
OFFICE OF THE ATTORNEY GENERAL

By *Megan White* 11/25/91
Megan White, P.E. Date
Southwest Region Supervisor
Toxics Cleanup Program

By *Jay Phillips* 11-18-91
Date

PORT OF TACOMA ROAD



VICINITY MAP

EXHIBIT A
SITE LOCATION MAP
CASCADE TIMBER NO. 3 LOG SORT YARD

EXHIBIT B

CASCADE TIMBER NO. 3 LOG SORT YARD
SCOPE OF WORK AND SCHEDULE FOR RI/FS
U.S. OIL AND REFINING COMPANY

All work performed at and around the Site pursuant to this Agreed Order shall be accomplished in accordance with Chapter 173-340 WAC. All submittals shall be in accordance with the requirements in WAC 173-340-840.

TASK 1 - DRAFT RI/FS WORK PLAN: Prepare a remedial investigation/feasibility study (RI/FS) workplan to characterize the contamination resulting from the January 6, 1991 U.S. Oil Spill per the requirements of WAC 173-340-350. A treatability study may be required as part of the FS. Incorporate the following sub-tasks as elements of the work plan. Include a detailed scope and schedule of tasks, up to and including submittal of the draft RI/FS report. Submit the work plan to Ecology for review and comment.

Schedule: This task, sub-tasks included, shall be executed within six (6) weeks after the effective date of the Agreed Order.

SUB-TASK 1.1 - DRAFT SAMPLING AND ANALYSIS PLAN: A draft sampling and analysis plan, to identify the vertical and horizontal extent of the inorganic and organic contamination of both the soil and groundwater at the site of the U.S. Oil and Refining Company (U.S. Oil) oil spill. The sampling and analysis plan shall characterize the Northeast portion of the Cascade No. 3 Log Sort Yard impacted by the U.S. Oil oil spill including but not limited to, the easement where the U.S. Oil transmission pipeline is located, and a nearby bark sort yard. The sampling and analysis plan shall be prepared in accordance with the requirements of WAC 173-340-820. Proposed analytical procedures shall be in accordance with WAC 173-340-830.

SUB-TASK 1.2 - DRAFT SAFETY AND HEALTH PLAN: All work performed at the site shall be in accordance with the provisions specified in WAC 173-340-810(1). A safety and health plan shall be prepared per WAC 173-340-810(2). The safety and health plan must be submitted to Ecology for review and comment.

SUB-TASK 1.3 - DRAFT PUBLIC PARTICIPATION PLAN: A public participation plan shall be prepared per WAC 173-340-600(8).

TASK 2 - INTERIM PUMP & TREAT OPERATION: As part of the Interim Remedial Action, U.S. Oil is operating a water treatment system at the Site to treat contaminated water. Submit design calculations, engineering plans and specifications, and an operation and maintenance plan for this water treatment system.

Schedule: This task shall be executed within two (2) weeks after the effective date of the Agreed Order.

TASK 3 - SUBMIT NPDES APPLICATION: Pursuant to WAC 173-340-710(1), (6)(a), and (7), and Chapter 173-220 WAC, U.S. Oil shall submit an NPDES application for the water treatment system at the site.

Schedule: This task, sub-tasks included shall be executed within six (6) weeks after the effective date of the Agreed Order.

SUB-TASK 3.1 - DRAFT ENGINEERING REPORT WORK PLAN: Pursuant to WAC 173-340-400(4)(a) et seq submit a draft engineering design work plan addressing treatment options for the ground water/surface water currently being extracted from the site. The proposed treatment system elements outlined in 173-240-130 should be addressed in the report.

TASK 4 - FINAL RI/FS WORKPLAN: Submit a final RI/FS work plan to Ecology for review and approval. The final RI/FS work plan shall address Ecology's comments on the draft RI/FS work plan.

Schedule: Submit the final RI/FS work plan within three (3) weeks after Ecology provides comments on the draft work plan.

TASK 5 - DRAFT RI/FS REPORT: Carry out the specific tasks of the RI/FS as designated in the approved final RI/FS work plan and submit the draft RI/FS report for comment.

Schedule: The specific tasks of the RI/FS shall be completed in accordance with the schedule in the approved final RI/FS work plan.

TASK 6 - FINAL RI/FS REPORT: Submit a final RI/FS report to Ecology for review and approval. The final RI/FS report shall address Ecology's comments on the draft report.

Schedule: This task shall be executed within four (4) weeks after Ecology provides comments on the draft RI/FS report.

EXHIBIT C

REFERENCES

Dale Norton, Art Johnson, Assessment of Log Sort Yards as Metals Sources to Commencement Bay Waterways, November 1983 - June 2, 1984, Department of Ecology, 1985

Tetra Tech, 1986. Commencement Bay/Nearshore Tidel flats Feasibility Study, (Final Report No. TC-3218-05, prepared for Washington State Department of Ecology and US EPA)

Tetra Tech, 1985. Commencement Bay/Nearshore Tidel flats Remedial Investigation, (Report No. TC-3752, vol. 2, prepared for Washington State Department of Ecology and US EPA)

U.S. Environmental Protection Agency, 1987. Site Inspection Report for Commencement Bay Nearshore/Tidel flats, Tacoma, Washington, (Report No. TDD F10-8612-12, prepared by Ecology and Environment, under US EPA contract no. 68-01-7347).

U.S. Environmental Protection Agency, Region 10, 1989 Commencement Bay Nearshore/Tidel flats, Record of Decision;

Port of Tacoma Map. Lease Exhibit 'A', Plum Creek Log Yard, Maxwell Way Site, Drawing No. CP-4229-3A, 1983